

**FACTORS INFLUENCING EFFECTIVE GOVERNANCE OF
COMMUNITY MANAGED WATER PROJECTS: A CASE OF
KIENI EAST CONSTITUENCY**

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DECLARATION

This research report is my original work and has not been submitted for an award of a degree in any university.

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DEDICATION

This project is dedicated to my family especially my wife, Safia and the children; for all their lost weekends, encouragement and support during the period of my study.

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ABBREVIATIONS

| | | |
|--------|---|--------------------------------------|
| CAAC | - | Catchment Area Advisory Committees |
| CBOs | - | Community Based Organizations |
| CWP | - | Community Water Project |
| GoK | - | Government of Kenya |
| MWI | - | Ministry of Water and Irrigation |
| NGOs | - | Non-governmental organizations |
| UN | - | United Nations |
| WAB | - | Water Appeals Board |
| WASREB | - | Water Services Regulatory Board |
| WRMA | - | Water Resources Management Authority |
| WRUA | - | Water Resource Users Associations |
| WSBs | - | Water Services Boards |
| WSTF | - | Water Services Trust Fund |
| WSPs | - | Water Services Providers |

ABSTRACT

The provision of water services in Kenya has been a mandate of the government institution since the independence. Despite the various changes in the policies and structure of water service provision, the latest being the Water act of 2002, service delivery and sustainability has always been a major obstacle in achieving the various goals that have been set by the government. The emergence of community initiatives in setting up water projects has been geared towards addressing the gap that was left by the government in the delivery of services. Despite their role in service delivery and considering the serious attention that been given to the water sector reforms, very little has been done on governance of community managed water projects. The purpose of the study was to establish factors influencing effective governance of community managed water projects in Kenya by undertaking a case of Kieni East constituency in Nyeri County. The researcher adopted a cross-sectional study design. In this study, the research question of interest was, “What factors influencing good governance of community managed water projects in Kenya?” The target population for this study was the community water projects in Kieni East constituency. The researcher used purposive sampling procedure to acquire a sample size of 30 which according to Mugenda and Mugenda (2003) for such a study $n=30$. This study collected both primary and secondary data relating to the factors influencing good governance of community management water projects in Kenya. Collected data was edited, coded and analyzed using Statistical Package for Social Sciences (SPSS). Content analysis was used to analyze qualitative data, while descriptive statistics was used to analyze quantitative data. Primary data was interpreted using descriptive statistics such as mean, frequency and percentages as a measure of central tendency and standard deviation as a measure of dispersion of the respondents’ views. The study showed that good governance of community water project is hinged on transparency and accountability that is used to manage these institutions. The study also found legal recognition of the community water project, their management structures that conform to their need, commercialization and reporting back to the community enhances the efficiency and sustainability of the community water projects. External support was found to be important during the start-up of the project but insignificant once the project has been up and running.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

The water Act of 2002 is considered one of the most important milestones in the management of water resources and service in the country. The reforms which were part of a process that involved stakeholders and non-governmental organization in their formulation heralded an era that aimed at separating management and development of water resources and the provision of water services. The act which provided the institutional legal framework gave rise to new water management institutions to govern water and sanitation in the country.

The reforms were informed by the realization that the country was no longer able to manage the available water resources and water services to the citizens. The sector performance in Kenya had deteriorated especially in the urban sector due to poor management of utilities, mismanagement of funds, skyrocketing demand of water and limited funding to the sector.

According to Ministry of Water and Irrigation report of 2007, by the 1980s and 1990s the Kenyan water sector could no longer adequately cope with the ever-increasing challenges. Deficiencies in the management of water and sanitation installations led to the growing discontent of water users in both rural and urban areas. Increasing pollution of water sources, climate change and catchment degradation led to major droughts, followed by floods, with increasing devastation and frequency. In addition, the legal and institutional framework did not provide transparency, accountability or limit the abuse of power. Nor did it allow the participation of stakeholders such as users and the private sector. This led to dwindling

confidence of development partners who reduced their support for investments and capacity building in the sector.

The Constitution of Kenya, 2010 has fundamentally altered this defective governance framework of the country through various far reaching reforms. The most critical of these reforms are: the introduction of a new normative framework/value system-achieved through the preamble, Article 10 and chapter six of the constitution; devolution of power through the creation of two levels of government in chapter eleven; constraining of executive power through the introduction of various checks on the powers of executive, particularly the president and the introduction of a modern expansive bill of rights. Of these far reaching reforms devolution is likely to have the most profound impact on governance (Mwenda, 2010).

According to Dulo (2010) the establishment of new Water Sector institutions, crafting of new policies and strategies as guided by Water Act 2002 led to impressive performance. The sector is now upbeat and geared to deliver even better results in the future. Notwithstanding these major gains recorded within a relatively short time span, the new Kenya Constitution 2010 poses one of the greatest challenges to the sector as it calls for some far-reaching changes among the institutional players. All the Water Sector institutions will be required to readjust themselves so as to embrace the basic tenets of the new Constitution as the Bills of Rights, Land and Environment, The Republic, Devolution and Public Finance.

Mehta et al. (2007) noted that reform of the rural water supply sector in Kenya is expected to increase the autonomy of rural water service providers. The role played by water service providers engaged in developing, managing and operating schemes is separated from the regulatory role of the Water Services Regulatory Board, and oversight functions by seven autonomous regional water services boards.

The rural water supply sector in Kenya has significant user investment. Rural communities often mobilize substantial contributions toward the investment costs of rural water supply schemes. Technical assistance is often provided by NGOs, the water service boards' district water offices, and in a few cases, the private sector. It is estimated that community projects account for around 3,000 water supply schemes in Kenya. These often are operated as small enterprises and it is clearly the intention of the reform that this should become the norm, a sector served by small water enterprises with sufficient management skill to function autonomously within the regulatory framework (Mehta et al., 2007).

1.2 Statement of the problem

The overall research problem addressed in this study is that despite the serious attention that been given to the water sector reforms, very little has been done to analyze factors that influence effective governance of community managed water projects.

The provision of water services in Kenya has been a mandate of the government institution since the independence. Despite the various changes in the policies and structure of water service provision, the latest being the Water act of 2002, service delivery and sustainability has always been a major obstacle in achieving the various goals that have been set by the government. The emergence of community initiatives in setting up water projects has been geared towards addressing the gap that was left by the government in the delivery of services. According to Mumma (2005), 2.5 million get their water from community managed water projects. These systems have always relied on a few enterprising individuals for their initiation and community organization. The funding for the construction of the infrastructure mostly been undertaken through labour from members while material resources have been

through Harambees, support from the NGOs, faith based organization and of late through the CDF.

These projects have had mixed success and failures in their mandate of service delivery. They have had challenges in the separation of the governance and the day to day management of the project, faced concerns in accountability, transparency and sustainability and beset by wrangles and politics interference. Despite the major reforms the country has undertaken, little has been done to support and study these community managed water projects in Kenya. In most of the studies, the focus has been on the water companies and the water institutions. For instance, Jepkemoi (2008) undertook an analysis of economic performance of water companies in Kenya. She reported on numerous challenges including poor service delivery that led to losses in some companies. Kimani (2008) looked into strategy development among water services boards in Kenya and recommended that the water services boards should involve more stakeholders in the water sector when developing such strategy in order to ensure that its implementation is successful. Ndegwa (2010) undertook a survey of corporate governance practices in the water sector in Kenya and reported that the practice is still in its infancy

The nature of the formulation of the water project has allowed community members to formulate their own rules and regulation that will allow the management and governance of the project. In most of the time, the committees did the day to day running of the water project. The lack of skills especially financial and technical on the part of the management committee has had an impact on performance of the projects, accountability of revenues, and transparency of procurement processes especially for repairs and maintenance.

The community water projects have always provided a platform to showcase leadership qualities for potential aspiring individuals. This coupled with resources flow from CDF and

other donors has resulted in the incumbent politicians to keep a very a close eyes on the management and individuals in the committees. A lot of wrangles in the committee have roots in the interference of politicians in these community initiatives. This can be witnessed by the many committees that claim to be legitimate members of the water project. In Siakago, reports from the media (The standard 28th September 2013) indicate the implementation of a water project had been halted due to incitement and wrangles of the area leaders. In one of the project in Narosura, Narok south, the writer witnessed about five committee claiming legitimacy.

The importance of community water projects cannot be over emphasised. According to the UN water report (2008), many regions of Kenya the availability of water in both quantity and quality is being severely affected by climate variability and climate change. In many regions, too, demand is increasing as a result of population growth and other demographic changes (in particular urbanization) and agricultural and industrial expansion following changes in consumption and production patterns. As a result some regions are now in a perpetual state of demand outstripping supply and in many more regions that is the case at critical times of the year or in years of low water availability (UN-Water, 2008). This had led to community organizing themselves with support from NGOs and faith based organization to start initiatives that provide water and sanitation services within their neighbourhoods.

Mumma (2005) notes the need to support the community water projects and the rules governing water services providers should take account of the need to foster and promote community self-help schemes, as systems for meeting the water supply needs of the rural poor who are unlikely to receive attention from private operators, or financially hard pressed public systems. This project therefore aimed at establishing factors influencing effective governance of community managed water projects.

1.3 Purpose of the study

The purpose of the study was to establish factors influencing effective governance of community managed water projects in Kenya by undertaking a case study of Kieni East constituency.

