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Community Participation in water Projects:
The Case of Muyembe Dam in Zambia

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Dedications

I dedicate this research paper to my beloved family more especially my lovely son Bwalya Sashi IV and my wife Mwiche Nambela Sashi who endured my long absence without fatherly and husband's care.

To my brothers and sisters, Prosper, Trichard, Bright, Evelyn and Noreen Sashi whose efforts and support made it possible for me to remain focussed knowing for a fact that my family is being taken care of in my absence.

Finally, I dedicate my research paper to Ms. Julian Mwenge Sashi, mum with your encouragement and spiritual advice, I salute you. And not forgetting my late dad who laid a foundation for me. May your soul rest in eternal peace.

Acknowledgements

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List of Acronyms

CBWRM	Community Based Water Resources Management
CPR	Common Pool Resources
CRM	Community Resource Management
CSO	Central Statistics Office
DWA	Department of Water Affairs
FGD	Focus Group Discussion
GRZ	Government of the Republic Zambia
IWRM/WE	Integrated Water Resources Management and Water Efficiency
IWSC	International Water and Sanitation Centre
MCDDMCH	Ministry of Community Development, Mother and Child Health
MDG	Millennium Development Goals
M&E	Monitoring and Evaluation
MOFNP	Ministry of Finance and National Planning
MMEWD	Ministry Mines, Energy and Water Development
NWASCO	National Water Supply and Sanitation Council
SNDP	Sixth National Development Plan
UNDP	United Nations Development Programme
UNIDR	United Nations Institute for Disarmament Research
USAID	United States Agency for International Development
WRMA	Water Resources Management Act

Abstract

Inadequate and reliable water infrastructure to service communities is pervasive in Zambia, especially in rural areas. Under the Water Policy of 1994, the government of Zambia embarked on a rural water reform programme that includes the constructions of small dams guided by the principles of "participation" of rural communities. This paper explores the link between participation and sustainability of community managed water projects, drawing on the experience of Muyembe dam. Constructed in 2004, the Muyembe dam in Kawambwa, a place that experiences serious water crisis, collapsed three times since it was constructed, raising concerns in parliament about its rehabilitation in relation to benefits. The causal factors behind deterioration of dam may include technical as well as social aspects. Taking a social perspective, the paper shows how despite the government's commitment to the participatory approach and decentralising management in the water resources sector, clarity of roles in the informal and formal institutions to manage conflicting interests is absent. Unclear legal framework regarding the roles and responsibilities of actors can lead to non-accountability of Water Users Association to the people. Customary land use, gender relations and customary law in participation have not been taken into account. The study emphasizes that given the connection between participation and sustainability of community managed water projects, a clear understanding of contextual factors and the ability of actors to resolve the tension, or bridge the distance, between state-based institutional frameworks and locally embedded practices.is crucial to ensure success

Relevance to Development Studies

Sustainable water resource management is very crucial for poverty reduction and ensuring environmental sustainability. Unreliable utilisation of resources with the advent of global warming challenge has consequences on the survival of human beings especially that it contributes to the growth of any economy. Therefore, the introduction of decentralisation policy in the management of the water resources in Zambia down to community level is a move worthy exploring to bringing about dynamics in the levels participation in community resources management structures.

The study will add to the body of knowledge about water resource management in developing countries and also help policy makers to rethink on how issues of participation in community resources management especially with the enactment of Water Resources Management Act that encourages the creation of Water Users Association. Further, bring out missing links in the structures of community resources projects Management

Keywords
Community, Participation, Sustainability, Empowerment, Capacity Building

Chapter 1 Introduction

1.1   Statement of the research problem

1.1.1   Community Resource Management (CRM)

Blessed with abundant water resources, Zambia still faces the challenge of ensuring access to reliable water supply and sanitation, especially among the rural community. The Sixth National Development Plan 2011-2016 has programmes for developing water resources in Zambia to ensure access to citizens and the Millennium Development Goal Seven (MDG 7) is realised. One of the strategies advocated is the use of participatory approach and decentralising the management of water resources at community level.[1]. Decentralization of water management calls for application of common pool resources (CPR) resources principles to address the challenges of such systems.

But how people participate and contribute to the management of community resource management (CRM) especially from a gender perspective has not really received serious attention from policy makers apart from the usual rhetoric of supporting without serious looking into the spaces that can exclude other classes of people to participate. For instance, women and children are often excluded from participating in water resources management despite being involved in most activities that require the use of water especially in developing nations(Njoh 2002:242).

Many efforts are underway to decentralise the management of natural resources from the central state to the local communities in developing countries (Nygren 2005:639). These ideas of devolving authority to the local people have not left out the management of water resources.

The debate on community resource management (CRM) falls within a broader framework of governance of the commons initiated by Ostrom's idea on tragedies of the commons (1990). The gist of Ostrom's argument (Governing the Commons) is built on the rejection of an either or approach in the search for policy options, i.e. centralized government regulation versus privatization of resources (Ostrom 1990:13). She argues that a third way in the management of natural resources is possible through the conceptualization of certain shared resources (fisheries, ground water, irrigation) as "common pools" and the design of durable cooperative institutions that are governed and managed by resource users themselves (Ostrom et al., 1999:281). Ostrom's ideas were followed by a spate of empirically driven research on what kind of institutional management regimes in specific social and environmental contexts can, or cannot ensure equal distribution of benefits and responsibilities over a period of time to contribute to the sustainability of natural resources use (Clever 1999: 347-348).

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[1] This strategy is in line with Freire's central tenet (1968) see Corneille & Shiffman 2004:255

A consensus exists in regard to the importance of community participation in the management of community resources whereas the area of controversy lies with structural and cultural inequalities within communities and beyond. This is so because social norms and perceptions, rules of entry, personal endowments and attributes within which CRM is located determine who participates and who is excluded (Agarwal 2001:1638). Sen's notion of entitlement – defined as a collection of available options that a person may explore and command in a society using the totality of rights and opportunities he or she faces (Leach et al., 1999:232) can be used to show how forms of inequalities based on gender can affect the modalities of participation, distribution of benefits and responsibilities.

Participation has many faces and can be viewed from a variety of perspectives, not just resources but also contributions stakeholders are rendering towards the implementation and success of a project. In this regard, it is cardinal to establish who contributes, where and what for? The kind of contribution could be in form of labour, cash, knowledge and material support and leadership. Some people or individuals as leaders of associations or committees contribute by being accountable to the overall community for the running of the project, it could be the implementing agency or a committee selected to spearhead the project. Therefore, in these stages it is cardinal to identify who participates, in what form and for what? Leach et al (1997)'s environmental entitlements opined how local people consistently pursuit for power and control over natural resources with a view of achieving other objectives (Fabricius 2004:22). Such struggle in pursuit for power has consequences of having people excluded and included in the system.

CRM in this regard is based on the premise that beneficiaries internal to communities possess a greater interest in the viable utilisation of the resource than externals. Often, those who are external to the communities in question are not cognisant of the details of the local environment and practices. The local people are better placed to effectively manage their resources with the application of local and tradition forms of access (Brosius et al., 1998:158). In addition, CRM will facilitate and enhance the participation of local communities in making decisions through the devolution of power from the central government to the grass root level (Kellert et al., 2000:707). As Nygren (2005:639) observed, devolution of authority enhances the feeling of ownership by the local people, thus, become committed in the implementation, monitoring and enforcement of rules for the utilisation of the common resource. Pretty and Guijt (1992) defined CRM as a practice where local groups or communities partner together with the help of external support to facilitate the application of local skills and indigenous knowledge in the management of natural resources while sustaining their livelihoods (Leach et al., 1999:228).

In Southern African context there has been the heave of activities in the last two decades with nearly all countries initiating programmes aimed at allowing communities to manage and benefit from community natural resources (Campbell & Shackleton 2001:88). The paradigm shift has been necessitated based on the premise that resource user participation will be increased in natural resource management decisions and benefits by

devolving the power relations that exist between the central state and communities through the restructuring of management authority to the grass root level of organisation (Shackleton et al., 2002:1). The central focus of CRM in Southern Africa varies from country to country. For instance, in countries like Zimbabwe, Botswana, Zambia and Namibia attention has been directed towards wildlife management while Malawi and Tanzania the focus has been decentralisation of the forestry management(Campbell & Shackleton 2001:88). Studies carried out in Southern Africa revealed that devolution policies only provided limited benefits for natural resource management to the locals, without empowering them to make own decisions (Fabricius 2004:20). Access to resources regarded to be valuable is often restricted and management is reserved for the state (Shackleton et al., 2002:2).

Botswana and Namibia have made some strides in coming up with strong policy frameworks that transfer power and rights over to wildlife community organisation to ensure that local people participate in decision making process(Campbell & Shackleton 2001:92). However, policies that administer the involvement of local people in the management of natural resources in many Southern African countries are often not well harmonised and interdepartmental cooperation is weak and in some cases does not even exist(Fabricius 2004:20). This makes implementation of such policies in disarray. For example, in Malawi legal frameworks allow access and use of woodlands while the policy also encourages interdepartmental coordination but does not accord village-level organisation with legal power, this is in disagreement with Mc.Common et al (1990) argument that the rationale behind propagating for CRM is to allow local people have a say in how the project should be implemented and managed (Harvey & Reeds 2007:368). Therefore, the level of participation in a policy or development process can only be measured in the manner in which stakeholders possess power in decision making (Buchy & Race 2001:295).

In Zambia, under Kaunda's one party regime access to wildlife was restricted with a view to trying to sustain patronage networks of government and party officials (Virtanen 2003:182). State-led CRM has been targeted in many natural resources such as wildlife and water resources management among others. Little attention has been given to how local people are participating in the management of these natural resources to realise the idea of sustainability of such schemes. Studies carried on wildlife management in Zambia revealed that the organisation arrangement of wildlife management does not provide much freedom to communities to control or make decisions instead the state has all the authority (Campbell & Shackleton 2001:92-97). This ultimately, offers no mechanism to create space for the side-lined communities to have their voice heard since forums of wildlife management only composed of chiefs, members of parliament, wildlife department officials and councillors excluding the ordinary community people who are directly affected by the project (ibid).

In the water resources sector, the participatory approach and decentralising the management at community level is only nascent. Apart from the usual rhetoric of supporting community participation, policy

makers have not seriously looked into the mechanisms that can exclude people of certain identities (class, gender, age, and ethnicity) from participation[3].

1.1.2 Context of the Research

According to the Millennium Development Goals (MDG 7), "sustainable water resources management is very crucial especially for eradicating extreme poverty and hunger, ensuring environment sustainability and improving health conditions" (GRZ, IWRM/WE 2008: IV). In Zambia, continuous breakdowns of the water infrastructures entail difficulties by the rural poor accessing water for irrigation as well as home consumption. For instance, in 2004, only 37 percent of the rural population had access to water (GRZ, Zambia Vision 2030:25). Government's continued investment in community based water infrastructure raises many issues concerning the assumptions held by policy makers about "participation" and its relationship with "sustainability". This becomes critical for water resources management and analysing the relationship between participation and sustainability within the structures of local communities with a focus case of Muyembe dam.

In the water sector, since the 1994 reforms, the Zambian government has adopted idea of promoting integrated management that ensures sustainability of the resource by way of an "Integrated Water Resources Management" approach that ensures "balancing the trilogy of economic efficiency, social equity and environmental sustainability" (GRZ,IWRM/WE 2008:viii) allowing stakeholder participation (Uhlendahl et al., 2011:847). The main rationale behind these programmes is the belief that "for effective, efficient and equitable management of water resources total involvement/participation of beneficiaries to have a voice in decision making process" (Black & Hall 2004:49) in infrastructure design, implementation through to management leads to accountability and sustainability.

