ROLE OF MEDIA COMMUNITY MOBILIZATION IN WATER ACCESS AND USE IN MBEERE SOUTH, KENYA

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DEDICATION

This project is dedicated to my late mother Gaudisia Kiura. Your memories live on.

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ACRONYMS AND ABBREVIATIONS

CEC	:	County Executive Committee Member
CIDP	:	County Integrated Development Plan
EWASCO	:	Embu Water and Sanitation company
ICT	:	Information and Communication Technology
KENGEN	:	Kenya Electricity Generating Company
MDG	:	Millennium Development Goals
NEMA	:	National environment Management Authority
SDG	:	Sustainable Development Goals
UN	:	United Nations
UNESCO	:	United Nations Educational, Scientific and Cultural Organization
UNICEF	:	United Nations Children's Education fund
WASH	:	Water, Sanitation and Hygiene
WHO	:	World Health Organization

WSB : Water Service Board

WSP : Water Service Provider

DEFINITION OF TERMS

Media

Media in general refers to the various means used to communicate. It is a tool that can be used to enhance knowledge transfer among people or institutions and convey messages to various audiences.

Water access

The ability of a proportion of the population to have any piped water, public tap, borehole with a pump, protected well, and springs or rainwater source (UNDP). In this study, water access is associated to distance to water source, quality of water and cost of water.

Water use

Use of water for domestic purposes or agricultural purposes.

Media community mobilization

How the media initiates, directs and sustains conversations with water stakeholders resulting to action towards improving the situation.

Social action

The act of people coming together to improve their lives or solve problems in their communities.

ABSTRACT

This research project set out to study the link between media community mobilization and water access and use in Mbeere South constituency, Kenya. The study seeks to find out how media engagement with stakeholders affects water access and use in the study area. The objective of the study was to find out what water sources are available to residents within the study area; the media platforms available in the study area and the frequency of their use; how stakeholders articulate water access issues; and the influence of media community mobilization on water access and use in the study area. The study utilizes a descriptive study design. Data was collected using Key Informant Interviews, Focus Group Discussions and semi-structured interviews. The study instruments yielded both qualitative and quantitative data. The study observed ethical considerations including seeking consent and observing COVID-19 precautions. The study findings indicate that the most common source of water available to residents is boreholes while piped water is the least available source in the study area. Most respondents spend more than one hour to access the water sources and most of the water is used for domestic purposes. Community management of water sources remains the most common form of water management. The radio emerges as the most common media platform available in the study area and consequently radio discussions are the most known means of engagement on water issues in the area. A majority do not know of social action taken after media engagement on water issues, but there is knowledge of demonstrations and meetings to address water challenges in the study area. Respondents do not think media community mobilization has influenced water access and use in Mbeere South, with most respondents stating there is no change in access and use as a result of the media articulation. The study concludes that despite a weak link between media engagement on water issues and water access and use in Mbeere South constituency, there is evidence of significant media community engagement on water issues and high collaboration between residents, local leaders, county government and KENGEN company. There is need for studies on how formal and informal rules and Embu county government institutions influence the distribution of water resources in Mbeere South constituency.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Mbeere South constituency in Embu County, Kenya, is classified as a semi-arid area, which receives unpredictable rainfall. Many areas in the constituency depend on seasonal and a few permanent rivers for water supply. In addition, there are community and private water pans that provide water to the residents. Boreholes are also a major source of water in various villages in the constituency. However, these sources of water come with various challenges such as: distance, funding, and sustainability. Owing to water scarcity in Mbeere South, residents use most of the water available to them for domestic use, while depending on rainfall for agriculture. These water challenges and efforts to address the situation are part of community discourses. Stakeholders have increasingly turned to media community mobilization in their effort to solve the water problem.