1.4 Objectives of the study

The study's specific objectives include:

- i. To establish how registration of the entity running the community water project influences good governance.
- ii. To establish how robust management structures within the community water project influences good governance.
- iii. To establish how attention to the commercial operations within the community water project influences good governance.
- iv. To establish how regular reporting within the community water project influences good governance.
- v. To establish how whether technical support provided from a range of external sources for the community water project influences good governance.

1.5 Research questions

The study aimed at answering the following research questions:

- i. Does registration of the entity running the community water project influence good governance?
- ii. Do robust management structures within the community water project influence good governance?
- iii. Does attention to the commercial operations within the community water project influence good governance?
- iv. Does regular reporting within the community water project influence good governance?
- v. Does technical support provided from a range of external sources for the community water project influence good governance?

1.6 Significance of the study

The study is of importance to the Government of Kenya, through the Ministry of Water and Irrigation and the county government in deepening their understanding on community water projects and the need to develop policies that will support community initiated water project and their structures to enable provide efficient services.

The study would also greatly help NGOs and other development partners in their understanding of community water projects and their engagement in provision of assistance and support. The study will also be beneficial to community groups that are active in the

Kenyan water sector to access and use the study's findings in the set-up and running of community managed water projects. This study added to the existing body of knowledge on the governance of community water project, an area that has not received much attention. Researchers and scholars may use the study's findings in further research on efficient management of community water projects.

1.7 Limitations of the study

The major limitations of this study relate to time a constraint which is not sufficient to allow the researcher to undertake a comprehensive countrywide study; limited financial resources and geographic distance between the community water projects in Kenya.

1.8 Delimitations of the study

In order to address the research question and objectives, the researcher undertook a case study of community managed water projects in Mount Kenya South region of Kenya with regard to factors influencing good governance of community managed water projects.

1.9 Definition of terms

Community Water project – This an organization formed by communities to initiate the development and running of water system for the benefit of their members. The projects are self-initiated with resources provided by communities and other donors.

County Government – is a form of public administration which in a majority of contexts, exists as the lowest tier of administration within a given state or country. The

term is used to contrast with offices at state level, which are referred to as the central government, national government, or (where appropriate) federal government and also to supranational government which deals with governing institutions between states.

Devolution – is a process of transfer of political, administrative and fiscal management powers between central government and lower levels of government, primarily operating at city and region levels.

Governance – refers to group decision-making that addresses shared problems and describes the processes and institutions that guide and restrain the collective activities taken by an organization and its members. In addition, governance is more about the process through which a decision is made, rather than the substance of the decision itself, hence it is not necessarily about making an organization stronger; rather, governance describes an organization's rules and procedures that the organization uses to fulfil its goals.

Trans-boundary water – trans-boundary waters apply where any of the following types of bodies of water (or their drainage basins) transcend international boundaries. (Oceans, large marine ecosystems, enclosed or semi-enclosed regional seas and estuaries, rivers, lakes, groundwater systems (aquifers), and wetlands.

Water governance – range of political, social, economic and administrative systems that are in place to regulate the development and management of water resources and provision of water services at different levels

Water Resource Management – is the activity of planning, developing, distributing and managing the optimum use of water resources.

1.10 Summary

This chapter gives a brief introduction of the study by looking into background of the water sector and the reforms that have taken place in the country. It looks at the studies undertaken in the waters sector and their relevance in the study. The chapter explores the objectives of this study while stating the research questions which this study hopes draw solutions. The chapter also states the problem at hand and goes ahead to give the scope of the study while at the same time giving the significance of this study. The chapter further presents the assumptions of the study and definition of significant terms.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature on governance, the Kenyan water sector institutions and their roles in the water sector, local community water systems, community managed water projects (an empirical review) and develops a conceptual framework on factors influencing good governance of community managed water projects.

2.2 Governance

To 'govern' derives from the Greek word meaning 'to steer'. Modern definitions variously refer to 'rule with authority', 'direct and control', and to 'regulate'. Ways of governing can range from the despotic mode, to constitutional, technocratic or other variants. However, 'governance' in the modern sense tends to be associated with a system constituted by devolved bodies assuming 'bottom up' a range of responsibilities while subject to 'top down' regulations, scrutiny and oversight – a network in place of a single central controlling agent but one that is accountable to its members (Storey et al., 2008).

Storey et al. (2008) further state that there is a general sense in current usage that governance is a form of legitimate authority which is not despotic, sovereign or arbitrary. Indeed, it has increasingly been used in the public and voluntary sectors to refer to the oversight of executive power; it sets the expectations for executive agents, it sets parameters, it grants decision rights and conditional authority, and it monitors performance against targets.

‘Governance’ is constituted by a number of processes which are designed to meet a number of objectives and which are usually organised into a number of structural arrangements.

Contemporary theories on governance make a fundamental distinction between governance and government. While both concepts involve intentional behaviour on the part of an organization and its members to achieve certain goals, governance is a broader concept than government (Carrington, DeBuse and Lee, 2008).

At the most general level, governance refers to theories and issues of social coordination and the nature of all patterns of rule. More specifically, governance refers to various new theories and practices of governing and the dilemmas to which they give rise. These new theories, practices, and dilemmas place less emphasis than did their predecessors on hierarchy and the state, and more on markets and networks. The new theories, practices, and dilemmas of governance are combined in concrete activity. The theories inspire people to act in ways that help give rise to new practices and dilemmas. The practices create dilemmas and encourage attempts to comprehend them in theoretical terms. The dilemmas require new theoretical reflection and practical activity if they are to be adequately addressed (Bevir, 2010).

According to Bevir (2010) vast literature has arisen on governance and the changing nature of the state and other forms of rule. The literature includes contributions from the leading theories in the contemporary social sciences, including rational choice, institutionalism, and interpretive theory. The literature describes, explains, and evaluates trends in public sector reform, including marketization, public management, and multijurisdictional coordination. The literature explores the effect of these trends on diverse practices of rule, including local government, the changing state, and global governance. The literature raises practical issues about how practitioners can manage these changing patterns of rule: What types of leadership are appropriate? How can policymakers manage networks? How can we act collectively to

preserve common goods? Finally, the literature raises ethical and political questions about good democratic governance.

Carrington et al. (2008) indicate that good governance strategies refer to measures that are designed to improve the overall governance of an organization by increasing its effectiveness and legitimacy. Good governance is not about increasing the power of these organizations; rather, good governance advocates establishing a solid foundation for rules and procedures, which will help organizations fulfil their individual goals. Whatever role an organization envisions for itself, that organization can increase its effectiveness by implementing good governance strategies. Just as there are many different theories on how to understand the governance arrangements of, there are many different approaches to good governance, which include: democratic strategies, results-based strategies, order-derived strategies, systemic strategies, and procedural strategies. Different variations of good governance strategies are not mutually exclusive; most of them may be adopted by organizations at the same time. Further, the ability of a particular strategy to improve the governance of an organization will depend entirely on the factual situation surrounding a given organization.

2.3 Water Governance

According to the Global Water Partnership (GWP), water governance refers to the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society. Water governance is concerned with those political, social and economic organizations and institutions (and their relationships), which are important for water development and management.

According to UN Habitat report, effective laws/regulations and regulatory frameworks are in place, but actual water supply and sanitation provision and management in the water sector in general remain very poor. Most references to decision-making processes on governance, and in particular water governance, tend to explain away existing problems as the by-products of institutional arrangements and the participation of stakeholders. However, in reality, underlying political processes are also involved that are as much about economic and social power as they are about institutional problems.

According to World Bank report, (World Bank report, Stalgren 2006), it is estimated that 20-40% of finances in the Water Sector are being lost through corruption and dishonest practices. The forms of corruption which are rampant in the water sector of Kenya are misappropriation of resources and funds, doctoring of bills and customers data, extortion of money from consumers, illegal connections, preferential treatment, theft and misuse of property and equipment's, financing ghost projects, political manipulations, favouritism, nepotism, none transparent procurement of goods and services (poor quality but high costs) and bribery for illegal services(Good governance in the Kenyan water sector, BMZ, 2012).

Recent research has confirmed that the way in which societies govern their water resources has a profound impact on settlements, livelihoods and environmental sustainability. Many current water crises are in fact largely problems of governance rather than the application of appropriate technical and management criteria in harnessing water sources and water quality, and yet governance has traditionally received less attention than technical issues. Governance structures that exclude the poor clearly contribute to the fact that more than a billion people in the world lack safe drinking water and nearly three billion have no access to adequate sanitation (UN Habitat).

Given the complexities of water use within society, developing, allocating and managing it equitably and efficiently and ensuring environmental sustainability requires that the disparate voices are heard and respected in decisions over common waters and use of scarce financial and human resources. Water governance is concerned with the functions, balances and structures internal to the water sector (internal governance). It includes the framing of social agreements on property rights and the structure to administer and enforce them known as the law. Influences also come from civil society and from the “current” government and these are considered parts of the external governance of water, which will be discussed later. Although issues can arise for water governance from the economic and technical spheres, in most countries the driving force is politics. Effective governance of water resources and water service delivery will require the combined commitment of government and various groups in civil society, particularly at local/community levels, as well as the private sector (Rogers & Hall, 2003).