The Muyembe dam is one classical example of a community water managed project constructed in 2004. The adoption of "participation" as an approach in the case of this dam may have two origins. First, there is a general appreciation of participatory approaches to encourage people's commitment in bringing about their "ownership" of water projects, perhaps in line with the agenda to provide access to water. Second, there may be hidden beneficiaries who are pushing the government to give continuous attention to the dam. The principle of participation in the management of the dam may be discerned as follows: 1) the responsibility for the operation and maintenance of the dam is entirely with the community; 2) there is a dam committee which acts as a bridge between the government and beneficiaries to relay information either way in terms of status and management of the dam; 3) in an event that the damage caused is beyond their capacity in terms of technical know-how and funds for repairs, the government is obliged to step in do the work for the community.

The dam has broken down three times since it was constructed posing challenge to the local people to access reliable water supply thus raising questions of its viability. The government has not sat back but continued to invest in repairing the dam necessitating members of parliament to ask how much money the government has spent on doing the rehabilitations ever since it was constructed. Other issues have been raised by members of parliament with regard to the viability of Dam, the reasons behind the continued financial support by the government, and the lack of transparency concerning the amounts spent on rehabilitating of the dam[2]. These issues do reflect conflicting perspectives about the Dam itself and requires analysis to generate new knowledge that can contribute to the on-going discussions about its viability as a CRM facility.

The study drawn on the approach to CRM built on the model of the project management cycle in acknowledgement of the need to take into account: (a) the contextual realities in which a CRM-project is designed and operates; (b) the importance of identifying the different roles, needs and entitlements of community members (male as well as female) according to different phases of the project cycle[3]. In this approach, the unity of ideas hinges on three blocks: resources flow, participation and community. The project management cycle is a helpful tool to locate the key actors, the level of participation in each of the blocks.

1.2 Objectives and justification

The main objective of this research is to contribute new insights for policy makers to make informed decisions on the role of community participation and sustainability of community water management projects through devolution of power. By using the case of the instability of Muyembe Dam, the research may help not only the government on cutting down the expenditure but also provide an insight on how community organisation help in excluding and including beneficiaries in participation in CRM and ultimately provide more reliable management of the facility and continuous access of water to the communities of Muyembe. Finally, by exploring how power relations may have an effect on the management of water resources, the study also seek to contribute to the academic debate on the relationship between participation and sustainability in Community Water Management generally.

Specifically, this research seeks:

- To establish how devolution of authority to CRM can be enhanced to ensure sustainability of the dam
- To locate beneficiaries spaces for participation in Muyembe using project management cycle

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[2]http://www.parliament.gov.zm/index.php?option=com_docman&task=cat_view&gid=153&Itemid=113&limit=5&limitstart=0&order=name&dir=DESC- Accessed on 20/10/13

[3] www.unescap.org and www.aquaknow.net

1.3 Research Questions and Methodology

How can the project cycle management approach contribute to the improvement of understanding about community participation and resource flow in water resources management projects, and what can be learned from the Muyembe dam in terms of sustainability?

The following sub-questions are a guide in the answering the main research question:

How does the government frame the link between "participation" and "sustainability" in its policy documents, and how does this translate into the modalities of use to promote Community Water Management in Zambia

Throughout the project cycle, those perceptions about "participation" and "sustainability" are held by the various actors?

What are the key mechanisms of accountability (Government and dam committee of Muyembe dam) and how do they influence views on sustainability among members of the community of users?

1.4 Research Methodology

The research uses multiple methods. First a literature review of scholarly work on CRM and secondary data from government ministries, international and regional bodies in the water sector was conducted. Second, a review of implementation plans and speeches was made to update insights. Third, primary data collection through field work was undertaken with the main objective of sourcing for first hand data on what is prevailing on the ground. A project life cycle was employed to help locate at what level community members can participate in the management of the dam and how accountable are they towards the facility.

Under primary data collection, interviews, focus group discussions and questionnaires were employed as tools for data collection. Three (3) focus group discussions specifically for women were conducted to get extra information since they are the major users of water and in most cases they are left out of decision making process. Interviews were also used for officials from the Ministries of Mines, Energy and Water Development (MMWED), Community Development, Agriculture and The District Commissioner for Kawambwa where Muyembe dam is located and the Chief and his headmen from the three communities (Muyembe I, Muyembe II and Kambobe Villages) of Muyembe.

1.5 Data Collection Tools

1.5.1   Interviews

This tool was used for collecting data from government officials and traditional leadership. The rationale behind using this method is that the

government officials are busy people if left with questionnaires will have taken time for them to fill complete. In addition, interviews collect rich, in-depth qualitative data (O'Leary, Z. 2009:196) which others data collection techniques cannot tap. For example, it brings out (nonverbal) emotions expressions which cannot be obtained when using questionnaires.

1.5.2   Focus Group Discussion

A focus group discussion is a group interview which fundamentally capitalises on lines of communication between the respondent to collect data (Kitzinger 1995:299; Morgan 1998:1). The tool was used to specifically collect data from women who are the main users of water so that they can express their views freely in a group.[4]

1.5.3   Questionnaires

It is a mechanism for collecting information and opinions from selected research participants with structured questions which are filed in by the respondents (Aldridge 2001:6). This tool was administered because it is easier to gather large amounts of information of different opinions within a short period of time.[5]

1.6 Sample Design

1.6.1   Sample Size

The target number of respondents from the communities of Muyembe administered with questionnaires was thirty (30) and five (5) local leaders, while focussed group discussion comprised 5 members in each covering the three villages. A total number of eight (8) Government officials were interviewed. This brings to the overall target number of 60 respondents. The sample size was arrived looking at the time frame in which to conduct a field research and also the number was good enough to generalise the findings in that area

1.6.2 Sampling Technique

1.6.2.1 Purposive Sampling
Also referred to as judgemental sampling in which a researcher deliberately selects individuals to be included as opposed to statistical sampling (Jupp 2006:2; Pope & Mays 1995:43). The government officials and traditional leadership were purposively selected by virtue of being key

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[4] See Kitzinger 1995:299

[5] The researcher did not distribute questionnaires to respondents because the majority in the rural area of Muyembe could read and write. And as such the researcher read questions for research participants in their local language and fills the questionnaires for them.

and critical stakeholders in the project under study. These are key research participants who the researcher cannot afford to omit[6].

1.6.2.2 Systematic Sampling

This is a selection technique in which every nth case within a given a target area of study is chosen (O'Leary 2009:167). This technique was applied in selecting respondents from village registers. The selection involved selected every 10th person in the register in order to give an equal opportunity for the people to be included in the sample.

1.6.3   Selection of Muyembe as Case

The rationale behind selecting Muyembe dam as a case is based on my conviction and passion that remedial measures can found for people to continue having access to water without disruption and also ascertain how decentralisation of water resource management is implemented. Secondly, debates in Parliament about how much has been spent on the same dam for rehabilitation also justifies the reason to do a research so that the purported link between community participation and sustainability of water facilities can established. Thirdly, my understanding of culture, language and social political context of the area motivates me to do a study. Finally, this study area is for learning purposes and the subject directly affects my work. Therefore, the research findings will be shared with policy makers in the MMEWD, stakeholders in the Water Sector Advisory Group and National Assembly for them to make informed decisions in future.

1.6.4 Research Limitation

During the focus group discussion, certain group members were more assertive than others. Hence, their opinions dominated the discussion while others agreed with such viewpoints. This denied alternative views to be voiced out and recorded from those who kept silent. Therefore, some of the views are not a reflection of the group but only those that were articulate.

1.7 Organisation of the paper

In chapter two, looks at concepts and debates surrounding community resources management. Chapter three situates and discusses the notion of participation in Muyembe-Kawambwa, while chapter four present the case of sustainability. The final chapter covers the conclusion and recommendations.

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[6] Logic and power of purposeful sampling see Coyne, 2008:623.

Chapter 2 Community Based Water Resources Management: Conceptual and Analytical Perspectives

2.1 Introduction

This chapter provides an overview of the debates surrounding community based water management and perceptions of scholars and policy makers with regard to common resource management. Emphasis is placed on the following key concepts: "community–based water management", "participation", "sustainability" and social construction of their meanings. Central to the contemporary debates on democratic governance is the idea of redistribution of power and resources, including knowledge and decision-making, to promote the engagement of local communities to more effectively bring benefits to them. Rooted in the theory of common pool of resources, community-based resource management holds that participation is the key to sustainability. Some scholars have gone further to argue that participation is a prerequisite for sustainability as long as there is a continuous support from an over seeing institution to provide encouragement and motivation, monitoring, participatory planning and capacity building (Harvey & Reeds 2007:365). Here, I show how the debate on community-based resource management tends to take for granted the meanings of key concepts such as "community" and "participation", a tendency which has given rise to many questions regarding the notion of "sustainability" itself.

2.2 Community Based Water Resources Management (CBWM)

The concept of community based water management originates from the theory of common pool resources where users require some independence to develop and enforce their own rules that should guide them in the utilization and accessing of such resource. Community management are driven by the neoliberal framework that advocates for reduced state involvement and the empowerment **approach** based on citizens and communities involvement in ensuring water as a basic human right (Harvey& Reeds 2007:366) as stipulated by the United Nations. Studies done by scholars on common pool resources have different interpretations among the famous ones being Garrett Hardin (1992)'s "The Tragedy of the commons", Olson's "Logic of Collective Action (1965), the "Prisoner's Dilemma Game" and Paulo Freire (1970), "Pedagogy of the oppressed". Hardin argued that "users are caught up in inevitable process that leads to destruction of the very resources on which they depend". He believes that individual beings are selfish who if left without effective rules limiting access and rights can overexploit resources leading into a tragedy outcome. Demsetz (1970) and North (1990) further added their voice to the debate on CPRs arguing that CPRs would be exploited as demand rose unless the resource were fenced or protected by the state (Mansuri & Vijayendra 2004:4).

However, studies conducted under governing the commons indicates that in most cases individuals jointly using CPR communicate with one another and develop rules and strategies that improve their joint outcomes thus overcome the "Tragedy of the commons" (Gardner & Walker 1994:5). Paulo Freire (1970) argues that the oppressed needed to unit to

find a way to improve their own destinies (Mansuri. & Vijayendra 2004:4). This is one of the arguments which could be linked to the theory that supports community water based management as a way of empowering the oppressed space in decision making process through management of CPRs. Advocates of CBWRM claim that taking decision making to the beneficiaries of the resource make them accountable for their actions thus ensuring prudent management of the resource (Bradshaw 2003:137). This can also be looked at as a form of decentralisation from a central government perspective where authority is devolved to the community level, though critics like Agarwal and Ostrom (2001), observes that such a move is as a result of the inability by many governments to successfully manage CPR thus transferring the management to communities in the name of devolving power to the local level (Dolésak & Ostrom 2003:20). Although, authority is devolved to the community level, structural inequalities still exists in terms of class, gender, ethnicity that excludes some members of the community to participate.

It should be recognised from the outset that, community based management of resources still remains one of Africa's popular policy goal and touchstone for rural development because of the general feeling that, since, communities are defined by their tight spatial boundaries of jurisdiction and responsibilities, distinct social structure and people share a set of common norms of interests to all, management of such resources is likely to be done in an efficient, equitable and sustainable manner (Blaikie 2006: 1942-3). In Zambia management of water resources falls under two parallel paradigms, formalized and customary laws. Common law is practiced in urban areas while customary law is applied in traditional land in rural areas (Chileshe et al 2005:30-1). For example, in Western province of Zambia, the state has no control on the management of water resources because it is managed by custom law.

Some scholars have argued that customary practices have a tendency to encourage inequalities in having access to water and women are the most affected contrary to formalized laws that encourage gender equity(Van Kappen et al 2008:ix). In this regard, embracing of customary law by harmonizing it with modern water laws is crucial to sustaining implementation of water resources at community level (Munkonge, M 2007: Abstract). This lies at the heart of the concept of community and empowerment.