Water availability and access challenges are closely linked to climate change especially in developing countries. With rising climate change, developing countries are bearing with a lot of the negative effects because they have the least resources to deal or cope with the changes. Climate change can cause frequent drought and frequent water shortages thus further worsen the state of most rural people in developing countries. Santos et al., (2017) shows that the Global Risk Report has placed water among the uppermost five universal threats that would highly affect humanity. "In the latest report, water comes after weapons of mass destruction, extreme weather events, and ahead of major natural disasters and climate change" (Santos et al., 2017). In Africa, where a majority of the inhabitants use water that is untreated and from unprotected sources especially in rural areas, there is need for concerted efforts to improve the performance of institutions so as to ensure the water access situation changes for the better (WHO/UNICEF, 2017). According to the Embu County Integrated Development Plan (CIDP) of 2019, Mbeere South is classified as an arid and semi-arid area (Asal) and is vulnerable to the effects of climate change. Already, there is rampant environmental degradation in the form of sand harvesting, deforestation, illegal logging and charcoal production and soil erosion in the area. Sand harvesting is especially popular in Mbeere South despite negative outcomes such as drying up of springs and poor retention of water

in rivers. Overall, climate change would have dire consequences for developing countries including Kenya; which translates to higher temperatures and erratic weather patterns for communities such as Mbeere South constituency.

Moumen et al., (2019) argues that water resources face stresses including management, climate change, diminution, population, and fiscal growth. These are some of the factors that can cause lack of water security, which is linked to food and environmental sustainability. According to the UNESCO tactical plan on International Hydrological Program, water security refers to "the capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability" (Shrestha, 2018) in Moumen et al., (2019). Water security, is among the critical areas of attention of the Sustainable Development Goals (SDGs) since it is vital for social economic development, energy and food production, healthy ecosystems and human survival. (UN, 2018). Sustainable development is defined in three concepts: environmental, economic and social. The (UN, 1987) highlighted participation as a key part of sustainable development.

A report on the Water, Sanitation and Hygiene (WASH) joint monitoring program (2019) by the World Health Organization (WHO) and the United Nations Children Education Fund (UNICEF) shows that "only 59% of Kenyans have access to basic water services and only 29% have access to sanitary services". This is despite the SDG goal 6, which aims at ensuring universal obtainability and viable handling of water and sanitation for everyone. As per the United Nations (UN), water access is key to attaining sustainable development. This is because it has implications on health outcomes; whereby lack of access to clean water may lead to waterborne diseases, poor sanitation practices which undermine the dignity of women and high rates of child mortality. According to the UN, water scarcity often leads to lack of gender consciousness; whereby the interests of women and their distresses fail to be represented at international or local forums where water discussions are held. UNICEF (2008) said in order to achieve the Millennium Development Goal (MDG) on water and sanitation, women had to be part of the water discussions. The statement by UNICEF was prompted by the realization of a gap between rhetoric and practice on gender consciousness

when addressing water issues. The MDG number 7 has been criticized for failing to explicitly note the importance of women's contribution to the water debate despite the amount of time they spend collecting water. "Better access to water and sanitation facilities can result in health benefits for women and girls, as well as privacy, dignity, reduced risk from sexual harassment and gender violence, as well as better educational and economic opportunities and life chances" (UN, 2016). International bodies have rallied for increased involvement of women in community water projects, given their comprehensive know-how on local water sources and as the probable major users of such developments. There is therefore need to address gender and cultural biases to ensure increased and wholesome participation of women in the water access and scarcity discourse, (UN and Mehta, 2013).

Access to clean water reduces poverty, disease and improves living standards of poor people. The World Health Organization (WHO) perceives access to clean water as "receipt of 20-25 liters of water per person per day as the absolute minimum and the recommended amount is 50-100 liters per person per day (Robinson, 2004) in Rodriguez (2011)." WHO also recommends that availability of water be within 1km of the home with access time being less than 30 minutes. Water scarcity may result from policy or mismanagement and has also been linked to geographical, economic, institutional and social marginalization. For water systems to be sustainable, they should ensure equitable distribution, ensure preservation of the ecological reserves and have appropriate pricing structures.