Poor governance is represented by systems characterized by lack of certain conditions necessary for good governance (Rogers & Hall, 2003). These conditions include inclusiveness, accountability, participation, transparency, predictability and responsiveness. Rogers & Hall (2003) have indicated that poor water governance leads to increased political and social risk, institutional failure and rigidity among other things. According to the duo, poor water governance also leads to increased incidences of poverty as malfunctioning systems cause misallocation of scarce resources. It is within this realization that reforms in the water sector have been recommended and are being effected the world over (K’Akumu 2007).

2.4 Kenyan water sector institutions and their roles in the water sector governance

In 2002 the water sector reforms in Kenya culminated in the passing of the Water Act; the Act, which was gazetted in October 2002, gained legislative force in 2003. The Water Act introduced new water management institutions to govern water and sanitation (water sector institutions). While water resources remained vested in the state, the water reforms saw the introduction of the commercialisation of water resources as part of the decentralisation process and the participation of stakeholders in the management of national water resources. The separation of policy and regulatory responsibilities and the devolution of responsibilities for water resources management and water services provision to local level functions has been the principal mechanism for improving accountability and transparency in the water and sanitation sector (Water Act, 2002).

The Water Act of 2002 gave legal force to the National Water Policy objectives. The key provisions of the Act allowed for the necessary reforms for management of water resources, strengthening the institutional framework of the water sector while eliminating the role of government in direct service provision and providing mechanisms for financing water resources and services. The Ministry of Water and Irrigation (MWI) was vested with the responsibility for overall sector oversight including policy formulation, coordination and resource mobilisation. Under the Water Act, 2002, water and sewerage services are separated from water resources management to minimize conflicts of interests between allocation and service provision. The Act also established standards for the provision of water and sewerage services. There are three tiers of institutions for water and sewerage: Water Services Regulatory Authority; Water Services Boards; and Water Services Providers.

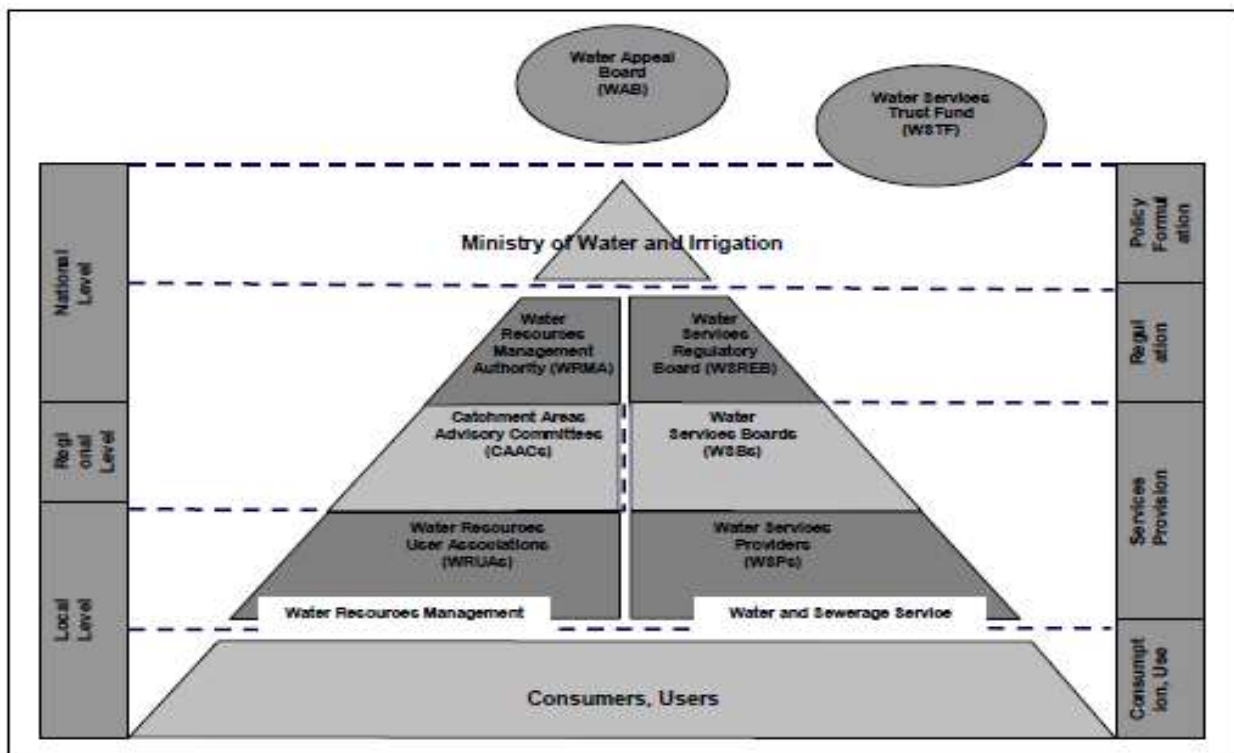
Under Water Resources Management, new institutions have been established to give greater attention to the management of water resources. The objective is to improve the management and protection of water resources for equitable allocation for the various uses including domestic, industry, agriculture, energy, livestock and others. The institutional framework for water resources consists of: The Water Resources Management Authority; Catchment Area Advisory Committees; Water Resources Users Associations; and Water Services Trust Fund. The established water sector institutions include: Water Services Regulatory Board (WASREB) to set standards and regulate the sub-sector; Water Appeal Board (WAB) to adjudicate on disputes; Seven Water Services Boards (WSBs) to be responsible for the efficient and economical provision of water services; Water Services Trust Fund (WSTF) to finance pro-poor investments Water Services Providers (WSPs) to be agents in the provision of water and sewerage services; Water Resources Management Authority (WRMA) to manage and protect Kenya's resources; Catchment Area Advisory Committees (CAAC) support the WRMAs at the regional Level; and Water Resource Users Associations (WRUA) established as a medium for cooperative management of water resources and conflict resolution at sub catchment level. The outlined Kenyan water sector institutions and their roles in the water sector are illustrated in Figure 2.1. (Water Act, 2002).

2.3.1 Ministry of Water and Irrigation (MWI)

The Ministry of Water and Irrigation (MWI) is the ministry in charge of the water sector and is therefore responsible for the overall management of water resources and general government policy on the water sector in the country. The Ministry was established in January 2003 with the goal of conserving, managing and protecting water resources for socio-economic development. Under the water sector reforms, the Ministry transferred management

of and operation of water services to the Water Services Regulatory Board (WASREB) from mid 2005. The Director of water was the person in charge of water services in the ministry but these powers and duties were transferred to the regional water service boards that are now licensed by the WASREB to provide water services in different regions across the country. The ministry and other state corporations that were involved in water supply such as the National Water Conservation and Pipeline Corporation also transferred their water supply facilities to these regional water service boards. NGOs, CBOs and any other community self help groups are required to enter into agreements with the respective regional water service boards with regard to use of water supply facilities owned by the community organisations (Water Act, 2002).

Figure 2.1: The institutional set up of water sector reforms under Water Act 2002



Source: *Ministry of Water and Irrigation (2011)*

2.3.2 Water Resources Management Authority (WRMA)

The Water Resources Management Authority (WRMA) was formed as one of the water sector bodies under the water sector reforms; the body was established under the Water Act 2002. The overall mandate of WRMA is to protect and conserve water resources. Water resources for purposes of the Water Act include lakes, ponds, swamps, streams, marshes, watercourses or anybody of flowing or standing water both below and above the ground. The functions of the WRMA include planning, management, protection and conservation of water resources. The WRMA is also authorized to receive and determine applications for water permits and monitor their compliance. There are currently six established regional offices in Kenya these are Athi catchment area in Machakos, Tana catchment area in Embu, Rift Valley catchment area in Nakuru, Lake Victoria South catchment area in Kisumu, Lake Victoria North catchment area in Kakamega and Ewaso Nyiro North catchment area in Nanyuki. The WRMA responsibilities extend to the management of water catchments. The Water Act establishes the Catchment Area Advisory Committees whose principal functions are to advise the WRMA on water resources conservation, use and apportionment at the catchment levels (Water Act, 2002).

2.3.3 Water Services Regulatory Board (WASREB)

The Water Services Regulatory Board is established under the Water Act and was operationalized in March 2003. The functions of the WASREB include the issuance of licences to Water Service Boards and to approve service provision agreements concluded between Water Service Boards and Water Service Providers. The Water Service Providers are the agencies that directly provide water and sanitation services to consumers. The

WASREB is responsible for ensuring that water services and supply are efficient and meet expectations of consumers through regulation and monitoring of Water Service Boards and Water Service Providers. To standardize service provision, the Board has the responsibility of developing among others, tariff guidelines (Water Act, 2002).

2.3.4 Water services Trust Fund (WSTF)

The Government of Kenya, through the Ministry of Water and Irrigation established the Water Services Trust Fund (WSTF) under the Water Act 2002 to channel funding for its long-term objectives of developing water and sanitation services in areas of Kenya without adequate water. The main objective of the WSTF is to assist in financing capital costs of providing services to communities without adequate water and sanitation services. The WSTF focuses on reaching those areas that are underserved or not served at all such as informal settlements, the priority being given to poor and disadvantaged groups. The projects are funded through direct allocation by the Government and donations and grants that may be received from bilateral and multilateral development partners, organisations and individuals. The WSTF works closely with Water Service Boards to ensure that funds available reach poor, vulnerable and marginalised groups in the implementation of projects (Water Act, 2002).