A community is defined beyond merely "inhabitants" of a certain location but as "a group of people having shared system of social structure; a self –contained operational unit; and a group with a feeling of belonging or community spirit" (Gasper 2004:206). Gasper (2004) further points out that, community can also imply a group of people in which all inhabitants form part of a network of interaction, even if it is not self-contained. A community is also defined as a group of people with different characteristics who are connected by virtual of social ties, share common values, norms, ideology, beliefs and view points, and found in a defined geographical boundary (Macqueen et al., 2001:1929). Therefore, a community is not just a group of people confined with geographical connections, for instance a village, settlement, town or district, but it also

encompasses those brought together by lifestyle, religion, affiliation and interests[7]

In this regard, management of CPRs by communities have serious challenges because individuals have different interest and background and women are the most affected. Different communities have different beliefs and social structures that exclude others from benefiting and contributing towards decision making process. Such exclusion and side-lining of women have repercussion on the sustainability of CPR considering the fact that women are the most users of the water (Njoh 2002:242). Agarwal (2001:1628) argues that women are rarely consulted but when given chance to offer solutions they often provide more suitable alternatives. Therefore, the issue of women and rights to CPR and community as concept is discussed in detail later the other sections.

Empowerment is "a process of emancipation in which the disadvantaged are empowered to exercise their rights, to obtain access to resources and to participate actively in the process of shaping society and making decisions" (Scrutton & Luttrell 2007)[8] Kabeer (2001:19) view empowerment to refer to the expansion in people's capacity to make democratic choices which before were denied to them. This entails granting freedom to them to make and define priorities and enforce claims. For instance, in this context, empowerment implies that changes in the hierarchies and conditions laid down are broken to allow the disadvantaged access. Allowing communities to participate in the management of their affairs forms a basis for trust and empowerment from the government. This can be strengthened by building a feeling of ownership that is based on effective communication and genuine engagement of community members in decisions making process where they can appreciate that their contributions are considered and make a difference (Manikutty 1997:135).

Phiri (2000:4) is of the view that customary approaches regards water as a common resource that emphasises community interest. That is to say all the people have access to the resource regardless of their status in society. Consequently, community based water management approach endeavours to encourage better options of water management outcome with full involvement of communities and resource users in decision making and incorporate customary practices and knowledge systems in the management(Armitage 2005:70) and through such engagements and participation, capacity is being built in the people. It should be noted that community management is likely to flourish when adequate capacity to operate and maintain facilities is built in the beneficiaries (Musonda 2009:58).

Community-based management of projects plays a central role in building capacity in communities as a result of devolution of decision making power and authority that is expected to address critical issues related to the access, control and management of common resources. United Development Programme (UNDP) (1998) defines capacity as

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[7] www.breconbeacons.org

[8] http://afghanlivelihoods.com/virtuallibrary/Right%20Based%20approach/operationalisation-of-empowerment-in-different.pdf

having the "ability to perform assignments effectively, efficiently and sustainably" (Franks et al., 2008:262). Capacity building focus on understanding the obstacles that inhibit people from realizing their development goals while enhancing the abilities that allow them to achieve sustainable results.

Fischer (1980) described capacity building as a system of developing communities with skills to concretise internal structures that enable continuous progress with less external direction (Fogarty 2012:3). Many projects fail to deliver the level of benefits expected of them because in most cases much emphasis has been on the development of infrastructure without giving proper attention to people in charge of managing such facilities (Frank 1999:52). It is very cardinal for implementers to develop human capacity simultaneously with project implementation if the desired objectives of the programme are to be met.

Once communities are capacity built with skills, they should be able to garner competence and confidence in undertaking on tasks without outside intervention because this could also be boasted by the experience and knowledge they have on the resource. This entails communities providing local solutions to local problems without external resource reliance. Atkinson &Willis (2006:2) further went on to describe capacity building with an inclusion of community, as series of grassroots process by which communities:

- Organise and plan together
- Develop healthy life styles options
- Empower themselves
- Achieve social, economic, cultural and environmental goals together

Community based management approach efforts are usually based on the premise that communities closely linked to resources are mostly likely to foster sustainable resource use and possess the knowledge required to do so. And as such it can be highly effective in managing resources, providing basic infrastructure and ensuring primary social services as result of the link concerns of social equity, traditional resources access and use right (Armitage 2005:70; Narayan1995). In addition, community based approach to water management is aimed at strengthening the capacities and willingness of the communities to take ownership and responsibility of managing their facility especially in an event that the implementing organisation hands over the project (Moriarty & Schousten 2003:2).

This approach can also be looked at from a partnership arrangement between the government and communities with clearly defined roles that can enhance a sustainable management system that allow for tasks to be allocated according to capacity to handle them (Reed et. al., 2002:17). Under this approach there is a realisation that inasmuch as communities take a lion share of responsibilities and being the major beneficiaries from such projects, external aid still remains critical because there is an extent to which the communities are able to manage such tasks (IWSC 1993:33-34) especially where colossal sums of money is required for the realisation of the objectives in case the facility develops some defects. In this regard, successful devolution of CRM requires governments to first address the

capacity of communities to manage the resource through legal, financial as well as technical aspects. In Sub- Sahara Africa rural areas are generally characterized by high levels of poverty. Contributions to the rehabilitation of facilities become a challenge for low-income households. From this perspective, this partnership has to strike a balance in terms of the portion of each partner's contribution so as to enhance community's commitment towards managing community based projects with a sense of ownership.

2.3 Sustainability

Sustainability is defined as "development that meets the needs of the present without compromising the ability of future generation to meet their own needs" (Berkes and Folke 1998:4). It can also be defined as the capacity by the community to maintain a project and the benefits that accrue to the users even after the implementing agency hands over without negative effects on the environment (Hoko & Hertile 2006:700). Other scholars define sustainability to mean continuity of benefits through time (Shearman 1999:3) that results from the project beyond the implementers that stimulated the benefits have long gone (Cannon 1999:12). This entails that the implementing agency that happen to be the source of the benefits that accrue to the project may have gone or changed but benefits are still visible due to the fact that the demand for the same is very strong. Therefore, sustainability can be said to be something that can be kept going or maintained.

However, in our situation sustainability means encouraging the beneficiaries of water infrastructures to manage them through formation of dam maintenance committees that could promote long lasting of the dam, access and benefits of water to all users (Nyambe & Fielberg 2009:34, 59). Stephen (2010:9) observes that responsible ownership of the dam and its catchment by the community regardless of which agency is implementing the development is important for future maintenance and longevity of the structure.

Some scholars have observed that sustainability of projects hinges on certain factors such as institutional arrangement, financing capacity of a community, human capital development, policy and technological and management issues (Hoko & Hertile, 2006:704; Musonda 2009:38). According to the research conducted by Katz and Sara (1998) it was established that the presence of well "formal community organisation that operates the system affects the overall sustainability of a water system" (Hoko & Hertile, 2006:704). It was observed that sustainability considerably on lower side in project areas which lacked formal community organisation. In this regard, it should be realised that sustainability of water facilities can be achieved with the help of effective complimentary inputs as already alluded to above.

Studies done in community based water management indicates low levels of sustainability as a result of lack of ownership and limited community management structures(Harvey & Reeds 2007:365-6). It is argued that ownership and maintenance of water facilities could be

improved only when users of such facilities are made to contribute towards the development of such facilities (Hoko & Hertile, 2006:704). It can be argued, though, that there is no guarantee that the facility would be sustainable when communities contribute unless it is demand driven.

Further, policy issues are also very critical in ensuring the sustainability of a project. The aim of a policy is to provide an overall development direction of the sector. A policy being an expression of purpose covers projects and programmes levels (Gasper 2006:635) with an outlined strategy and framework of implementation. Accordingly, a policy plays a pivotal role in the enhancement of water facility sustainability as result of providing a mechanism through which a project can be developed and at the same time showing commitment on part of the government towards the project(Musonda 2009:38).

But policy formulation and development should be done with the full involvement and participation of all stakeholders who will be directly or indirectly affected by such a policy. However, sometimes the reason behind the lack of the sustainability of community self-managed dams, and their deterioration may lie at a level, often insufficiently recognized by policy-makers, for instance, the local rules of water management such as customary land and water laws which are not subject to state law implying that the state has no space to perform any functions for example in Western Province which is regarded as Riparian (Chileshe et al 2005:).

In addition to policy issues, a clear legal framework is required in defining roles and responsibilities of actors. In the absence of a clear and sound law, commitment and accountability of actors is likely to be compromised (ibid). For example, lack of legal status and authority of the water users associations may exacerbate community members' failure to contribute towards maintenance fees because leaders lack community cohesion.

The capacity of community to sustain a water facility in relation to operation and maintenance is another important issue to look at. Weak institutional framework with no clear line of responsibilities cannot lead to sustainability of project. It is argued that community management of water facilities could be achieved if only roles are devolved from the central government to the local level thereby strengthening local institutions. Evidence of studies carried out in Zambia, Uganda and Ghana indicate that community management is sustainable only where a strong local institution is in place to support the communities (Harvey & Reeds 2007:372). This should also be in line with the type of technology being employed. The choice of technology in community based water management is very crucial to the sustainability of water facilities because the type of technology selected will have an effect on the operation and maintenance of such a facility (Musonda 2009:41).

2.4 The Community

According to Ostrom (1990)'s work he argued that central to CRM approach were to empower poor people in communities in response to

critiques of top down approaches (Mansuri & Rao 2004:5). But the question to be posed is what the community is and how is it arranged to accommodate different categories of people to participate considering the fact that communities cannot be treated as fixed but a unity made up of active individuals and groups. Other important questions can be raised with regard to distribution of power and benefits of CPR in a diverse and divided local setting. Hobley(1992) and Sarin(1995) suggests that in a community the interests of certain social groups have remained constantly ostracised(Leach et al., 1999:226) impacting on how different social actors gain access to participate and control over CPRs. For instance, it not just a question of incorporating certain classes of people in a project but also how power relations are dealt with from a gender perspective. "The nature and extent of participation in a development process can be measured in terms of how power and roles that different stakeholders have in decision making process" (Buchy & Race 2001:295).

Studies reveal that communities play a key role in facilitating decentralisation, participation, and collective action, unfortunately, little attention has been accorded to the heterogeneity of actors within communities and how they look at utilisation of such resources(Nygren 2005:639). This heterogeneous nature of communities has a bearing on people's participation. As observed by Botes & Van Rensburg (2000), "In heterogeneous communities, people are often less likely to participate due to divisions of language, tenure, income, gender, age or politics than in less diverse communities" (Botes & Van Rensburg 2000:49).

Further, institutional arrangements within communities both formal and informal determine the pattern of resource management. Inasmuch as devolving management of resources endeavour to empower the grassroots, issues of who is accorded the authority to represent and make decisions on behalf of the local people still remain unresolved thorny matter(Nygren 2005:646). Ribot (1999:22) contends that empowering indigenous authority is in no way a panacea to address the helmets of equity, representation, accountability and community participation. Many times policies that aims to devolve power to the local people confine in local government and traditional authorities as legitimate sources of authority with no much regard to ascertain whether these actors are answerable to the people they govern(Nygren 2005:46).[9]

Consequently, it is imperative to dig deeper and consider the role of local power relations such as customary land use, gender relations and customary law in participation. A more inclusive bottom up approach to managing water resources cannot neglect gender as power relations at play (Resurrection et. al., 2004:520). This may have a bearing on how people within communities are participating in the management of development projects. For instance, in some communities women may be reluctant to participate in management structures that they may consider being a preserve of men because they face norms that reduce them to work on

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[9] Any significance act of decentralisation is determined on the basis of "what is being devolved and to whom" (Ribot 1999:39).

what are regarded as women specific tasks (Mansuri & Rao 2012:274, Chileshe et al., 2005:30-7).

Unless these informal and formal institutions are addressed with the reconciliation of conflicting interests, successful CBWRM will be hard to achieve (Nygren 2005:639). As observed in Uphoff (1992)'s work, institution especially at local levels plays a significant part in mobilising and regulating the consumption of the local resource for their long term sustainability (Uphoff 1992:2).

2.5 Participation

Participation has become a major ingredient in many development initiatives because it is seen as a channel of increasing the effectiveness and efficiency of projects, ultimately leading to sustainability of such projects through the enhanced commitment of members especially when sharing is involved (Manikutty, S. 1997:115) It has become fashion by governments and developing agencies to be employing participation in project initiatives in anticipation that the process will be more democratic and hence legitimate.