Water access inequalities exist in sub-Saharan Africa and include; between urban and rural areas, between sub-national and geographical units and households' socio-economic strata. Some of these inequalities are rooted in historical flaws in development and infrastructural policies. Hungerford and Smiley (2016) in Adams and Smiley, (2018), argue that water access inequalities in East and West Africa can be attributed to colonial strategies. Further, households that are more social- economically empowered have better access compared to poorer households. Inequalities in water access also exist in the form of water sources, for instance water sources in urban areas are less prone to breaking down owing to mechanisms and resources expended towards such sources while in rural areas, water sources such as boreholes are prone to breakdowns and longer repair periods hence unsustainability. Adams and Smiley (2018) argue that water access

inequalities manifest through: source type, availability of the water when needed, affordability and accessibility (such as distance to water point). Lack of adequate water for domestic and agricultural use has been linked to water wars/conflict. According to Belt (2010) in Adams and Smiley (2018) the term 'rivals' originated from Latin term '*rivalis*' which referred to people contesting for the use of a river or stream. This shows the depth of the linkage between competition for water resources and conflict. Such conflicts have been cited in some parts of Kenya. Former UN secretary Koffi Annan in 2001 said: "Fierce competition for freshwater may well become a source of conflict and wars in the future." (Postel and Wolf, 2001) in Rodriguez (2011).

This project seeks to investigate how media (radio and television broadcasts, print and social media forums) engagement with Mbeere South stakeholders enables them to address the water access and use challenges in the area.

1.2 Statement of the Problem

According to Origa (2019) almost a third of rural water systems in Kenya are dysfunctional at any given time and almost two thirds start malfunctioning within 3-5 years of construction. The author argues that there has been little effort to incorporate rural knowledge in water management designs and recommends "community driven development" as one of the ways sustainable development can be achieved. Santos et al, (2017) say one requirement for rural water projects to be impactful is by ensuring there is public involvement in every part of the project and not management of the same by 'external' players. The scholars conclude that future efforts to enhance water access should be flexible to allow various methods of involvement including creative approaches so as to boost participation and increase the expected communal benefits.

Water access challenges have persisted in Mbeere South constituency for decades. Efforts to address the situation have largely been top-down government approaches. The media is leveraged in creating a proactive environment for dealing with the problem through information, sensitization and communication of development issues to the public as well as shaping of the attitudes of stakeholders towards water access and use. However, there is scant literature on the use of media platforms to mobilize communities and other water stakeholders to solve the access challenges

that are experienced in rural areas such as Mbeere South constituency. Further, Santos et al, (2017) says most of the literature focuses on urban low-income areas. This study seeks to establish how traditional and social media platforms are contributing to stakeholders' participation to ensure enhanced water access and use in rural areas, such as in Mbeere South constituency.

1.3 Research Questions

The overall research question for this study is how does media engagement with residents and stakeholders affect water access and use in Mbeere South constituency? The specific research questions are:

1. What are the various sources of water available for households in the study area?
2. What types of media platforms are available to stakeholders in the study area and frequency of use?
3. How do the various media platforms in the study area engage stakeholders on water issues?
4. How does media articulation of water issues in the area affect access and use?

1.4 Objectives

The overarching objective of the study is find out how media community mobilization in Mbeere South constituency contributes to addressing water access and use challenges in the area.

The specific objectives are:

1. To find out the available sources of water in the area of study.
2. To find out what media platforms are available to the people in the study area and how often they use the platforms.
3. To investigate how the available media platforms, articulate water access issues.
4. To analyze the influence of media-community articulation of water issues on access and use in the study area.

1.5 Justification

I have chosen Mbeere South constituency because it has been marginally researched on and this study would be a fresh input in the knowledge space. Water access and use is also vital to the

achievement of inclusive development. Goal Six of the SDGs is on clean water and sanitation access. According to the United Nations (UN), water access is key to attaining sustainable development because it has implications on health outcomes whereby lack of access to clean water may lead to waterborne diseases, poor sanitation practices that undermine the dignity of women and high rates of child mortality.