2.3.5 Water Appeals Board

The Water Appeals Board is established under the Water Act to adjudicate disputes within the water sector. The Appeals Board is made up of three persons, one appointed by the President on advice of the Chief Justice and two others appointed by the Minister for Water

and Irrigation. The Water Appeals Board can hear and determine appeals arising from the decision of the Minister of Water and Irrigation, the WASREB and the Water Resources Management Authority (WRMA) with respect to the issuance of permits or licenses under the Water Act. A matter is supposed to be lodged with the appeals board within 30 days of communication of the decision to the affected person unless there is a different regulation that provides for a different length of period or other condition. The decision of the Appeals Board is final; however where a matter touches on a point of law, an appeal from the WAB may be filed before the High Court of Kenya (Water Act, 2002).

2.3.6 Water Services Boards (WSB)

Water Service Boards (WSBs) are constituted under the Water Act 2002. The WSBs are responsible for the provision of water and sewerage services within their areas of coverage and are licensed by the WASREB. The WSBs are also responsible for contracting Water Services Providers (WSPs) for the provision of water services. WSB and WSP enter into service provision agreements that include but not limited to the supply area, development, rehabilitation and maintenance of water and sewerage facilities of the WSBs. The WSBs are responsible for the review of the water services tariffs proposals from WSP before submission to WASREB for consideration (Water Act, 2002).

2.3.7 Water Service Providers

The functions of Water Service Providers (WSPs) include the direct provision of water and sanitation services and the development, rehabilitation and maintenance of water and sewerage facilities of the WSB. The Water Service Providers act as agents of the Water

Service Boards. Under the Water Act, Water Service Providers are defined to include companies, NGOs, other persons or bodies. The Interpretation and General Provisions Act, Chapter 2 of the Laws of Kenya defines “person” as a legal or natural person. The implications are that community groups to qualify as Water Service Providers must be formally registered under the Societies Act, Chapter 108 of the Laws of Kenya to gain legal personality (Water Act, 2002).

2.4 Local community water systems

Community run small-scale water systems play a critical role in supplying consumers in the peri-urban and rural areas of Kenya. The importance of these providers has been recognized in recent reforms of the sector, which provide for a legal and regulatory framework for community based organizations to engage in water service provision outside major towns and cities. However, these providers often experience problems that hinder their ability to provide reliable services to consumers and expand their coverage. Their most notable problems are limited management capacity, low operating revenues and lack of access to finance (Water and Sanitation Program, 2011).

Mumma (2005) indicated that by the year 2000, less than half the rural population had access to potable water and, even in urban areas, only two thirds of the population had access to potable and reliable water supplies. Typically the people without access to reliable water services often represent the poorest and most marginalized of Kenyan people. This paper is premised on the belief that these are the people least likely to take advantage of, and benefit from, the legal framework in the Water Act 2002 for the provision of water services, and the ones likely to suffer most from inadequate management of water resources.

Njonjo (1997) (as cited in Mumma, 2005) indicates that the ability of rural communities to provide water services through community groups is demonstrated by the fact that presently no less than 2.3 million people get water services from systems operated by self-help (community) groups – traditionally known as “water users associations.” These systems are diverse in nature and capacity, ranging from fairly sophisticated systems with well structured tariffs to simple gravity schemes operated without any formal processes.

The history of community provision of water services in Kenya is a long one. The majority of the systems are small in scale, serving perhaps one constituency and serving between 500 and 1000 families. Even in the areas served the systems rarely serve everyone, tending to be restricted to those who qualify as members according to criteria stipulated for the system by its initiators. The phrase “self-help” – which is often used to describe these systems – is an apt one. Many arose out of the initiative of a small group of visionary and energetic community members who sought to redress the lack of water services in their local community whether for domestic water consumption strictly speaking or for irrigation or both. Typically, these individuals or group of individuals would have approached some or other donor organization, church group or even community members living abroad, and successfully negotiated funding support (Mumma, 2005).

Another important element of the community’s contribution to the project has often taken the form of a donation of land for the physical facilities, such as the storage tanks and reservoirs, the treatment facilities and even the standpipes. Donations of land are often a contribution by one of the initiators of the project, as a gesture of support for the project. It is not unusual to find that the title to the land – if one exists - remains in the name of the person donating the land, even though for all practical purposes the person ceases to be the owner of the land in question, and the land is perceived as being communal in ownership. The common reason for

the failure to transfer the land formally to the community often relates to the lack of a corporate entity into whose name to transfer the land, the cumbersome nature of the paperwork and the expense involved in effecting the transfer, as well as the belief by the community members and the land owner that the transfer is as good as complete with the verbal donation of the land by its owner (Mumma, 2005).

2.5 Community managed water projects (empirical review)

There have been a great number of changes in Kenya's Water Supply and Sanitation (WSS) sector with the completion of the Water Act of 2002 (enacted in 2003). The Act provides for the decentralisation of powers from the national to the regional and local level; the separation of water resources management from WSS as well as the institutional separation of policy, regulatory, asset holding and operational functions. Prior to the reforms, a number of organisations had been involved in water service provision including the Ministry of Water and Irrigation (MWI), the National Water Conservation and Pipeline Corporation (NWCP), various local councils as well as an estimated 3000 Community Based Organisations (GTZ, 2006).

According to the Water Services Trust Fund (2010) with the ongoing water sector reform, there is great emphasis on strengthening the pro-poor focus of the sector. This is hinged on the Water Act 2002 which provides for the formalisation of water and sanitation services, and offers an improved framework for decentralisation that strengthens, regulates and monitors the implementation of the human rights to water and sanitation, now enshrined in the Bill of Rights of the new constitution. Some of the institutions that have been established by the sector reform are the Water Services Regulatory Board (WASREB), charged with monitoring

and regulating water services provision through setting and enforcing national standards; the Water Services Trust Fund (WSTF), a pro-poor funding basket to improve access to water and sanitation services in underserved areas; and the Water Services Providers (WSPs), commercialised utilities providing water services, that are owned by the public and required by law to register with WASREB.

In Kenya, several community based water projects have been undertaken in various parts of the country. For instance, Water Services Trust Fund (2010) indicated that the Mathare-Kosovo pilot project was identified as a pilot area for the partnership approach (community, water utility, WSTF, NGO) since the water supply was controlled by a cartel, the settlement was informal but partially planned, and the residents had expressed a strong desire for formal water supply. Many factors together have contributed to the success of the partnership project. In summary they are: Alignment to the water sector reforms, which resulted in a shift of focus to formal service provision as well as the establishment of a (poverty) basket, the WSTF; The utility's pro-poor focus, a comprehensive strategy to reach its low income customers with sustainable services, showing these areas can contribute to an increase in revenue collection; The close partnership between the water service provider, an NGO, the residents of the project area, and financing institutions; Community engagement, whereby residents were empowered and took the lead in project planning, implementation and operation; Appropriate roles and responsibilities of stakeholders, aligned to the sector policies and reflecting the strengths and expertise of the various partners; Improved information, through an intensive mapping and enumeration exercise of the population of Mathare-Kosovo, to develop an objective picture of the challenges faced.

Water and Sanitation for the Urban Poor (2011) steered the provision of urban water and sanitation services in Naivasha and Kisumu counties of Kenya and reported that the provision

of water and sanitation services for low-income urban communities necessarily requires a number of different actors to cooperate: in the case of water supply these actors typically include one or more network operators, an asset owner, and a regulator. In such situations a clearly defined institutional architecture is essential, requiring a series of agreements that define each actor's role, responsibilities and incentives, and how each actor will work with the others.

Info Resources Focus (2003) reported on the hydrographic basin of the Ewaso Ng'iro River at the foot of Mont Kenya, which provides water resources for intensive farming upstream, and for small farmers and nomadic herdsman downstream. Competition is very high in this semi-arid zone, and the stronger competitor wins. Some large-scale farmers irrigate excessively, and the poorer populations downstream are deprived of the water they need to survive. Water sources are diverted clandestinely at night; conflicts grow more and more frequent. An integrated water resources management project has been set up to cope with this situation. It consists of different parts: drawing up data on the basin's true potential (measurement of the water flow and the quantities used, computer models); meetings and discussion workshops between government representatives and the different user groups in order to pinpoint problems and needs, and search for joint solutions; training in appropriate techniques (drip irrigation, planting of crops that combat erosion and can be used as fodder, mini-dams); institutional support (training and institutional consolidation, awareness-raising campaigns for the local population). The creation of "Water User Associations" is the key element in this integrated approach; they offer all players a platform for debate and action with a view to cooperative management solution.

Church World Service East Africa (2011) reported on several community based water projects and noted that in each community, several partners (including but not limited to

CBO's, NGO's, donors and local authorities) work with and train Community Water Management committees (CWMC) members in: General water resource management and natural (environmental) resource awareness and management; Health and hygiene community education methods; Maintenance and management of the specific water system(s) being installed; Community ownership models for self-financing water system repair and maintenance costs; The creation of equitable policies and user agreements between competing users.

2.6 Conceptual framework

According to Mehta et al. (2007) aspects of the government of Kenya reform program include: A focus on the sustainability of community rural water supplies, where sustainability suggests attention to long-term financing, carrying out of regular and effective operations and maintenance, and capacity for strategic planning; A focus on partnership, suggesting that many skills are needed to support rural water supplies focused on communities, and it is unlikely that communities can manage their systems in the long run without access to reliable external support; A focus on using limited public funds to leverage maximum increases in access; that is, a focus on efficiency and output.