However, this could be determined by the kind of participants who are active and effective in the management of decision making process (Buanes et al 2004:207). According to Paul (1987), "Community participation [is] an active process by which beneficiary or client groups influence the direction and execution of a development project with a view to enhancing their well-being in terms of income, personal growth, self-reliance or other values they cherish" (Parfitt 2007:538). In democratic terms, participation offers a platform for people to express their views and concern in an open and free manner. Often times, participation is applied for various reasons depending from which end one is involved in.

According to Pretty (2005), there are seven different categories of participation each with its own characteristics and these are; manipulative; interactive, functional, self-mobilization, passive, consultative and participation for material incentives (Cornwall, 2008:271). These categories are useful in exploring how communities are involved in the all process of project development and management, at what level and with whose benefit it intends to achieve. This is further useful in interrogating the spaces of power provided for gender participation from both the government and community perspective.

Agarwal (2001) observed that, people's participation is critical as it acts as a measure of citizenships rights and form of empowerment and voice. It is the means of building capacities of the grass roots and the local beneficiaries especially when it is based on an open consultation with all beneficiaries which paves way for better reflections on people's priorities (Manikutty. 1997:115). Therefore, excluding women or ignoring of gender could potentially worsen power relationships and disempower the women excluded (Agarwal 2001:1630). What is also clear is the fact that participation is not an open and spontaneous practice in which all stakeholders are equally involved thus resulting in a 'free consensus' on the issues under discussion. Rather it is a complex political system in

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which resources and power dictate the forms in which it occurs (Mayoux 1995:245). But what is most paramount according to King et al (1998) is that, "enhanced citizen participation often rest on the merits of the process and the belief that an engaged citizenry is better than a passive citizenry". Therefore, active involvement in community issues becomes crucial in ownership of decisions made in such communities.

The arguments in support of strengthening stakeholder involvement in most cases emphasises the benefits of the process itself. For instance, some scholars view participation as a transformative tool for social change, this entails that citizen involvement envisaged to result in democratic decisions that could bring about more efficiency benefits to the entire community (Wester. 2004:56). Subsequently, people are empowered as a result of taking an active role in making their own decisions to which they are accountable themselves.

In summary, democratic governance in the area of local resource management boils down to how the methods of involvement, inclusion and participation can lead to social equity in resource use. Therefore, through participation the weak in communities get a chance to influence decisions through getting their particular need on board (Mayoux 1995:253) by analysing their own realities and to act in their own interests. For instance, the empowerment approach to gender issues argued that change is to be driven by self-mobilisation of women as collective action which subsequently could culminate into social transformation and likely contest to existing power structures (Pati 2006:23) because both men and women belong to different social groups.

Gupta 2003 argues that participation widens the chain of bureaucratization in turn increases expenditure associated with planning process (Uhlendahl et al., 2011: 848). It is argued that some decision may take a month to be made when communities are involved when a policy maker can make the same decision within a day (Wester, 2004:58). Gupta (2003) further critiqued participation to represent the interest of the few privileged individuals. For example, citizen participating in community decision making are not paid for their time spend during meetings thus established communities ends up being dominated by strongly partisan participants whose interest may be contrary to the majority mass (Ibid).

Participation has also been critiqued not to offer real benefits in terms of long term effectiveness of empowerment and sustainability of improving conditions of the disadvantaged people but an act of faith in development, something elusive and we rarely question (Cleaver 1999: 597). In addition, community participation can only be sustainable when there is a system for organising the community, for instance, capacity to manage the water facility if it has to be sustainable (Musonda 2009:45). Other scholars have argued that participation is nothing but an instrument for encouraging practical policy interests contrary to the assertion that it is a means for fundamental social transformation. In real terms, it simply transfer some of the costs of service delivery to would be beneficiaries of
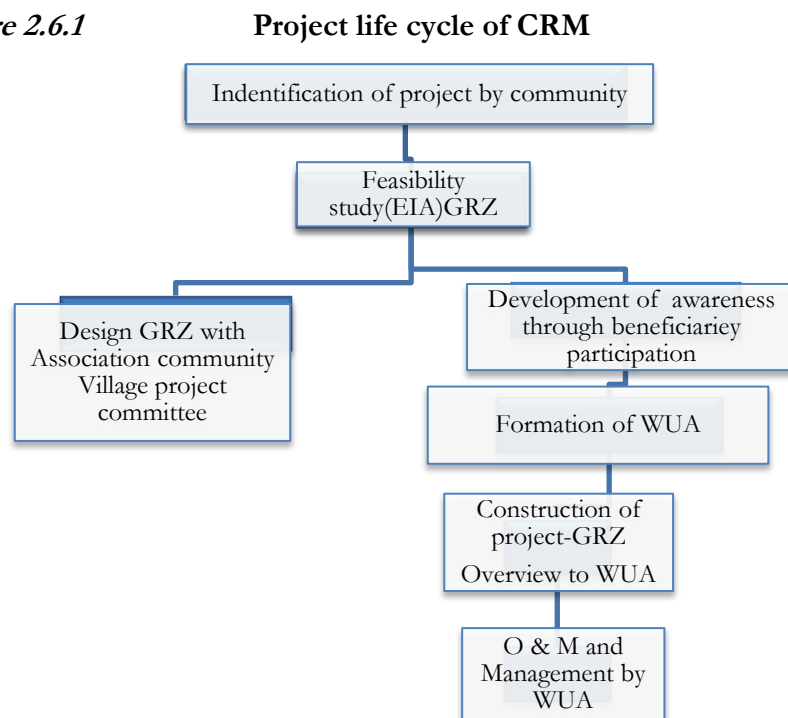
the facility, consequently, putting pressure on the rural poor into "making far more substantial contribution than the rich" (Mansuri & Rao 2004:7).

Notwithstanding arguments against participation, the approach is still receiving support in many community projects. It's should however be realised that it is cardinal to involve the community in the planning cycle through to the implementation of the project at an early stage.

2.6. Project Cycle Management

Institutional arrangements determine how spaces are created for people to be included or excluded in the decision making process. In this regard, participation should be studied in terms of power relations in a given society that allow some people participate and exclude others on the basis of their identities (gender, class, and ethnicity). In this regard, the project management life cycle tool may be useful to locate at what level communities participate in the life of a project, which certain categories of people are included or excluded in the process.

Figure 2.6.1   **Project life cycle of CRM**

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            ┌──────────────────────────────────┐
            │ Indentification of project by community │
            └──────────────────────────────────┘
                           │
                    ┌──────────────┐
                    │ Feasibility  │
                    │ study(EIA)GRZ│
                    └──────────────┘
              ┌───────────┴────────────────────┐
    ┌─────────────────┐          ┌─────────────────────────┐
    │ Design GRZ with │          │ Development of awareness │
    │ Association      │          │ through beneficiariey    │
    │ community        │          │ participation            │
    │ Village project  │          └─────────────────────────┘
    │ committee        │                     │
    └─────────────────┘          ┌─────────────────────────┐
                                 │    Formation of WUA     │
                                 └─────────────────────────┘
                                             │
                                 ┌─────────────────────────┐
                                 │  Construction of        │
                                 │  project-GRZ            │
                                 │  Overview to WUA        │
                                 └─────────────────────────┘
                                             │
                                 ┌─────────────────────────┐
                                 │  O & M and              │
                                 │  Management by          │
                                 │  WUA                    │
                                 └─────────────────────────┘
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Source: Adapted and Modified: Local Government Engineering Department, 1994

The chart above illustrates the ideal situation of how beneficiaries are engaged in the planning and management of small projects;

a) Project identification- the community identify project and share the idea with government official. Government studies and project coordination committee approve the project

b) Feasibility study: At this stage GRZ engineers undertake scope and feasibility analysis in consultation with local leaders, water

management association, beneficiaries- WUA established with members representing (beneficiaries)villages and subgroups

c) Detailed design: Engineers design the project in collaboration with WUA. Then the responsibility of WUA regarding contribution to construction and O & M is financed.

d) Implementation: construction supervised by GRZ with participation from WUA. After the completion of the works, project Is hand over to WUA to manage

e) O & M and monitoring- Inspection is done by the WUA to plan for O & M and report by indicators for M& E benefits.

But from the actual situation prevailing, the communities in the project life cycle are not involved at design stage which is crucial. In addition, other stages in the cycle, representation in WUA and operation and maintenance tend to exclude certain categories of people basing on level of education, gender and property ownership. It is evident that almost in the levels of the cycle exclusion can take place. Competing interest within the project management cycle at various levels as well as issues of participation especially at community level deserve greater received enough to ensure a more inclusive approach to CRM decision-making process.

2.7 Concluding Remarks

The literature on community based water management has shown that "participation" cannot lead to sustainability of water facilities. Some scholars have argued that participation lead to ownership and subsequently sustainability of projects because beneficiaries become responsible for such facilities, a sense of responsibility alone is not all that enough to guarantee long term sustainability of a project. Sometimes, community involvement in projects by implementing agents is not as genuine as it could be perceived to empower communities to play a role in selecting an appropriate project that could directly affect their welfare but an attempt to sell preconceived proposals (Botes & Van Rensburg 2000:43). As indicated by Dunker, (1991:700), sustainability of community based water management could only be achieved with complementary inputs in place both internal and external. Stakeholders need to be reminded all the time about their roles and responsibilities in order to realise the main objective set.

Chapter 3 Water Reforms and Participation in Zambia: The case of the Muyembe Dam

3.1 Introduction

This chapter presents the research findings on "participation" regarding the Muyembe Dam. A brief background of water reforms in Zambia and the legal and policy frameworks is provided, followed by a discussion on Muyembe village in Kawambwa district as the case of study, highlighting its key geographical and socio-demographic features. An analysis of the notions of "participation" held by the actors involved in CRM in Muyembe will also be provided.

3.2 Water Reforms and Participation in Zambia

3.2.1 Water Reforms: Legal and Policy Frameworks

In Zambia access to safe and clean water is a challenge especially in rural areas. Most of the water infrastructures were built in the mid-1960s and late 70s. At that time water was provided for free by the state and little attention was accorded into sustaining the services. There was minimal role of people to participate since the state took full responsibility of management and development of water resources. In this regard, during the first republic people were not active in community management of resources as it was the prerogative of the state to serve its citizenry.

The water reforms started in the early 1970s but were full enforced in the 1990s to address the deteriorating performance of the sector as result of weaknesses in the legal, policy, institutional and organisational framework (NWASCO 2002:2)[10]. The other goal of the water sector reforms were to separate water resource management from water supply and sanitation provisions.

3.2.2 Legal Framework

The development and management of water resources in Zambia is guided by the Water Resources Management Actor No. 21 of 2011(WRMA). The Act replaces the 1948 Act cap 198 which did not provide for adequate legal and institutional framework for regulating and development of water resources. The act also lacked commitment towards stakeholder participation in the management of water resources.[11] The WRMA 2011 defines roles and responsibilities of actors in the water

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[10]http://www.nwasco.org.zm/media.php%3Fcat%3D8%26ext%3D. php accessed 11/11/13
[11]http://planipolis.iiep.unesco.org/upload/Zambia/PRSP/Zambia%20PRSP%2 02002.pdf accessed 31/10/2013

sector and it offers provision for the establishment of the Water Resources Management Authority.[12]

According to the current act the MMEWD has been mandated the responsibility of being in charge of development and management of water resources in Zambia. Therefore, with the creation of the Water Authority responsibility of issuing water rights has been devolved to the authority.

3.2.3. Policy Framework

The water sector is guided by the 2010 National Water Policy which replaces the 1994 policy. The 1994 water policy was reviewed under the rationale of addressing "the new challenges and approaches that embraces modern principles regarding water resources management" (GRZ National Water Policy 2010: IV, 24). The Water Policy is being complemented by the 2011 WRMA, Sixth National Development Plan (SNDP) and the Integrated Water Resource Management Efficiency Plan (IWRM/WE).