Further, from recent observations it is evident that media has become an avenue through which citizens and leaders can address development issues including water concerns. Touching on social media is also an intriguing aspect, given that its use is spreading fast and becoming a day-to-day tool that can be used to advance social, political and development agendas. This study seeks to explore how the media has created an environment in which stakeholders can participate in the quest for clean and adequate water in Mbeere South, which has developmental implications based on how the water available is utilized.

1.6 Scope and Limitations of the study

This study was conducted in Mbeere South constituency and targets residents of the study area and other water stakeholders such as the county water service provider – Embu Water and Sewerage Company (EWASCO) as key informants. The study is limited by the reliance on availability of media platforms to the study area residents and their knowledge of media engagement on water issues in the study area. Thus, the study focused on various platforms such as radio, television, newspaper and social media. A study focusing on one of the media platforms stated is recommended in future as more literature on the study area emerges.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This section contains four parts, with the first addressing major concerns surrounding the larger water access narrative - including water as a universal human right, and in Kenya, where it is a devolved function. It also presents a review of relevant literature that informs the study. The second part contains the theoretical literature - Institutional and Cultural theory, which guided this study. The third part is the summary of literature, which outlines the gap noted in the literature reviewed. The fourth section is the conceptual framework.

2.2. Water as a Rights Issue

Rights can be defined as formal or informal constraints meant to protect citizens from arbitrary exercise of power by states. They can also be defined as morally recognizable claims. The right to water is linked to availability, quality and accessibility (physical and economic).

The right to water is recognized as key for sustenance of human beings and some scholars have referred to water as 'liquid food'. However, the right to water is limited to water for personal and domestic use and not for agricultural use. Rodriguez (2011) describes water as a limited natural resources yet a key public good that affects the attainment of other human rights.

Globally, water access has been addressed through various declarations such as The Habitat Agenda (Habitat 11) that was agreed upon by the UN Conference on Settlements in 1996 that recognizes water as part of the right to acceptable living standards (Shelton, 2007) in Rodriguez (2011). The Millennium Development Goals (MDGs) which were declared in 2000 and aimed at reducing by half the population that lacked access to clean water also recognize the human right to water. In the MDGs, the right to water has been linked to other development outcomes including; universal primary education, lower child mortality, maternal health, and gender equality. According to (OHCR, 2007) in Rodriguez (2011), "about 1.8 million children die of diarrhea and other diseases caused by unclean water and sanitation."

The MDGs were followed by the 2002 Johannesburg World Summit for Sustainable Development where more focus was put on availing water and sanitation services to the masses (UN, 2015). Afterwards, the United Nations General Assembly, in Resolution A/RES/58/217 of 2003, declared the years 2005-2015 as the global 'Water for Life' decade. This declaration took effect from March 2005. There are also African charters that address the right to water access including: The protocol to the African Charter on Human and Peoples' rights on the Rights of Women (2003); The African Convention on the conservation of Nature and natural resources (2003)- which demands that member states commit to provide adequate water for their inhabitants. These conventions and initiatives show the global stand that water is a basic need that cannot be ignored and is an inalienable human right. This is strengthened by the various United Nations-Human Rights instruments such as Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) Article 14 (2) which recognized the right to water as part of measures to eliminate discrimination against women in rural areas.

According to Green Cross International (2004), water as a human right has been out rightly acknowledged through the following conventions: "The Mar del Plata Action Plan for Water (1977), The Convention on the Elimination of all forms of Discrimination against Women (1979), The Convention on the Rights of the Child (1989) and The Dublin Declaration on Water for Sustainable Development Implementation (1992)". One of the latest agreements on water as a rights issue is the United Nations General Assembly (UNGA) Resolution 64/292 of 2010. Krakow (2020) has however criticized the Resolution for not addressing how the unequal access to water can be addressed.

Cole et al., (2018) argue that water is a vital contributor to the achievement of sustainable development and economic growth. This right to water has also been acknowledged by the UNGA Resolution 54/175 (1999) but the instrument has been criticized for recognizing the human right to water as long as it affects another broader human right such as the right to development (Krakow, 2020). The Catholic church has also weighed in on the issue of water as a fundamental human right. Pope Francis (2015), in Tortajada and Biswas (2017) says "access to safe drinkable water is a basic and universal human right. It is essential for human survival and, as such, is a condition for the exercise of other human rights."