However, Mehta et al. (2007) found out that community water schemes were faced with the following challenges: Technical challenges including poor planning, inappropriate infrastructure and high electricity bills; Social challenges including interference by non-members, community conflict, lack of community awareness programs, inadequate skills in wider poverty reduction, and interference and sabotage by men in women-led schemes; Financial and management challenges including illegal water connections, member defaults,

and general financial difficulties; Environmental challenges including reduced flow of water from natural causes and human activities at source.

Consequently, Mehta et al. (2007) presented the following key features within the community water schemes: Registration of the entity running the scheme; Robust management structures, with a regular process of decision making, including annual general meetings for all members; Attention to the commercial operations, including formal billing and collection; Regular reporting, including annual financial audits; Technical support provided from a range of external sources, including the district water office and private firms and individuals, but usually with the district water office advising the committee on how to access and make use of technical support.

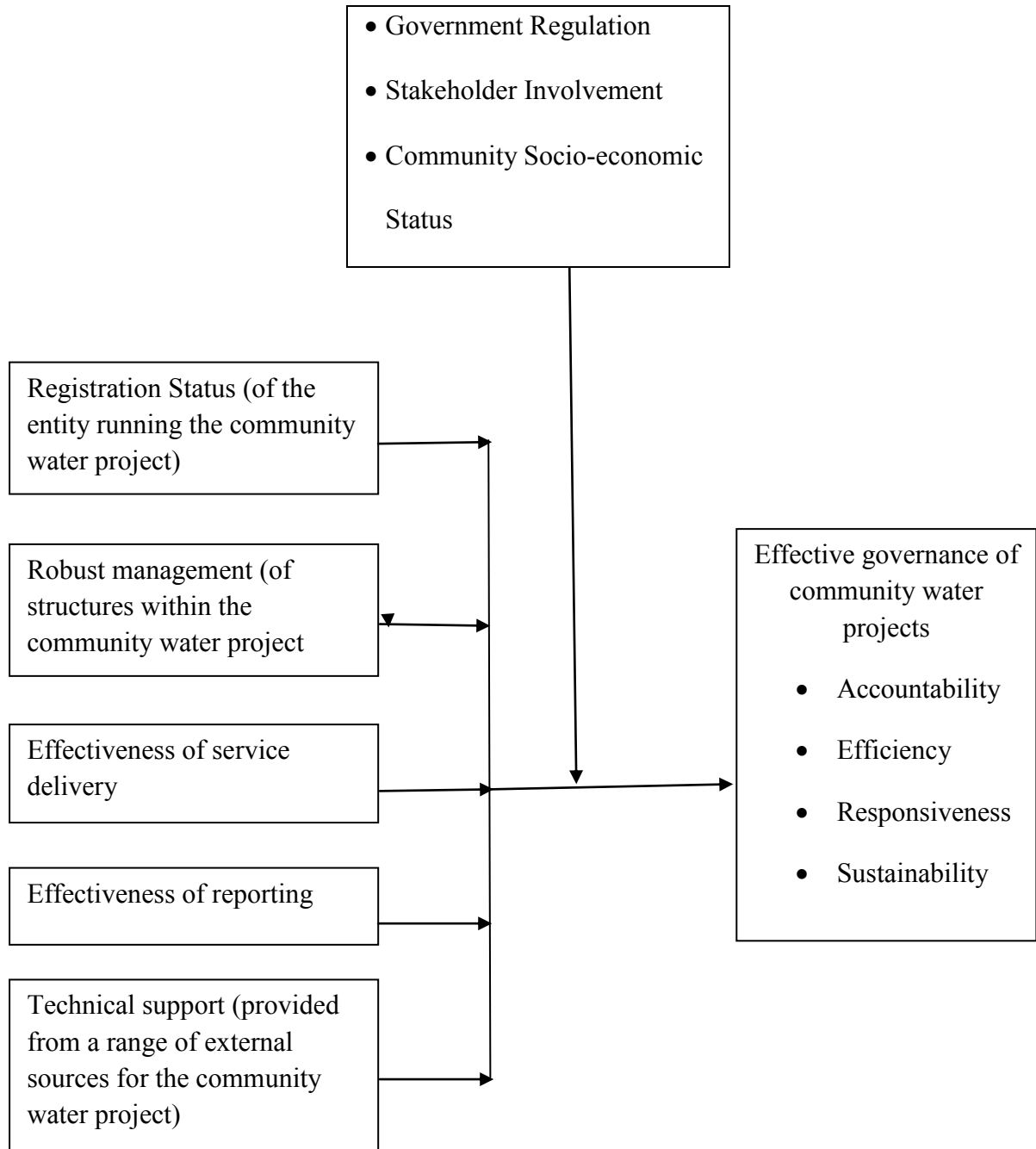
A conceptual framework is a brief explanation of the relationships between the variables identified for study in the statement of the problem, objectives and research questions. In this research, the conceptual framework is the concise description of the phenomenon under study accompanied by visual depiction of the variables under study (Mugenda, 2008). In order to establish factors influencing good governance of community managed water projects, the researcher developed a conceptual framework that adopts the key features within the community water schemes as presented by Mehta et al. (2007) as the independent variables. Intervening variables include government regulation, stakeholder involvement and the community's socio-economic status. The dependent variable was effective governance of community water projects measured through the following indicators: accountability; efficiency; responsiveness; and sustainability. The conceptual framework is illustrated below

Figure 2.2: Conceptual framework

Independent variables

Intervening Variables

Dependent variable



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research methodology by indicating the research design, target population, data collection method/techniques and data analysis to be utilized in establishing the factors influencing good governance of community managed water projects in Kenya.

3.2 Research design

The researcher adopted a descriptive research design by undertaking a case of community managed water projects in Kieni East constituency of Nyeri County. According to Chandran (2004) descriptive design is appropriate to describe and portray characteristics of an event, situation, and a group of people, community or a population. In this case, key features within the community water schemes including: Registration of the entity running the community water project; Robust management structures; Attention to the commercial operations; Regular reporting; and Technical support provided from a range of external sources were considered.

3.3 Target population

The target population for this study comprised of all community based water projects operating in Mount Kenya South region of Kenya. According to the district water officers in Kieni East constituency, there were 55 community water projects operating in this region.

3.4 Sampling Procedure

The study utilized purposive sampling method in selecting the respondents from the target population. According to Chandran (2004) purposive sampling allows the researcher to use hand-picked cases or subjects for the study which have the required information as per the objectives of the study. Table 3.1 illustrates the study's sample size which according to Mugenda and Mugenda (2003) a study of this nature requires a sample of thirty (30) respondents.

Table 3.1: Sample Size

| Area | Population (N) | Sample (n) |
|--------------|-----------------------|-------------------|
| KIENI EAST | 55 | 30 |
| Total | | 30 |

3.5 Research Instruments

The data collected was both quantitative and qualitative in nature and was collected using a questionnaire. The questionnaire contained open and closed ended questions and was divided into two sections, A and B. Section A focused on the profile of the responding community water project while section B contained questions on the research objectives.

A questionnaire, as the data collection instrument of choice is, easy to formulate and administer and also provides a relatively simple and straightforward approach to the study of attitudes, values, beliefs and motives (Robson, 2002). Questionnaires may also be adapted to collect generalized information from almost any human population and results to high amounts of data standardization. It also allows collection of large amounts of data at

relatively low costs within a short period alongside a big allowance of anonymity which encourages frankness from the respondents especially in sensitive issues like socio-economic status.

3.6 Validity of the Instrument

The questionnaire was developed through pre-testing. Pre-testing is a pilot survey exercise to test a data collection tool aimed at bringing out any weaknesses of the tool before its actual application (Kothari, 1990). The questionnaire was pre-tested using a select portion of the population respondents before being fully administered for the actual data collection in order to test for validity. Those respondents used for the pre-test were not used for the final data collection.

3.7 Reliability of the Instrument

This study utilized one data collection instrument (that is, a questionnaire) and was collected once from the respondents, hence, reliability was therefore only considered in terms of internal consistency. The appeal of an internal consistency index of reliability is that it is estimated after only one test administration and therefore avoids the problems associated with testing over multiple time periods. Internal consistency was estimated via the split-half reliability index. The general convention in research has been prescribed by Nunnally and Bernstein (1994) who state that one should strive for reliability values of 0.70 or higher.

3.8 Data Collection

This study collected data relating to the factors influencing good governance of community management water projects in Kenya. The data was collected from the community water projects representatives'. The questionnaire was applied by the researcher using face to face interviews.

Secondary data was collected from the following sources: government publications, journals, water sector reports and publications relating to governance of community managed water projects in Kenya.

3.9 Data analysis

Collected data was edited, coded and analyzed using Statistical Package for Social Sciences (SPSS). Content analysis was used to analyze qualitative data, while descriptive statistics was used to analyze quantitative data. Primary data was interpreted using descriptive statistics such as mean, frequency and percentages as a measure of central tendency and standard deviation as a measure of dispersion of the respondents' views.

Specifically, the researcher analyzed both the qualitative and quantitative data thematically based on the study's independent variables namely: Registration of the entity running the community water project; Robust management structures; Attention to the commercial operations; Regular reporting; and Technical support provided from a range of external sources.

3.10 Summary

This chapter has highlighted the various steps and approaches that were used in carrying out the study. This is the methodology upon which this study was built on. As such the researcher has discussed research design, target population, sample procedure, data collection instruments, data collection procedures and finally data analysis.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter outlines the analysis and findings of collected data relating to the factors influencing good governance of community management water projects in Kenya.