The vision of the water policy is "*To optimally harness water resources for efficient and sustainable utilisation of this natural resource to enhance economic productivity and reduce poverty*" (GRZ, National Water Policy 2010:28). It affords a bearing and sets an agenda for management, improvement and utilisation of water resources. The policy endeavours to promote effective community participation and stakeholder's involvement especially women and children through creation of structures that will facilitate participation (GRZ, National Water Policy 2010:30, 48). This is also being backed by the WRMA which stipulates that women shall be empowered and fully participate in issues and decisions related to sustainable development of water resources and specifically, in the use of water (WRMA No. 21 of 2011:281).

The SNDP and IWRM/WE are some of the strategies the government is using to ensure that the right to water is realised by all its citizens.[13] But the legal frameworks that grants authority to community to participate (WRMA No. 21 of 2011:281) and make independent decisions was only enacted and made public in 2012 implying that the community water users association/dam committees have been operating all along without legal backing hence making it difficult for leadership to be accountable in the execution of mandates to its people. Although policy and legal frameworks have sound terms with regard to their principles, definitions of some roles and responsibilities are not adequately defined. For example, community ownership of common pool resource still remain unclear making it difficult to locate at what level and extent the communities can participate in CRM.

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[12] The function of the Water Authority is to "promote and adopt a dynamic gender-sensitive, integrated, interactive, a participatory and multi-sectoral approach to water resources management and development (WRMA No.21 of 2011:283).

3.3. The Main Actors at National and Local Level

At the national level, the main actors involved in the implementation of policy are the ministries of Finance; of Mines, Energy and Water Development; of Agriculture, Community Development, of Local Government and Housing. Others are ministries of Lands and Environmental Protection, of Health, Transport and Communication and Zesco Ltd. In 2003 Sector Advisory Group (SAG) were established under the Ministry of Finance (MoFNP) at national level as a forum for initiating planning, implementation and monitoring and evaluation of projects in the water sector. The SAGs provides a platform for stakeholders in the water sector to give advice to government on sector performance and also contribute towards budgeting, delivery and implementation of policy (Uhlendahl et al., 2011:854). However, the water SAG has a challenge of "joint planning and implementing of water related projects emanating from competing sectors and capacity to effectively monitor and evaluate the impacts of the programme"(GRZ, IWRM/WE, 2008: 41).

At the local level these ministries cooperate with Office of the District Commissioner, traditional and local leaders and the community members.

In the case of the Muyembe dam, the sharing of responsibilities is as follows:

MMEWD is responsible for planning, development and water management.

MOFNP is mandated and responsible for the mobilization of finance for the implementation of projects.

MCDMCH is responsible for community mobilization and awareness.

Ministry of Agriculture is responsible for facilitating and training communities in irrigation and abstraction techniques skills in communities. The District Commissioner being the head of the district is a key actor in the aspect of policy guidance and financial lobbying from the treasury.

Traditional leaders are the custodians of the land and the leaders of their own people. Finally, the communities who happened to be small-scale farmers are supposed to provide a service and the same time benefit from the resource.

Figure 3.3.1   **Resources Flow Chart**
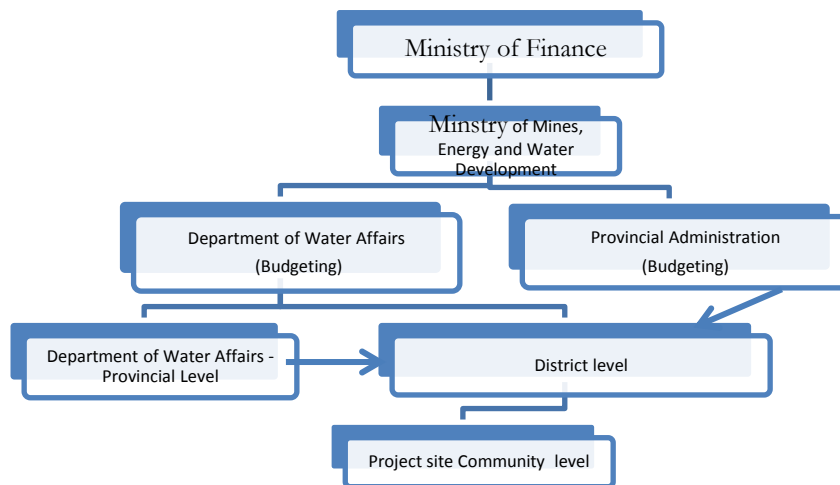
The government provide funds for the implementation of projects through the budgetary allocation (GRZ, IWRM/WE 2008:52). Budgeting is done at ministerial and provincial levels with a specified ceiling and then submits to the MoFNP. The MoFNP is responsible for mobilising resources and release to the ministry responsible for implementing for onward transmission to project area as indicated in the above chart.

Monitoring of projects are done using the hierarchy in the above chart starting from the bottom at community level. But there is no coordination in between institutions in the water sector and the SAG as a forum mandated to harmonise sector giving government on policy direction is facing challenges. Institutions prefer to work independently and not as a sector leading to duplication of work as a result of an uncoordinated implementation of projects. Ultimately, this has a bearing on decentralisation of community water resources management.

3.4. The Muyembe Dam and Its Local Environment

The Muyembe Dam was built in 2004 along Lubulafita/Kanwabatemi River in Kawambwa District. The district is situated on a plateau 9°48'south, 29°4'East, with an altitude of 1300m above the Luapula valley. The district has a tropical wet and dry savannah climate and it is adjacent to the subtropical moist forest biome[14]. The area receives an average annual rainfall of 1378.6mm (54.3 in). The district sits at the junction of gravel roads to Mansa direct through Chipili, Mporokoso, Nchelenge and Mushota and a tarred road to Mbereshi connecting to the other major Zambia ways[15].

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[14] (www.kawambwa.climatemps.com-Accessed 16/10/13

[15] Roads are called by their district names e.g. Mansa- Kawambwa Road, Kawambwa- Mporokoso road

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Map 3.4.1: Map of part of Luapula province showing the location of Kawambwa

Adapted from Google satellite map image Accessed 25/10/13

The economy of Kawambwa is dominated by small scale farming that grows maize, cassava, vegetables and millet. It is in this district where the largest tea company in Zambia is located. Its economy is also complimented by two of Zambia's natural wonders, the Lumangwe falls about 50km to the north-east on the Kalungwishi River and Ntumbachushi falls on the Ngona River, 16km. It is situated on a plateau in the sparsely populated farming area of Kawambwa district with an approximate distance of 25km from the district town.

The population of Kawambwa district is 134, 414,[16] with the majority being females at 50.7 percent. Many people in this area struggle to find employment to support their families beyond small scale farming. According to the Living Conditions Monitoring Survey (2006-2010: xxxiii), Zambia's rural population poverty levels stood at 77% as at 2010.

The area is a home to sub-chief Muyembe. Like any other rural areas of a developing nation, Muyembe experiences high poverty levels and early school drop outs with school infrastructure which leaves much to be desired[17]. It can be argued that the wellbeing of human beings in society is largely depends on their participation in gainful economic venture for survival. Arising from that, the majority of respondents who constitute 82% in the case under study are small scale farmers. However, there is a challenge of access to adequate water supply that necessitated the government to construct a dam. Prior to the building of the dam, the major sources of water supply in Muyembe were from seasonal streams and shallow wells[18].

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[16] 2010 Census of population and housing population summary report

[17] www.zambia-econmist.com

[18] As at 2004, only 37 percent of the rural population had access to water in Zambia (Zambia Vision 2030:25).

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Muyembe is a small dam with water storage capacity of 60,000cubic meter and serving approximately 800 households in the area. The rationale behind the development of this dam is to provide water for small-scale irrigation, fishing, drinking and other economic activities among the communities. According to the 2011 Water Act, an individual can only apply for water rights when wanting to abstract the volume of more than 500 cubic metres of water per month, and less than that is considered domestic. The dam was funded and constructed by the Government of Zambia through the Department of Water Affairs in MMEWD at an approximate cost of 107,692 Euros. It should be emphasised that during and after its implementation no people were displaced hence no compensations were made by the government.

3.5 "Participation" in Muyembe: Different Assumptions and Expectations

This section discusses how the Zambia government perceive projects and community participation in community water management while trying to establish the levels and spaces of participation from community members using a project cycle management as tool of analysis. Furthermore, give an insight of what participation meant to communities of Muyembe with regard to gender relations and who participate most and what level and nature of participation. It brings out reasons why people want/not to participate in CRM while trying to look at spaces available for them to manoeuvre in the community structures.

From the government point of view, "participation" entails letting the communities of Muyembe to take an active role in initiating projects with the help of experts identifying the best location of the project. When the project is initiated by the community and its demand driven, ownership is created in community members themselves especially when there is effective communication and genuine involvement in decision making, they show total commitment (Manikutty 1997:135) either by contributing up fronts such as stones or sand towards the implementation of the facility. Government officials interviewed indicates that involving the people affected by the project brings about an understanding and appreciation that comes with such an initiative. People tend to own the project as theirs with commitment especially if there is no alternative and the resource is scarce, as observed Hoko & Hertile, (2006:704) when resource is valued and appreciated.

Participation is one way of encouraging communities to be part of the decision making process and make choices which they will have no one to blame but accountable at the end of the day. Officials state that encouraging community participation is a government policy on decentralisation through devolving authority to the people by bringing decision making process down to the grass roots. Findings reveal that formation of dam committee/water user association to represent the entire Muyembe communities in the project area and also to act as a bridge between the government and community of Muyembe were used as a strategy to enhance dialogue between the two parties.

On the part of traditional leaders and community members of Muyembe, participation is allowing them to make informed decisions that

affect their welfare and that government should appreciate as such. In addition, participation implies involving the community members through open dialogue in the all project life cycle without discrimination.

In trying to use project management cycle as tool to locate community participation in Muyembe as indicated in figure 2.6.1 as an ideal situation to engage communities, the study observes that communities were engaged in some key stages of the project management cycle but omitted in others like design stage. When people of Muyembe were asked who made a decision to construct a dam in Muyembe, 66% of the respondents indicate that it's the community. "We asked the government to construct a dam for us and we contributed sand and stones as a commitment from our part" (Sub Chief Muyembe). This implies that people at this stage had a voice in the initiation of the project. But were not involved at the design stage as evidenced from the feedback they gave with regard to the failure of the dam. 85% of the respondents indicate that government officials did not consult them at design stage to get information about the history of the area and its climatic dynamics. When users are consulted throughout the project cycle, participation is enhanced and feedback on the project is guaranteed that could be taken into account during the design and actual implementation of the project (Paul 1987:3).

The members of the communities of Muyembe also express lack of appreciation of local knowledge from part of the government that could be attributed to the failure of the dam. Local knowledge is very critical at the stage of problem identification and analysis. As observed by Mwanyoka (2006:1), "the experience and knowledge of the local people though lacked scientific explanation are a strong weapon in solving local problems". The experience of the local people will be very useful in the planning and designing of a project because they are better placed to tell a good story about the area and changes that have happened since time in memorial. For instance, research participants mentioned that the area had sixteen periodic streams that flow in the Lubulafita stream which is the main source of water for Muyembe weir and as such during rainy season pressure is created which the walls of the weir fails to contain hence the perpetual breaking down of the dam wall.

The formation of dam committees as a bridge between the community and Government as strategy to ensure participation, lacked legal backing until in April, 2012 when the Water Resources management Act was enacted.[19] This act is yet to be fully operationalized once the institutions under the new Water Resource Authority are established and commences the execution of their mandates. Personal interviews conducted with officials from MMEWD reveals that the ministry is still on working on modalities to operationalize the 2011 WRMA. Thus, the absence of legal backing is observed to affect the participation in CRM in Muyembe with regard to motivation and authority of leaders to execute duties and be accountable to the people.

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[19]http://www.parliament.gov.zm/index.php?option=com_docman&task=cat_view&gid=153&Itemid=113&limit=5&limitstart=0&order=name&dir=DESC- Accessed on 20/10/13

Further, community structures and gender perceptions within Muyembe did encourage inequalities in terms of participating in CRM. The government of Zambia in its policy documents, strategies and water act support at all levels gender participation without discrimination. The policy clearly stipulates involvement of women and children in design, execution and management of water projects (GRZ, Water Policy 2010:30). It advocates for gender mainstreaming articulated with the full involvement of women in the development, implementation and management of water resources. In addition, encourages gender balance by defining key roles played by women, men and children and use of appropriate and gender sensitive technologies.