In Kenya, the Water Act of 1974, among other early policies, aimed at availing clean water to households by reducing the distance to water sources significantly by 2000. Currently, there is continued lack of access to clean water despite the commodity being a constitutional right according to the 2010 Constitution. Article 43 (1) (*d*) states that "every person has the right to clean and safe water in adequate quantities". This is reinforced by other sections such as Article 56, on minorities and marginalized groups and in particular Article 56 (e), which advocates for affirmative action to ensure such groups of people have "reasonable access to water, health services and infrastructure". Further, under Kenya's Vision 2030, the government has promised to ensure water access through the environment, water and sanitation sub-sector. The preferred strategy to achieve this goal in some of the rural areas is by drilling boreholes, rehabilitating water schemes and building water pans and dams.

Gupta and Obani (2017), argue the right to access clean water cannot be separated from sustainable development; which comprises not just fiscal development but also social inclusion and preservation of the environment to ensure there is equity among present and future generations. Social inclusivity consists of attainment of social justice and poverty reduction; further it encourages participatory development including on water access and sanitation issues. Consequently, according to Mehta (2014), implementation of the right to water must take into consideration the Entitlement Approach and Capabilities Approach to ensure efficiency. These approaches give insights into which methods are best applicable to resolving water challenges in various communities depending on their geographical properties, and socio-economic status and practices. When the entitlement approach to water scarcity is applied, it indicates that lack of water for some people or communities does not mean that the commodity is scarce, rather, such groups of people may fail to access the available sources of water because they lack certain entitlements that would otherwise enable them have access to the water sources. Exclusion and lack of entitlement can occur on basis of location (urban vs. rural), economic status (rich vs. poor). Amartya Sen defines entitlements as the 'the set of alternative commodity bundles that a person can command in a society using the totality of rights and opportunities that he or she faces' (Sen, 1983: 754) in Mehta (2014). Water access as a right should also consider the capability approach that was also advocated for by Sen. This approach focuses on issues such as "autonomy, links with identity and the freedom to choose. It is often assumed that once water supply is provided within

a certain distance (usually about 1000 meters) access to water has been created. But officials are often surprised when local people have other preferences." (Mehta, 2014). The United Nations Development Program (UNDP, 2006) in Mehta (2014) says "the entitlements approach offers useful insights on water insecurity because it draws attention to the market structures, institutional rules and patterns of service provision that exclude the poor. It also highlights the market structures that result in poor people paying far more for their water than the wealthy." A study conducted in South Africa on the capabilities approach revealed "devices deployed by the state such as pre-paid meters, cut offs and disconnections etc. that not only run contradictory to the constitutional right to water but also create new forms of un-freedoms, poverty and ill-being" (Mehta. 2014). Scholars argue that there are informal mechanisms that can be leveraged on to ensure the right to water. These traditional mechanisms can for instance enhance the achievement of gender equity in exercising of the right to water.

2.3. Water in a Devolved System in Kenya

2.3.1 Tracing Water Management to Devolution

According to the Institute of Economic Affairs, water sources in Kenya can be classified as either surface or ground water. Surface water sources include water pans, rivers and lakes, among others while ground water sources include boreholes and dug wells. National Environment Management Authority projects that Kenya will have a population of 60 million people by 2025, hence more pressure on existing renewable surface water; this worsens the country's status as a water scarce nation. Despite rising water scarcity fears, provision of the commodity has undergone various changes over time in Kenya. According to Hope et al., (2014) during the colonial era, local government was fairly autonomous while after independence, local authorities were weakened in an attempt to recentralize governance through structures such as the provincial administration units (Oloo, 2008) in Hope et al., (2014). Before the 2010 Constitution, service delivery was implemented through local authorities, regional development authorities and sector ministries, among others. Some of the local authorities were boards selected to head various functions such as water, roads, health, etc. (Republic of Kenya, 2008) in Hope et al., (2014).