4.2 Reliability Analysis

According to Miller (2003) reliability is defined as the extent to which a questionnaire, test, observation or any measurement procedure produces the same results on repeated trials. There are three aspects of reliability, namely: equivalence, stability and internal consistency (homogeneity). Equivalence, refers to the amount of agreement between two or more instruments that are administered at nearly the same point in time; stability, is said to occur when the same or similar scores are obtained with repeated testing with the same group of respondents; internal consistency concerns the extent to which items on the test or instrument are measuring the same thing. Bearing in mind that this study utilized one data collection instrument (that is, a questionnaire) and that data was collected once from the respondents, reliability was therefore only considered in terms of internal consistency. The appeal of an internal consistency index of reliability is that it is estimated after only one test administration and therefore avoids the problems associated with testing over multiple time periods. Internal consistency was estimated via the split-half reliability index, coefficient alpha (Cronbach, 1951) index. The general convention in research has been prescribed by Nunnally and Bernstein (1994) who state that one should strive for reliability values of .70 or higher. In this study, the Cronbach's Alpha was 0.777. This indicates that the extent to which the research

questionnaire tested the study's objectives was reliable as the combined Cronbach's Alpha was higher than 0.70 at 0.77

4.3 Descriptive Analysis

This section outlines the descriptive analysis relating to the community water projects. Table 4.1 illustrates the number of years the community water project has been in operation. According to the table, 67% of the water projects have been in operation for over 10 years, 23% for between 4 and 5 years and 10% for between 2 and 3 years. This finding indicates that majority of the community water projects under study had an adequate history of over 10 years.

Table 4.1: Number of years the community water project has been in operation

| How long ago was the community water project established? | Frequency | Percentage |
|--|------------------|-------------------|
| 0 - 1 year | 0 | 0% |
| 2 - 3 years | 3 | 10% |
| 4 - 5 years | 7 | 23% |
| 6 - 7 years | 0 | 0% |
| 8 - 9 years | 0 | 0% |
| 10 years and above | 20 | 67% |

Table 4.2 illustrates the number of members in the community water project. According to the table, 83% of the community water projects over 100 members and 7% between 81 and 100 members. This finding indicates that majority of the community water projects under study had over 100 members making them medium sized organizations which require good governance for their success and long-term sustainability.

Table 4.2: Number of members in the community water project

| What is the number of members in the community water project? | Frequency | Percentage |
|--|------------------|-------------------|
| 0 - 20 | 0 | 0% |
| 21 - 40 | 0 | 0% |
| 41 - 60 | 3 | 10% |
| 61 - 80 | 0 | 0% |
| 81 - 100 | 2 | 7% |
| 100 and above | 25 | 83% |

Findings indicated that all the community water projects under study had less than 20 staff members. According to the table 4.3, which illustrates how often elections were carried out in the community water project, 70% indicated that they were held after 2 years and 30% indicated that such elections were held after three years. This finding indicates that majority of the community water projects under study held elections after 2 years, hence it could be inferred that the leadership of such projects is democratically elected with a mandate of running the affairs of the community water project for a period of two years. Findings further indicated that all the positions within the community water project committees are up for elections.

Table 4.3: Frequency of elections in the community water project

| How often are elections carried out in CWP? | Frequency | Percentage |
|--|------------------|-------------------|
| Yearly | 0 | 0% |
| After 2 years | 21 | 70% |
| After three years | 9 | 30% |

Table 4.4 illustrates the number of committee members in the community water project. According to the table, 50% of the community water projects had 9 committee members, 27% had 11 members, 10% had 7 members, 7% had 13 members, and 3% had 14 members, while another 3% had 10 committee members. This finding indicates that majority of the

community water projects had 9 committee members hence it can be inferred that they were sizeable enough to allow for good governance.

Table 4.4: Number of committee members in the community water project

| How many committee members do you have? | Frequency | Percentage |
|--|------------------|-------------------|
| Eleven members | 8 | 27% |
| Nine members | 15 | 50% |
| Thirteen members | 2 | 7% |
| Fourteen members | 1 | 3% |
| Seven members | 3 | 10% |
| Ten members | 1 | 3% |

Table 4.5 illustrates the number of committee members in the community water project that were women. According to the table, 33% of the community water projects had 4 committee members that were women, 27% had 5 women, and another 27% had 2 women, while 13% of the community water projects had 3 committee members that were women. This finding indicates that majority of the community water projects had 4 committee members that were women and given that 50% of the community water projects had 9 committee members, it can be inferred that there was just fewer than 50% representation of women in the community water projects under study, making them quite gender balanced.

Table 4.5: Number of committee members in the community water project that were women

| How many (committee members) are women? | Frequency | Percentage |
|--|------------------|-------------------|
| Five | 8 | 27% |
| Two | 8 | 27% |
| Three | 4 | 13% |
| Four | 10 | 33% |

Table 4.6 illustrates whether the community water projects had a separate management system apart from the committee. According to the table, 3% of the community water

projects indicated that they had, while 97% did not. This finding indicates that majority of the community water projects did not have a separate management system apart from the committee which is proper for good governance as such a system plays an oversight role.

Table 4.6: Presence of separate management system apart from the committee

| Do you have a separate management system apart from the committee? | Frequency | Percentage |
|---|------------------|-------------------|
| Yes | 1 | 3% |
| No | 29 | 97% |

Table 4.7 illustrates the presence of competent staff in the community water project. According to the table, 77% of the community water projects indicated that there was competent staff within the community water project, while 23% indicated that there were no competent staff in the community water project. This finding indicates that majority of the community water projects had competent staff.

Table 4.7: Presence of competent staff in the community water project

| Does the CWP have staff for the project? | Frequency | Percentage |
|---|------------------|-------------------|
| Yes | 23 | 77% |
| No | 7 | 23% |

Table 4.8 illustrates whether the staff in the community water project were hired competitively. According to the table, 73% of the community water projects indicated that their staff were competitively hired, while 27% indicated that they were not. This finding indicates that majority of the community water projects hired their staff competitively.

Table 4.8: Presence of competent staff in the community water project

| In your opinion, are the staff hired competitively? | Frequency | Percentage |
|--|------------------|-------------------|
| Yes | 22 | 73% |
| No | 8 | 27% |

Table 4.9: Community water project water metered from the source

| Is the water project metered from the source? | Frequency | Percentage |
|--|------------------|-------------------|
| Yes | 25 | 86% |
| No | 4 | 14% |

Table 4.9 illustrates whether the community water project water was metered from the source. According to the table, 86% of the community water projects indicated that the water was metered from the source, while 14% indicated that it was not. This finding indicates that majority of the community water projects had their water metered from the source.

Table 4.10: Community water project with metered individual connection

| Are the individual connection metered and used for revenue collection? | Frequency | Percentage |
|---|------------------|-------------------|
| Yes | 6 | 20% |
| No | 24 | 80% |

Table 4.10 illustrates whether the community water project had the individual connection metered and used for revenue collection. According to the table, 20% of the community water projects indicated that the individual connection metered and used for revenue collection, while 80% indicated that it was not. This finding indicates that majority of the community water projects did not have an individual connection metered to be used for revenue collection. Table 4.11 illustrates the community water project modalities for collection of revenue. According to the table, 37% of the community water projects indicated that revenue was collected through direct deposit, 33% indicated that such revenue was collected using direct deposit and other different payment methods, while 30% indicated that such revenue was collected using different payment methods other than direct deposits. This finding indicates that majority of the community water projects had revenue collected through direct deposit.

Table 4.11: Community water project modalities for collection of revenue

| What are modalities for collection of revenue? | Frequency | Percentage |
|---|------------------|-------------------|
| Office Collection | 8 | 30% |
| Direct deposit to Bank | 10 | 37% |
| Direct deposit & Collection | 9 | 33% |

Table 4.12 illustrates how the community water project members considered the current tariff on the water services. According to the table, 55% of the community water project members considered the current tariff on the water services fair, 28% considered the current tariff as poor, while 17% of the community water project members considered the current tariff on the water services good. This finding indicates that majority of the community water project members considered the current tariff on the water services as fair, hence it can be inferred that there was equity in access of the water services.

Table 4.12: Community water project members' consideration of the current tariff on the water services

| In your opinion, how do you consider the current tariff on the water services? | Frequency | Percentage |
|---|------------------|-------------------|
| Excellent | 0 | 0% |
| Good | 5 | 17% |
| Fair | 16 | 55% |
| Poor | 8 | 28% |

Table 4.13 illustrates whether the community water project committee is able to meet its recurrent expenditure. According to the table, 68% of the community water project indicated that their respective committees are able to meet the project's recurrent expenditure, 21% indicated that the committees are not able to meet the project's recurrent expenditure, while 11% indicated that the committees are not always able to meet their recurrent expenditure especially during the rainy season. This finding indicates that majority of community water project committees are able to meet their recurrent expenditure.

Table 4.13: Ability of community water project committee to meet its recurrent expenditure

| Is the project able to meet its recurrent expenditure | Frequency | Percentage |
|--|------------------|-------------------|
| Yes | 19 | 68% |
| No | 6 | 21% |
| Not always, during rainy season | 3 | 11% |

Table 4.14 illustrates the community water project members’ opinion on the growth of water sales revenue. According to the table, 45% of the community water project members indicated that the growth of water sales revenue was fair, 34% indicated that such growth was poor, while 21% indicated that the growth of water sales revenue was good. This finding indicates that majority of community water project members are of the view that the growth of water sales revenue as fair.