The respondents administered with questionnaire, 75 percent say that only men are involved and 25 percent say that people of both genders are involved in dam management as shown in chart 3.5.1 below.

Although the 2010 National Water Policy and 2011 Water Act support gender integration, both frameworks have not mentioned at any page the percentage representation of women and men in key roles but just a mere mention of encouraging gender without even indicating how that will be executed. This is likely to affect participation within communities, because there is need to address the issues of ethnicities, classes and beliefs with all its inequalities it comes with if the issues are to be addressed. People have different ways of perceiving things especially from a gender perspective and this was observed from the communities interviewed in Muyembe.

Chart 3.5.1

Perception on Gender and Community Participation in Dam Management

25% Men/Women

75% Men
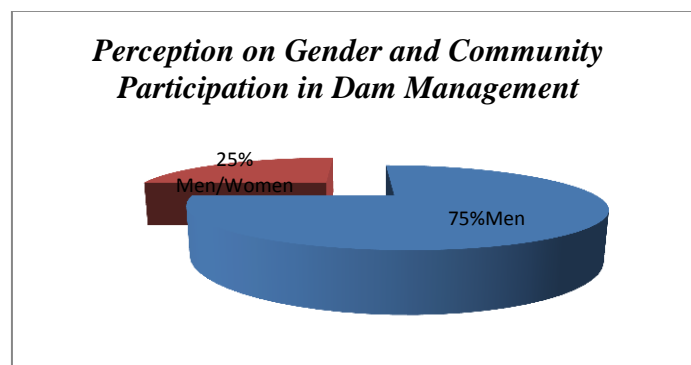
The people of Muyembe had their own view on gender participation in the development and management of the dam. According to the responses provided, men were better placed to provide labour during rehabilitation, enforcing rules through monitoring the dam. It is observed from the dam committee representation that key positions are held by men. These are cultural beliefs that are held in most rural societies that men should always take the lead. This has also been compounded by the application of dual legal system of both statutory and customary which are subject of contradiction when it comes to ownership, inheritance and devolution (GRZ, Gender Policy 2000:45). It is men who own properties in most rural communities hence having chance to participate. The

researcher also observes that men are in charge of maintenance of the dam.

Women inspect the dam during the day and prepare food for men during dam rehabilitation. When asked why they were inspecting the dam, the respondents replied that "We have fish in this dam, so if we don't patrol and observe some irresponsible and selfish people within the community can put poison to suffocate the fish. Therefore, we try by all means so at least during harvest time all the communities can benefit". (FGD II Muyembe 2). Women are also responsible for collecting sand and stones especially when a new project is under implementation. Respondents further assumes that work involved in the rehabilitation of the dam is too hard for women hence they should be restricted to light activities such as vegetation control, community mobilisation and attending of meetings. "We only participate in lighter jobs because men are stronger than us after all the Bible says men should be providers and that they are obliged to do that for us"(FGD I Muyembe1). After all during rehabilitation, the "DWA only request for men to participate in the implementation because they believe we have nothing to offer. Therefore, we only wait for our chance to contribute when the men deem fit for us to participate" (FGD III Kambobe village). It is observed from the responses that inasmuch as government policy and legal frameworks advocates for gender participation, implementation of such is yet to be realised. Therefore, it is evident that within communities' spaces for participations are not widely open for everybody to contribute (Mayoux 1995:245) women who are supposed to be key stakeholders in the management and utilisation of the resources are excluded in executing certain functions and these have a bearing on the success and management of the CPRs.

In area of resource contribution, CRM stakeholders may contribute in various ways ranging from labour, cash, knowledge and material support and that as well can be termed as participation. Therefore, it is of essence to identify who participates, in what form and for what? Leach et al (1997)'s environmental entitlements opined how local people consistently pursuit for power and control over natural resources with a view of achieving other objectives (Fabricius 2004:22). Yet, from the government perspective it could be merely trying to provide a service to its people and also in an effort to meet goal seven of the Millennium development goals. When communities of Muyembe were asked who funded the construction of the dam, it was mentioned that the government financed the project. "As a people benefiting from the dam, we provided labour, stones and sand at the inception of the project to show how committed we are towards the project. We cannot contribute money because we are poor people. Besides, it is the responsibility of the government to look after us as its citizens" At the moment we are no longer contributing anything during the rehabilitation of the dam apart from being employed for piece work by the same government"(Headman, Muyembe I).

The researcher notes that the people of Muyembe are easily mobilised and work together especially that they depend on the weir as a reliable source of water. Generally, the majority of the respondents (69%) indicate that they are benefiting from the dam. It is observed that as long as there is an economic benefit people are ready to participate. Government officials indicate that experience had been that people were voluntarily willing to participate when an incentive was attached to any project. But, if only a section was benefiting participation and corporation becomes a challenge. Of course this is common knowledge that people will always endeavour to involve themselves in activities were benefits exceed the total cost of participation. Otherwise, the CRM project is subject to fail (MS-Zambia, 2005:16).

3.6 Concluding Remarks

In concluding this chapter, it is true that government has in place instruments which can facilitate community participation. However, policy alone cannot achieve much, therefore, there is need to continuously sensitize people especially on gender participation as evidenced by the responses from Muyembe. The local community structures should as well be strengthened to enhance community organisation stability. It should also be noted that participation of communities will only flourish when benefits are forthcoming. Otherwise, when no benefits are forthcoming participation continues to be a challenge.

Chapter 4 Questioning the Notion of Sustainability in Muyembe

4.1 Introduction

This chapter discusses how the government and communities of Muyembe define a project as sustainable and modalities that promote sustainability of water facilities. It also looks at who is accountable in an event that the dam is not operational, who takes responsibility and what hierarchies are there for communities to express their views.

4.2 Sustainability

4.2.1 Sustainability: Government's Perspective

Sustainability of a project from a government perspective is one that is able to contribute to the overall social economic development of the country. Such a project should be able to address the needs of the beneficiaries. Sustainability with regard to water implies that the usage of the resource should be able to yield the benefits to the present generation without comprising the future (WRM Act No. 21 of 2011. 279). In the case of Muyembe, the dam should be able to provide adequate and reliable supply of water. In addition, the dam should be maintained and taken care of for it to last. The government regarded community demand driven projects to last as a result of community participation that is presumed to enhance ownership of the project hence leading to sustainability (Personal interview).

The case under study indicates that awareness campaigns – sensitization and training in basic operation and maintenance is a strategy used to ensure project sustained. Officials interviewed demonstrate that government believed that community participation in projects lead to sustainability. One of the modalities put in place is to ensure that communities are sensitized before and after the project. Generally, community members responses reveals that the experience had been that government only sensitized them before a project is implemented and select a few for training after the project is developed. This subsequently, makes it difficult for transfer of skills in an event that those that were trained relocate somewhere. As observed by Musonda (2007:58), community management of CPR has a potential to succeed when adequate capacity to operate and maintain facilities are built in the beneficiaries. Most projects fail to realise the intended objectives because the focus has been on development of infrastructure without due attention to would be managers of such project (Franks 1999:12). Human capacity should be developed simultaneously with project implementation.

But even when the training is conducted within the limited community structures that have a bearing on the sustainability of CRM (Harvey & Reeds, 2007:365-6) who are the people selected to participate? As noted by Meynen, and Doornbos (2004:227), "institutions are intrinsically permeated and shaped by notions and ideologies of gender, class and other social divisions in societies". Hence, local leadership institutions within communities in the field of water resources management are generally male dominated and lacked gender sensitivity thus perpetuating social exclusion (ibid). For instance, representation in

such trainings if the idea is to focus at household level, the head of the house who happen to be the man is likely to represent the family excluding the women folk who are the most users of water in most cases. Studies, conducted in Kenya and Nepal revealed that women and the minority groups were negatively affected (Kellert et al., 2000:709). In this regard sustainability of a project is likely to be compromised because the interest of some stakeholders may be in conflict with others.

4.2.2 Sustainability: Community Perspective

The communities have their own notion of sustainability that is dependent on what they see. According to the data collected from the field, the people of Muyembe define sustainability of the dam when the facility is able to provide adequate and reliable supply of water throughout the year for their economic and household use. The communities of Muyembe also look at sustainability in the context of the dam providing economic incentives to the local people. For instance, if the facility is able to promote income generating activities such as fishing and mostly importantly agriculture considering the fact the majority people in the area were farmers as indicated in chart below.

Chart 4.2.1
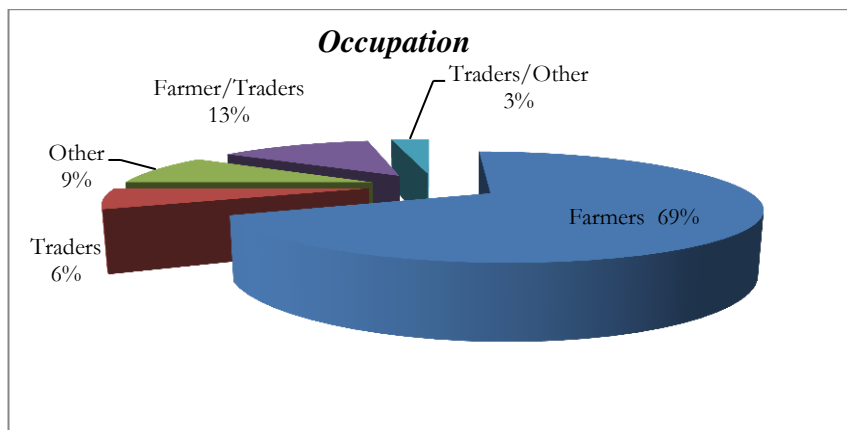
The members felt that when the levels of poverty at household level were reducing then the dam would be said to be sustainable. That is to say, the local people should be able to find employment as results of the spill over effects that the dam is supposed to be providing and from that context the dam is sustainable. " The dam is sustainable when my people are able to have water at their door step through connection of pipes and the dam being able to provide enough fish to the communities that benefit from the dam" (Sub Chief Muyembe).

Others indicate that the facility should be able to stand a taste of time, implying that the dam should last for a reasonable period of time before major attention may be required to be done. The above notions of respondents are in line with the arguments of Fabricious (2004:32) that incentives that accrue to the project motivates beneficiaries not only to take an active role in participating in such projects but also ensuring that they are managed in a most efficient and sustainable manner. There is

always a realisation that as a people we depend on this resource and our livelihood is centred on it hence commitment and diligence utilisation of it.

Community participation is very critical in sustainability of a project. Scholars have argued that it enhances a sense of ownership on part of the beneficiaries because they are committed to the project thus contributing to its effectiveness (Manikutty 1997:115). The interviews conducted with government officials indicates that people of Muyembe were easily mobilized especially from the inception of the project but developed an attitude towards participation due to the unstable state of the dam. "People are frustrated because they could not realize the perceived benefits from the dam hence the lost hope. However, there was still hope especially with the enactment of the 2011 WRMA which promotes the creation of the Water Users Association(WUA) would at least give a legal backing and confidence to leaders of water committees. Officials mentioned that the water Act clearly defines actor's roles and jurisdictions in the management of water resources" *(Personal interview).*

However, 66 percent of respondents from three communities of Muyembe indicate that the dam is not sustainable and could not last because government lacked proper equipment to implement the project. Government also lacks human resource capacity that is experienced and that disregarding of local advice contributes to the failure of the project.

The study also show that late commencement of the project leading into rainy season made DWA engineers to implement the project hurriedly. For instance, as of 4th September, 2013, the MMWD had only received 27% of the budget.[20] This is indicative of the fact that government is entirely responsible for providing funds for the implementation of the project. This ultimately has consequences on participation and sustainability of the CRM projects. As noted by Hoko & Hertile (2006:704), ownership and maintenance of projects is improved when the final consumer is made to contribute towards the development of such a project.