Table 4.14: Community water project members’ opinion on the growth of water sales revenue

| In your opinion indicate how you view the growth of water sales revenue? | Frequency | Percentage |
|---|------------------|-------------------|
| Excellent | 0 | 0% |
| Good | 6 | 21% |
| Fair | 13 | 45% |
| Poor | 10 | 34% |

Table 4.15 illustrates the presence of key features in the community water project. To measure the presence of the key features, the researcher coded the respondents considerations where “Strongly agree” was given the value five (5.0), “Agree” was given the value four (4.0), “Indifferent” was given the value three (3.0), “Disagree” was given the value two (2.0) and “Strongly disagree” was given the value one (1.0). According to the table, the respondents strongly agreed that there was good record keeping within the committee on the revenues collected and expenditure; and that there was regular reporting, including annual

financial audits from the committee to members as their means drew closer to five (5.0) at 4.53 and 4.60 respectively. The respondents agreed that there was a basic financial system in place for funds management; that there were checks in place for expenditures to the project; and that improved banking services in the area had enhanced transparency and accountability of water revenues collected as their means drew closer to (4.0) at 3.87, 4.20 and 3.57 respectively. The respondents were indifferent as to whether regular financial audits were carried out by external auditors on the community water project books as its mean drew closer to (3.00) at 2.88. This finding indicates that most of the key features considered in the community water project were present, hence it can be inferred that there was good governance of the community water projects.

Table 4.15: Presence of key features in the community water project

| Key Feature | Mean |
|--|-------------|
| Good record keeping within the committee on the revenues collected and expenditure | 4.53 |
| Regular reporting, including annual financial audits from the committee to members | 4.60 |
| Regular financial audits carried out by external auditors on the CWP books | 3.17 |
| Basic financial system in place for funds management | 2.88 |
| Checks in place for expenditures to the project | 4.20 |
| Improved banking services in the area has enhanced transparency and accountability of water revenues collected | 3.57 |

Table 4.16 illustrates the aspects of the government of Kenya water sector reform program that have been realized in the community water project. To measure the aspects, the researcher coded the respondents considerations where “Strongly agree” was given the value five (5.0), “Agree” was given the value four (4.0), “Indifferent” was given the value three (3.0), “Disagree” was given the value two (2.0) and “Strongly disagree” was given the value one (1.0). According to the table, the respondents agreed that there was sufficient trained personal in repairs and maintenance of water system; that there was enough technical &

financial support from the NGOs, churches, in water system management; and that there was capacity within the locality on accessing and purchasing repair materials and equipment as their means drew closer to (4.0) at 4.33, 3.73 and 4.00 respectively. The respondents were indifferent as to whether there was engineering support in operations and maintenance provided by government (district water office and Water service board) as its mean drew closer to (3.00) at 3.17. The respondents disagreed whether there was training provided to the committee for operations and maintenance as its mean drew closer to (2.00) at 1.87. This finding indicates that most of the aspects of the government of Kenya water sector reform program had been realized in the community water project.

Table 4.16: Aspects of the government of Kenya water sector reform program that have been realized in the community water project

| Aspects | Mean |
|--|-------------|
| Sufficient trained personal in repairs and maintenance of water system | 4.33 |
| Enough technical & Financial support from the NGOs, churches, in water system management | 3.73 |
| Engineering support in operations and maintenance provided by government (district water office and Water service board) | 3.17 |
| Capacity within the locality on accessing and purchasing repair materials and equipment | 4.00 |
| Training provided to the committee for operations and maintenance | 1.87 |

Table 4.17 illustrates the community water project members view on the challenges faced in the community water project. To measure the challenges, the researcher coded the respondents considerations where “Strongly agree” was given the value five (5.0), “Agree” was given the value four (4.0), “Indifferent” was given the value three (3.0), “Disagree” was given the value two (2.0) and “Strongly disagree” was given the value one (1.0). According to the table, the respondents strongly agreed that inadequate skills in wider poverty reduction programs; and reduced flow of water from natural causes and human activities at source posed challenges to the community water projects as their means drew closer to (5.00) at 4.67

and 4.57 respectively. The respondents agreed that lack of vision and poor planning; member defaults; and general financial difficulties posed challenges to the community water project as their means drew closer to (4.0) at 3.73, 3.70 and 3.77 respectively. The respondents were indifferent as to whether community conflict posed a challenge to the community water project as its mean drew closer to (3.00) at 3.03. The respondents disagreed whether interference by non-members; lack of community awareness; and illegal water connections posed challenges to community water projects as their means drew closer to (2.00) at 1.83, 1.93 and 1.50 respectively. The respondents strongly disagreed that interference and sabotage by men in women-led schemes posed any challenges in community water projects as its mean drew closer to (1.00) at 1.20. This finding indicates that inadequate skills in wider poverty reduction programs and reduced flow of water from natural causes and human activities at source pose the greatest challenges to community water projects in Kenya.

Table 4.17: Challenges faced in the community water project

| Challenges | Mean |
|--|-------------|
| Lack of vision and poor planning | 3.73 |
| Interference by non-members | 1.83 |
| Community conflict | 3.03 |
| Lack of community awareness | 1.93 |
| Inadequate skills in wider poverty reduction programs | 4.67 |
| Interference and sabotage by men in women-led schemes | 1.20 |
| Illegal water connections | 1.50 |
| Member defaults | 3.70 |
| General financial difficulties | 3.77 |
| Reduced flow of water from natural causes and human activities at source | 4.57 |

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives the summary of major findings, discussions, conclusions and recommendations of the study. The purpose of the study was to establish factors influencing effective governance of community managed water projects in Kenya by undertaking a case study of Kieni East constituency. The findings act as a guide for future planning and management of community managed water projects in Kenya which in turn improve overall governance of water services in the country.

The study was guided by the following objectives; to establish whether registration of the entity running the community water project and its management structures influences good governance, ascertain whether attention to the commercial operations within the community water and regular reporting to the project members influences good governance, and finally to establish whether technical support provided from a range of external sources for the community water project influences good governance.

The researcher adopted a descriptive research design which is appropriate to describe and portray characteristics of the community water project. In this case, key features within the community water schemes including: Registration of the entity running the community water project; Robust management structures; Attention to the commercial operations; Regular reporting; and Technical support provided from a range of external sources were considered.

5.2 Summary of Findings

The study revealed that 100% of the water projects members interviewed were registered entities in accordance with the requirements of the Social Services department and had valid registration certificates. In summary, 67% of the water projects have been in operation for over 10 years and 83% of the community water projects over 100 members.

On the management structures, the study observed that 97% of the community water projects indicated that they did not have a separate management system. The staff and management committee did undertake operations of the activities. This finding indicates that majority of the community water projects did not have board and management relationship that is provided by the committee to management which is not proper for good governance as such a system plays an oversight role.

On the commercialization of the project, the finding indicates that 80% of the community water projects did not have an individual connection metered to be used for revenue collection while 86% of the community water projects indicated that the water was metered from the source. This implied that the community water project paid for the water per the consumption to WRMA while they charged their consumers flat rate. It was also found that 55% of the community water project members considered the current tariff on the water services fair and 68% indicated that their respective committees are able to meet the project's recurrent expenditure.

According to the study, the respondents strongly agreed that there was good record keeping within the committee on the revenues collected and expenditure; and that there was regular reporting, including annual financial audits from the committee to members. The respondents agreed that there was a basic financial system in place for funds management; that there were

checks in place for expenditures to the project; and that improved banking services in the area had enhanced transparency and accountability of water revenues collected. The respondents were indifferent as to whether regular financial audits were carried out by external auditors on the community water project books.

The study also indicated there was sufficient trained personal in repairs and maintenance of water system; that there was enough technical & financial support from the NGOs, churches, in water system management; and that there was capacity within the locality on accessing and purchasing repair materials and equipment. The respondents were indifferent as to whether there was engineering support in operations and maintenance provided by government (district water office and Water service board). The respondents disagreed whether there was training provided to the committee for operations and maintenance. This finding indicates that most of the aspects of the government of Kenya water sector reform program had not been realized in the community water project.

Finally, the research also indicated that there was inadequate skills in wider poverty reduction programs and reduced flow of water from natural causes and human activities at source pose the greatest challenges to community water projects in Kenya.

5.3 Discussions

The study has showed that registration of the community water project plays a significant role in the governance of community water project. Registration brings people with common interest together to form an association that will advance their goal. The study revealed the process of registration allows the members to define various governance tools that will allow the smooth operation and advancement of their project. The most important is the constitution, the financial books and the various forms that are filled for daily operations.

These documents are always used as reference point during conflicts and also determine the relationship with external entities such as suppliers and government officials.

The study found out that most of the community water projects were run by committees that are drawn from the membership of the water project. This is has been due to feeling of sense of ownership that pervades the water project due to their contributions both monetary and labour. Gender parity has also been observed, which tends to moderate the decisions that are taken within the committee. However most of the committees lack targets to be achieved and aim at maintaining low operating costs as a result poor revenues. The study also found out that most of the projects have staff that report to the management committee. The staff were hired competitively but other projects, the staff are hired temporarily or on part time basis to reduce operating costs of the project.

The study found out that most of the water projects abide by the constitution especially in carrying out elections however most of the constitutions have no clear mechanisms that allow continuity during the transition of one committee to another. This has resulted in loss of time and goodwill that has been previously enjoyed with service providers such as suppliers, government institutions and technical personnel. Discussions during the study indicated that for the committees to be successful, there will be need to incorporate into the constitution mechanism that allow continuity by having committee member's tenures to lapse in phases. It was also noted that the tenure of the leadership of these committees is unlimited hence resulting in some of the committee members having served for a long periods in critical positions such as chair, secretary or treasurer. Though the advanced reasoning has been that these are tested hands, it stifles the need to have new and fresh ideas that may be injected into the committee and the project as a whole.

The projects studied have all been running the operations with the aim of service provision and meeting the operations costs of the project. Lack of commercialization has had a significant impact on the revenues of the water project. The study has found the 86% used the flat rate tariff where members are charged a fixed amount, regardless of how much water they use. In as much as the members perceive the tariff to be fair (55%) the tariff does not encourage efficient use of water since members do not have an incentive to conserve or avoid wastages, and the monthly costs are extremely low. The study shows this has resulted in the projects having limited revenues and constant shortage of water resulting in rationing of water to various sections of the users. The study concludes that the need to install meters and revise tariffs to ensure that the project has enough resources to carry out its day to day responsibility of delivering services and also ensure that conservations of water resources. This will also entail staffing and management structures to be put in place for efficient service delivery.

The study also revealed that some of the committees have embraced technology in service delivery that had enhanced their governance of water project. The use of mobile technology in delivering monthly statement and using direct deposits to banks and micro finance institutions are some of the advancement that have enable some of the water projects to improve on efficiency and curb corruption.

On reporting back to the community, the study indicated that there was a high level of accountability between the management committee and the members. Meetings between management committee and members have been regular with members able to follow the presented financial statements. This can be attributed to transactions of the water schemes that have remained simple thereby requiring simple book keeping and this has enabled understanding of the transactions undertaken to be easily presented and comprehensible to the

members. Furthermore, most of the transactions revolve around the purchase of materials for maintenance and payment of wages and committee allowance thereby allowing members to easily relate and validate the expenses.

On technical support provided from a range of external sources, the study found that the community water projects have mostly been self-reliant especially on the day to day operations and maintenance of the project. The use of local technicians who are also members, has been an effective alternative due to their availability. The study found that there is minimum support that is offered externally to the project that will influence the governance of the project.

However it's important to note that most of the projects relied on the technical support from the district water office and NGOs during the commencement of the project or undertaking a major extension to the existing system.

The study indicates that There is also shortage of qualified technical experts in the district that can support the projects and a lack of support to the existing staff both in equipment's and mobility severely handicaps them to have an impact on the water project.

The reforms that were envisaged by the water act of 2002 to support and licence the community water project did not materialize. The water act of planned to amalgamate the community water projects and form them into commercially viable units that will get their mandate from the water service board. This could not materialize in the area of study due to various factors chiefly among them resistance from the owners of the water project.

However from the study, one of the key factors affecting effective governance of the water project has been dwindling water resource that have forced rationing between different users. This has resulted in conflict between members and the committee resulting in defaults due to

poor services. The study also noted that the water projects committees have had no strategic plan and clearly lacked capacity in poverty alleviation programmes and training for their members.

5.4 Conclusion

In conclusion, the study showed that good governance of community water project is hinged on transparency and accountability that is used to manage these institutions. It is evident that the legal recognition of the community water project, their management structures that conform to their need, commercialization and reporting back to the community enhances the efficiency and sustainability of the community water projects. External support was found to be important during the start-up of the project but insignificant once the project has been up and running.

5.5 Recommendations

1. The study revealed that 86% of the community water projects operated on a flat rate basis of water supply that is wasteful and not efficient thus we recommend adoption of meters and water conservation tariffs to ensure equity of water resources.
2. It is recommended to commercialize management services to allow efficiency and sustainability.
3. The research also found out that 100% of the committees tenures are renewable at the end of term affecting continuity thus we recommend the tenures of committee members to be staggered to ensure continuity.
4. Lack of audited accounts was revealed and we recommend that the project be audited regularly.

5.6 Research Limitations

The research only looked at only the governance aspect of community water project, which was very limiting in that there are also various factors that may considered in the successful management of community water project. This may include the ownership of the water project, cultural aspects that may influence the running community water project, sustainability issues and the business approach that may have adopted by the members.

5.7 Areas of Further Studies

This study adds to the existing body of knowledge on the governance of community water project, an area that has not received much attention. This research was not exhaustive as needed because of time and cost restraints.

However, further research on the integration of the community water project within the county government system will be important to all stakeholders in the country. This will allow the community water project to be access finances and technical support in a more coordinated manner and avoid the challenges that have been observed in the study. Also there are various other factors that may not have been exhausted by the study such as the influence of culture, community organization and ownership models on community water project. Other issues to be studied may include water conserving tariffs for community water project.

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APPENDIX I: QUESTIONNAIRE

Instructions: Please fill in the response to each question by ticking (✓) and inserting your comments appropriately

Section A: Demographic data

1. Name of community water project.....
2. How long ago was the community water project established?
0 – 1 year () 2 – 3 years () 4 – 5 years ()
6 – 7 years () 8 – 9 years () 10 years and above ()
3. What is the nature / type of the community water project?
Non-Governmental Organization (NGO) ()
Community Based Organization (CBO) ()
Faith Based Organization (FBO) ()
Private Limited Company ()
Partnership ()
Sole Proprietor / Business ()
Other (please specify).....
4. What is the number of staff in the community water project?
0 – 20 () 21 – 40 () 41 – 60 ()
61 – 80 () 81 – 100 () 100 and above ()
5. What products / services are offered by the organization (tick as many as are appropriate)?
Piped Water Connections () Bore Hole Services ()
Water Harvesting Facilities () Community Training ()
Other (please specify).....

Section B: Factors influencing community managed water projects based in Kenya

Registration of the entity running the community water

1. Is the CWP registered and by whom?

2. Which Kenyan water sector institutions provide licensing and other related service(s) to the community water project?

3. What are the benefits of the registration?

Management structures within the community water project

1. How often are elections carried out in CWP
 - a. Yearly
 - b. After 2 years
 - c. After three years

2. Are all the positions in the committee up for elections?
 - a. Yes
 - b. No

3. Are there any qualification required to be a member?
 - a. Yes
 - b. No

If yes, clarify _____

4. How many committee members do you have and how many are women?

5. Do you have a separate management system apart from the committee?

1. Yes

2. No

6. Does the CWP have staff for the project?

c. Yes

d. No

7. In your opinion, are the staff hired competitively?

e. Yes

f. No

Attention to the commercial operations within the CWP?

1. Is the water project metered from the source?

a. Yes

b. No

2. Are the individual connection metered and used for revenue collection?

- a. Yes
 - b. No
3. What are modalities for collection of revenue?
- a. Office collection
 - b. Direct deposit to account
 - c. Mpesa
4. In your opinion, how do you consider the current tariff on the water services?
- a. Excellent
 - b. Good
 - c. Fair
 - d. Poor
5. Is the meeting the project able to meet its recurrent expenditure
- a. Yes
 - b. No
6. In your opinion indicate how you view the growth of water sales revenue?
- a. Excellent
 - b. Good
 - c. Fair
 - d. Poor

Regular reporting within the CWP

7. Please rate the importance of the following key features within the community water schemes in the community water project: *(Rating Scale: 1- Strongly disagree; 2 – Disagree; 3 – Indifferent; 4 – Agree; 5 – Strongly Agree)*

| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| Good record keeping within the committee on the revenues collected and expenditure | | | | | |
| Regular reporting, including annual financial audits from the committee to members | | | | | |
| Regular financial audits carried out by external auditors on the CWP books | | | | | |
| Basic financial system in place for funds management | | | | | |
| Checks in place for expenditures to the project | | | | | |

Technical support provided from a range of external sources

8. Please rate extent to which the following aspects of the government of Kenya water sector reform program have been realized in your community water project: *(Rating Scale: 1- Strongly Disagree; 2 – Disagree; 3 – Indifferent; 4 – Agree; 5 – Strongly Agree)*

| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| Sufficient trained personal in repairs and maintenance of water system | | | | | |
| Enough technical & Financial support from the NGOs, churches, in water system management | | | | | |
| Engineering support in operations and maintenance provided by government (district water office and Water service board) | | | | | |
| Capacity within the locality on accessing and purchasing repair materials and equipment | | | | | |
| Training provided to the committee for operations and maintenance | | | | | |

9. In a scale of 1 to 5 where; 1- *Strongly Disagree*; 2 – *Disagree*; 3 – *Indifferent*; 4 – *Agree*; 5 – *Strongly Agree*), which of the following statements reflect challenges faced in the community water project?

| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| Lack of vision and poor planning, | | | | | |
| Interference by non-members | | | | | |
| Community conflict | | | | | |
| Lack of community awareness | | | | | |
| Inadequate skills in wider poverty reduction programs | | | | | |
| Interference and sabotage by men in women-led schemes | | | | | |
| Illegal water connections | | | | | |
| Member defaults | | | | | |
| General financial difficulties | | | | | |
| Reduced flow of water from natural causes and human activities at source | | | | | |

Thank you.