Other studies carried out by researchers reveal that when beneficiaries are not contributing anything towards a project especially for operations and maintenance leaders tend to abandon their assigned responsibilities. This may be attributed to the absence of legal status and authority of leaders of water users associations (Harvey & Reed, 2007:370) to make defaulting members accountable for their actions. The desire for community participation is to share the cost of running the facility with the people it serves. Hence, local people benefiting from the project should provide upfront in terms of labour, money or materials. This is likely to create a sense of ownership subsequently guaranteeing sustainability of the project. But weak institutional structure in Muyembe, which does not allow and provide for communities to contribute funds for operations and maintenance makes it difficult for beneficiaries to influence the direction of the project. As noted by Paul (1987: V), community participation is all about beneficiaries having the authority to decide how the project should be executed and not only receiving the project benefits.

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[20] MofNP Quarterly Budget Execution Report 2013:1

Related to the above claim is also inadequate disbursement of funds allocated towards the rehabilitation of the dam. The respondents felt that shoddy works were carried out because resources were not enough to construct a strong structure thus leading to the perpetual breakdown of the dam. "They don't use enough cement in the construction and when we tell them that the dam wall should reach the hill they refuse" (Kambobe Village Headman).

When the members were asked the simplest way the communities can sustain Muyembe dam, the members indicates that it had to start with the implementers of the project, in this case the Government through the DWA. "The government should construct a strong dam using proper equipment and then handover to the community after stabilization period has elapsed. Otherwise it is not our job to manage facilities that are subject of failure from part of the government. We elect leaders to represent and work for us in such areas" (Respondent 26). Research participants recommended that the government should contract an expert contractor in the field of dam construction instead of relying on the DWA engineers.

Chart 4.2.1b
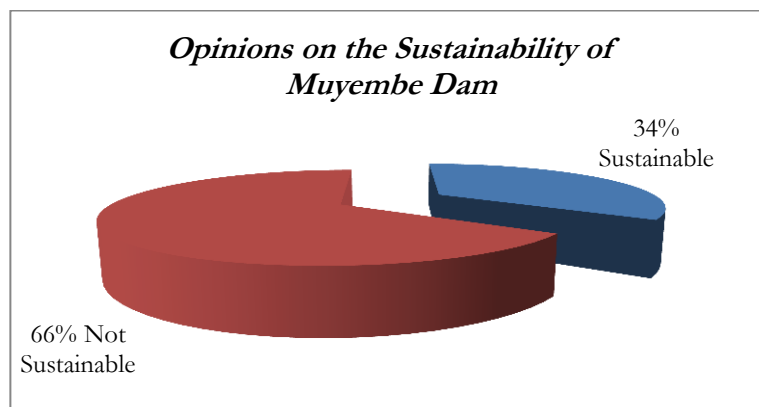
The communities should then be re-trained in basic operation and maintenance (O&M) and usher in a new dam committee that will be facilitating all the management activities to do with the dam. Some members are of a view that the current executive is inactive and has lived its usefulness hence the need to usher a new and vibrant committee with new ideas.

4.3 Accountability

When the respondents were asked who was accountable in an event that the dam was not operational, Officials from MMEWD say that the government is accountable and that the people of Muyembe through their committee are responsible for maintaining the dam. "It is our role to rehabilitate the dam even though it is managed by the committee because the cost involved is too high for them to afford"(personal interviews). On the part of the community 90% of research participants indicate that government is accountable. This actually has a bearing on the ownership of the project by the community especially that no one is accountable to anybody but look up to the government. Although, it is community

managed dam the state still has a big role in the overall operations hence the issue of devolution of authority seemed to be restricted to some degree thus, instilling that sense in the communities that its government managed.

"We have a committee even if it is not active which reports anything to do with the dam to the DWA in order for them to make an assessment and implement" (Headmen, Kambobe and Muyembe Village II*).

"It is not our duty to contribute since we provided upfront such as stones and sand when the dam was about to commence its construction in 2004, our mandate now ends at maintaining the dam and ensuring that people are using it in a sustainable way and the rest that is beyond that is the preserve of the government" (Headmen, Kambobe).

One of the committee members said that "we are not employed we just sacrifice our time and money to communicate to government officials. The role of the communities that benefit from Muyembe is to manage the dam, we manage it through enforcing our local rules that each member should adhere to".

Several studies conducted by researchers indicate that the sustainability of community managed projects depends on an enabling institutional environment which demands total commitment on part of the government to its citizenry and accountability of committee members to the ruled, to avoid "supply driven demand development"(Mansuri & Rao 2004:1). But this kind of accountability especially from the local leadership as argued by Ribot 2004, is likely to encourage elite capture and corruption of the project and the benefits that comes with it(Sultana 2009:349). In addition, devolving of authority by the state would be difficult to be accomplished because of power struggle and limited capacity that exist at grassroots level to run such systems effectively (Uhlendahl et al., 2011:847). Local structures should be strong in such a way that it is able to provide for continuous dialogue between the leadership and the communities they represent.

4.4 Mechanism in place to ensure sustainability

For the success and stability of any project strategies have to be put in place to increase its life time. When no proper attention is given to a project just like a car which is not serviced, its performance is likely to be affected hence the need to ensure it is well managed. The respondents from Muyembe indicate that, one of the strategies is the establishment of the dam committee. The committee is responsible for ensuring that rules guiding the management and use of the common resource are adhered to by the beneficiaries. It is cardinal to ensure that the beneficiaries have some autonomy to make and enforce their own rules though arriving at effective ones is difficult (Ostrom et al., 1999:279-280). When beneficiaries are mandated with the responsibility to govern the resource they should be able to draw up rules which are user friendly and with defining rights and duties (Meinzen-Dick & Knox, 1999:18, Ostrom et al., 1999:279). Absence of effective rule use is likely to encourage free riders, its either beneficiaries abuse the resource or don't contribute anything

towards maintaining and improving the CPRs itself (Ostrom et al, 1999:279).

It is important to have rules guiding the utilisation of this facility because failure to enforce rules people will mismanage the facility (Headman Kambobe Village). "We stop people from cultivating near the banks of the dam in to avoid siltation of the dam reservoir" (FGD Kambobe Village). The committee also ensures urgent reporting to government in an event that attention is needed to the common resource. *We report to the office of the provincial water engineer cases which are beyond us and may need the attention of the experts.*

On the part of the government, officials interviewed indicate that the government trains people in the project area in basic operations and maintenance so that management of the dam is well handled by the community themselves. This is one of the mechanism government has put in place to ensure sustenance of the facility. On the contrary, when you look at the project management cycle, training as already alluded to in earlier paragraphs is only conducted at the end of the project and people interviewed from Muyembe said only once at the completion of dam construction. *"This makes it difficult for continuity in terms of institutional memory thus affecting participation in the overall management of the resource" (Sub Chief Muyembe).* But again, sustainability of community managed resource is also determined on the capacity of community water representatives. The leadership in community management should be self-motivated so that they can as well inspire beneficiaries. Therefore, building capacity of beneficiaries will enhance their interest and competence in the management of the project (Paul 1987:3). In addition, a system for organising the community should be in place that could facilitate adequate capacity building in local communities in line with how to maintain water infrastructures (Musonda, 2009:45).

Therefore, training beneficiaries beyond the project life and monitoring and evaluation of such projects can enhance its sustainability (Katz & Sara, 1998:704). In an ideal situation, the capacity building should be a throughout process considering the fact that some people may relocate[21].

4.5. Expression of views by communities of Muyembe

In a democratic dispensation, freedom of expression is key to ensuring that people air their views on matters affecting them. When people are given a platform to express their feelings about a certain idea of concern in CRM, they join a problem solving team, implying that they are participating in matters affecting them. There is a general assumption that when local communities take control and responsibility over common

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[21] "Migration can deprive an area of knowledgeable individuals; bring in those who are unfamiliar with the resource base. These tends not only imply potential loss of widespread technical knowhow, but also mean that collective action institutions have weakened or disappeared" (Meinzen-Dick and Knox 1999:22*).*

resource it is likely that the project will succeed (Ms-Zambia newsletter 2005:15). The case of Muyembe shows that the communities of Muyembe have many channels through which they can air their grievances, for instance, through the local leadership (Sub Chief Muyembe, Councillor), the district commissioner, Provincial Water Engineer or Member of Parliament. But the question to be asked is their views received with open hands? What is the organisation structure of the community?

Although these structures of communication look open for people to participate in issues affecting, generally, 80% of the respondents asked mentions that their views were not taken on board hence they opted to keep quiet. This is actually one of the dangers of decentralisation and participation in CRM in that sometimes beneficiaries may have different agendas from that of the implementing agency (Ms-Zambia newsletter 2005:15) *They don't listen to us (our leaders and government officials) and even if we complain nothing is done (respondent 22).*

The power cube by John Gaventa 2003 *(Figure 4.1)* can be used to illustrate this scenario and how spaces for entry in participation in Muyembe are applied. Gaventa (2003) define 'space' to imply various avenues through which the process of decision making are located and the frame within which power operates (Luttrell et al. 2009:11). Following the responses and various avenues available to the people of Muyembe to air their views, it is evident that leaders and policy makers have created 'invited' spaces for people to bring out issues of concern and in the process offer the weak in community an opportunity to develop their agendas (Luttrell et al. 2009:11-12). But to the contrary, the real spaces are not created since opinions shared by these communities through all spaces offered bear no influence as observed by the respondent 22 in above paragraph. Power to decide still remains in the hands of the leaders and policy makers. It is common as observed by Uhlendahl et al (2011:860), that government support participation which is mainly window dressing but the formalised decisions are still done behind curtains. This actually has bearing on participation for it creates mistrust among stakeholders thus affecting the sustainability of the project since people in such cases opt to remain quiet instead of contributing.

Figure 4.1　　**Power Cube**
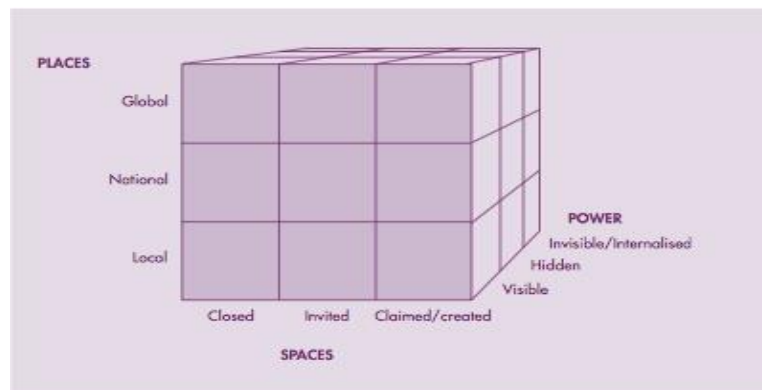
Adapted: Gaventa 2003

It is cardinal to balance people's participation and interest in order to curb the potentiality of conflicts that may exist between the government's project agenda and communities concerning their involvement. In this regard, ensuring that communities' views are agreed upon and objectives of the project clearly spelt out is crucial.

4.6 Concluding remarks

In concluding this chapter it is evident that sustainability of CRM of project is determined by factors ranging from capacity building of beneficiaries, creating space for all people to contribute and ensuring that institutions within the community are strengthened for good organisation and coordination of activities. Conflict in legal and customary laws result in some groups fail to participate consequently compromising the sustainability of the project considering that their inputs cannot be taken on board.

Chapter 5 Conclusion

This paper analyses the nature of community participation in CRM of Muyembe dam and the link to sustainability. A review of the literature on community-based water management projects in different parts of the world (especially Africa) shows the existence of strong a correlation between genuine participation and sustainability of projects. "Genuine" here means that implementing agency do attempt to legitimise and make their preconceived proposal on "community participation" gain acceptance by the people at the time of implementation (Botes& Rensbury 2000:43). However, the link between participation and sustainability of a project is contingent in rules of entry, social norms, accountability of leaders to people, clear legal frameworks and flexibility of institutional structures. Therefore, the concept of "participation" needs to address the mechanisms of accountability and their influences on the views and perceptions of members of the community of users, which can in turn affect understandings of "sustainability" by different actors.

In the case of the Muyembe dam inadequate space of participation and ultimately unsustainable project management may be attributed to non-accountability of WUA to the people they serve. This is due to the fact that, the 1948 Water Act did not provide for the recognition of WUA and guidelines on roles they are supposed to play. Generally, respondents were saying government was accountable to them. Therefore, the committee in place is just a mere reflection of having filled in structures in place and yet not functional. This in itself hinders the sustainability of the project since no one is accountable to anybody. The sense of ownership is compromised because the accountability of community leaders is just reduced to reporting cases of damage without further action. Consequently, leaders are not motivated to perform because they lack consensus. Hence, the inactive of the committee could be attributed to absence of legal authority of the committee. Further, the absence of the legal backing of the committee makes it difficult to ensure that beneficiaries are accountable to the committee in an event that they fail to comply with the rules set in the management of the dam. The current water Act has however defined these rules and mandates of WUA that may address some of these hiccups once fully operational.

Similarly, the dual legal system, statutory and customary laws, is at times in conflict especially customary laws which may be in contradiction with the provisions of statutory law (GRZ, Gender Policy 2000:45). This status of affairs causes overlaps, contradictions and inconsistencies in trying to implement policies and different activities. Therefore, from that perspective, it is difficult for community participation to flourish in Muyembe as it is dependent on the two contradicting and competing legal systems. Although the current WRMA 2011 recognises the overlaps in the two laws the state of affairs remains the same until the act is operationalized.

The community structures in Muyembe are restrictive and close spaces for participation for certain classes of people. These are members who may contribute to the sustainability of the project. But the inflexibility of community structures perpetuates some marginalised groups still

having difficulties for entry in the circles of participation and as such denied the community the needed knowledge to efficiently and effectively manage the project. This has been compounded by dual legal system as already mentioned earlier coupled with certain beliefs held by the communities themselves. As observed by Van-Koppen et al. (2008:xiv) the parallel water management paradigm and formalised legal approaches may have entrenched inequalities in access to water, such as gender inequalities which relocate women to a secondary legal status, while formal may require gender equity.

There is limited dialogue between professionals and community members of Muyembe. The people of Muyembe have been living in that area for centuries so they appreciate the ecological nature which professional might to not have. Therefore, getting information from communities through round table dialogue is likely to help address the missing link. However, when you check in the project management it is evident that dialogue is not a continuous process as in the case of Muyembe. For example, the government has a responsibility to rehabilitate Muyembe dam once its damage, but at this stage no consultations are done with communities regard to who to recruit. As complained by one respondent that the government recruit the same people and leave out others might also offer reasons to the failure of the facility. For example, a case of South African urban development scene, show how different initiatives were sabotaged by a certain group who felt they were insufficiently allocated roles to play (Botes & Van Rensbury 2000:48). The situation of sabotaging initiatives in South Africa could similarly be occurring in Muyembe, especially among those who have not been given chance to be employed by government during rehabilitation. This ultimately could contribute to the instability state of the dam and the overall participation of the communities who are benefiting from the dam.

Traditional held beliefs in Muyembe in terms of gender perception in community participation has a bearing on the attitude of people towards participation and sustainability. The communities have assigned gender roles which exclude women and children from participating. This kind of exclusion in decision making process has also been reproduced in the community project life cycle where only the majority men are participating. Similarly, the belief system of the local people benefiting from the project is likely to inhibit or enhance community participation (Njoh 2002:246). Two respondents said not until homage is given to ancestor the project will never be successful, implying that people will not participate until such beliefs held are addressed. Paying homage to the ancestors will encourage people to participate thus bringing about sustainability of the project.

The perception that water is a free gift from God and therefore should be provided for free of charge(Phiri:2000:8) and the notion of socialism the first republic adopted in 1964 which encouraged provision of services free seem to be stuck in the minds of the people of Muyembe. These beliefs and perception have an effect on how Muyembe is managed by the community.

An alternative source of water from the stream though it was down played is another point which might have led to people not paying much

attention to participation. As indicated by one respondent indicated that even if the dam breaks down they will still draw water from the stream despite it drying up in summer. These are some of the small things which have a bearing on people to participate in Muyembe though little attention is given to them. Having an alternative source of water even if it is not reliable has a potential to discourage some people from participating in the management of water.

Capacity of the community to manage the dam is lacking in Muyembe although mentioned government officials indicated that people had skills. For a project to be successful, people managing it should have capacity and some basic understanding in operation and maintenance in that regard. Considering the situation in Muyembe, people lacked capacity even to attend to precautionary measures which if they had been equipped would have served the structure from extensive damage. If the communities are capacity built, there is possibility that they will be able to attend to the dam in some cases. But the government has opted to keep everything upon its shoulders. Thus, people cannot fully use their initiatives to address the daunting challenges being faced. In this case people are still considering the dam to be in the hands of the government. It is important that capacity building is done before and during the operation of the project.

With regard to financial and technical aspect, of course a lot of funds are required to rehabilitate the weir but that is beside the point. People are not paying anything and still wait for the government to do it for them. It is a known fact that rehabilitating a dam requires colossal sums of money which communities cannot afford to raise but contributing something will help them realise the importance of taking serious care and build sense of ownership such that each community member will be accountable to ensure that no extra cost is paid by taking preventive measures. Of course, the government in the meantime should continue until such a time the beneficiaries and its committee are able to manage on their own. As noted by Dolesak and Ostrom (2003:20), when the devolution of power CPR culminate into the withdraw of government support which was previously provided for certain works, chances are high that the community may find it difficult to manage the resources successfully because of cost implication.

Finally, the decline in participation is seen to be as a result of past experiences of involvement which did not yield post results. To encourage people to participate in CRM, the total benefits should be able to at least exceed or equal the costs of participating. Not until benefits are seen to be realised people's attitude towards CRM participation would be in vain. Therefore, when policy makers are thinking of devolving power to the community level, there is need to think of supplementary laws (By laws) that will specifically apply in each particular situation of CRM and within a specified context and boundary. This is because universal laws cannot be applicable to every condition and environment. Therefore, local supplementary by laws should be supported.

From a future-oriented perspective, the dam is very vital for the communities of Muyembe and that a lasting solution to the problem should be found. Therefore, there is need to critically harmonise the dual

legal system of the statutory and customs laws in CRM. This can be addressed through introduction of by-laws as already mention to avoid inconsistence and contradiction in property rights ownership. These by-laws will address context specific challenges CRM encountered in different communities with regard to creating space for participation and accountability by stakeholders

In addition, having policies, legal framework and strategies talking about community participation is not enough to guarantee sustainability of a water facility. It would only be feasible if during planning and budgeting process a component for community mobilisation, sensitization and training were attached independent of the project. As already observed that budget for rehabilitation lacked that aspect. Further, during the identification, implementation and monitoring of the project, policy makers should always endeavour to look beyond the project cycle but critically analyse keys stakeholders. With that in mind excluding of certain groups of people would be reduced because they would be the prime focus the project affects.

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Appendix I

Community Participation in Water Infrastructure Projects: The Case of Muyembe Dam in Zambia

I am a student at the international institute of Social Studies (ISS) of the Erasmus University of Rotterdam undertaking a research as a partial fulfilment of MA programme in Governance, Policy and Political Economy (GPPE). My area of study is focusing on participation and sustainability of community water managed projects with a case of Muyembe Dam in Kawambwa. You are one of the respondents selected to participate in this survey and the information provided will be treated in strict confidence.

Background

Section A: General Information

Answer by ticking in the box provided.

1. Gender

☐ Male   ☐ Female

2. Marital status

☐ Married   ☐ Widow/ Widower   ☐ Divorced   ☐ Separated ☐
Never Married

3. Age

☐ 18 - 29 ☐ 30 - 39 ☐ 40 – 49 ☐ 49 – 59 ☐ Above 60

4. Level of Education

☐ Never been to School ☐ Primary ☐ Secondary ☐ Tertiary

Section B. Social & Economic
Tick in the box provided-once or more where appropriate

5. What is your occupation?

☐ Farmer   ☐ Trader-Business ☐ Other

6. Do you benefit from the dam? ☐ Yes   ☐ No

7. How do you benefit from the dam?

☐ Water for irrigation   ☐ washing   ☐ cleaning   ☐ cooking ☐
Others specify…

49

8. Who made the decision to construct a dam? ☐ Community Government ☐

9. Did the community contribute towards the construction of the dam? ☐ Yes No ☐

10. If not who funded the construction…………………………………………………….

Section C – Dam Management

11. Do you participate in Community Water Management Yes ☐ No ☐ (Tick appropriate answer?)

12. If yes to question 11, how?

☐ Attending meeting ☐ O & M ☐ Decisions ☐ Making ☐ Cash Contribution   Other

13. Existence of dam committee

☐ Yes   ☐ No

14. If yes, what is the role of the committee in the dam?
………………………………………………………………………
………………………………………………………………………

15. Who is involved most in the management of the dam?

☐ Men   ☐ Women

16. What management mechanisms your community has put in place to manage the dam?
……………………………………………………………………..
………………………………………………………………………

17. When the dam is not functioning, what makes it not functional?
……………………………………………………………………..
………………………………………………………………………

18. What efforts do you put in in ensuring that the dam is repaired?
……………………………………………………………………..
………………………………………………………………………

19. Do you receive any support to enable you manage the dam? If so what type of support?
……………………………………………………………………..
……………………………………………………………………...

20. In an event that the dam has broken down, what other optional water sources do you have in Muyembe?
……………………………………………………………………...
……………………………………………………………………...

21. What influence do these options mentioned above have on community participation in Muyembe?

21. How do you define the dam as sustainable?

…………………………………………………………………………………….

…………………………………………………………………………………

22. Basing on the above definition, Is Muyembe dam sustainable?
Yes ☐   No ☐

23. If No, what in your opinion could be the reason?

…………………………………………………………………………………..

………………………………………………………………………………….

24. What in your opinion is the simplest way your community can sustain Muyembe dam?

…………………………………………………………………………………….

…………………………………………………………………………………

25. How does the community ensure accountability in the management of the dam?

………………………………………………………………………………

………………………………………………………………………………

26. Has there been a disagreement or difference of opinion on how the dam should be   managed?   Yes ☐   No ☐

27. If the answer to question 26 is yes, what is the channel of expressing your views?

………………………………………………………………………………

………………………………………………………………………………

………………………………………………………………………………

28. What actions do people of Muyembe take when their views are not taken into account?

…………………………………………………………………………………..

………………………………………………………………………………

29. What recommendations can you give?

………………………………………………………………………………

………………………………………………………………………………

………………………………………………………………………………

Thank you taking your time to answer this questionnaire

Appendix II

Interview schedule for Government Officials

1. Name of Department…………………………………………..
2. Location…………………………………………………………..
3. Position of the respondent…………………………………..
4. As an organization, how do you link community participation to sustainability of dams?
5. What do you think are essential elements that facilitate sustainability of Muyembe dam?
6. What factors do you think determine community participation in community water management?
7. What modalities have you put in place to ensure community participation?
8. Has the water policy adequately addressed the issue of community participation?
9. Are the roles and responsibilities of players in community water management clarified in the legal and institutional frameworks?
10. What maintenance mechanism have you put in place in Muyembe dam?
11. Does the community have the capacity in Operation and maintenance?
12. What in your opinion makes the dam breaks down?
13. Who is accountable in an event that the dam is not functional
14. To your knowledge what is the official meaning of the term "community participation in water management"
15. Based on your experience, what lessons do you think can be drawn to realize the idea of the right to water

Appendix III

Focus Group Discussion- Women

1. Community
   Name……………………………………………………………
2. District……………………………………………………….
3. Knowledge of dam existence
4. Who made a decision to construct the dam?
5. What is it used for
6. Do you have access to it?
7. Is there a dam committee in place?
8. Who actively participate in the management of the dam?
9. At what stage do you participate in the project
10. In an event that the dam is damaged who is accountable?
11. How can you define sustainability of a dam?
12. Following the definition given, is Muyembe dam sustainable?
13. What measures can be put in place to ensure sustainability of the dam?
14. Do you make any contribution towards the management of dam?