In 1999, Kenya approved 'The National Policy on Water Resources Management and Development' that reiterated the need for subsidiarity to ensure increased proficiency in the sector (Avidar, 2018). This was followed by the Water Act, 2002, that stood for separation of power in the water sector, and created institutions (eight regional water service boards (WSB) and over 100 water service providers (WSPs), which are independent public water companies). The Water Act of 2002, was criticized by scholars Ombongi et al., (2007), Mumma (2007), Akech (2007) and K'Akumu (2008) in Avidar (2018) for having policies that were difficult to be enforced, for lacking diversity in its strategic plans for the sector and for failing to solve the needs of the countryside poor who have faced harsh water access challenges over the years. The Act was also accused of creating many water institutions with overlapping roles and responsibilities hence ineffectiveness. It was also criticized for lacking structures to ensure water equity. There was also the 2002 National Water Policy that stated the government's role to be supervisory while water provision was delegated to the private sector, municipalities and communities.

This was followed by the 2010 Constitution that devolved various functions including water supply and sanitary provision. As per the 2010 Constitution, county governments should "promote democratic and accountable exercise of power, and foster national unity by recognizing diversity; give powers of self-governance to the people and enhance the participation of the people in the exercise of the powers of the State and in making decisions affecting them" (Nyabuga, 2017). Further, devolution should allow people and societies that they serve to be part of decision making and management of any projects that affect development in their localities.

The water sector despite being devolved to some extent remains shared between the national and county governments because water resources are a national resource but water service delivery is now a county responsibility. According to the Fourth Schedule of the Constitution; Part 1, Section 22 – It is the role of the National government to ensure "Protection of the environment and natural resources with a view to establishing a durable and sustainable system of development, including, in particular— *(a) fishing, hunting and gathering; (b) protection of animals and wildlife; (c) water protection, securing sufficient residual water, hydraulic engineering and the safety of dams; and (d) energy policy.* Part 2 of the Fourth Schedule outlines functions of the county governments whereby Sections 10 and 11 touch on environment and water. Section 10 states that the county

governments are responsible for "implementation of specific national government policies on natural resources and environmental conservation, including— *(a) soil and water conservation; and (b) forestry. Section 11 states that the counties should be in charge of "County public works and services, including— (a) storm water management systems in built-up areas; and (b) water and sanitation services.*

Since promulgation of the 2010 Constitution, the water sector has had other policy documents including the Water Act, 2016 that instructed how devolution was to be realized in the water sector. The Act mandates the county governments and county Water County Executive Committee members (CEC) authority to oversee water supply and distribution through WSPs.

Since water and sanitation is now a devolved function, counties are expected to ensure their budgets cater for recurrent and development costs to ensure enhanced water access within their area of jurisdiction. Thus, they should cater for water supply personnel, operations and maintenance costs, among others. However, scholars note that some counties do not equally acknowledge their responsibility for ensuring the attainment of the right to water for all human beings. The Water and Sanitation Policy (2013) states that the national government's role has shifted to oversight, policy development and support, through providing capital and subsidies.

Further, as water services have gotten closer to the rural people, scholars have argued there is need to understand sub-groupings that may exist in rural areas as this would help ensure the right approaches and policies are put in place to address water access and use challenges that they may be facing. Rural communities according to Agarwal (1981) in Hope et al., (2014) can be classified into three groups: Those who do not have access to water supply throughout the year and thus women and children, especially, have to walk for five to 16 kilometers to access water sources. This group of people is often involved in development of the water sources and their maintenance in case of break-downs. Despite the long walking distances, this group can access the water whenever they need it and safety of the water is not seen as important. The second group has access to water throughout the year. However, this water maybe contaminated according to international standards; this group may be fairly unconcerned with preservation of water sources. For instance, if a village has constant supply of borehole water, once it breaks down, it may be left in a state of

disrepair as the villagers resort to traditional water sources such as rivers. The third group consists of 'the small rural town', where there are often improved water sources including piped water to households or shared buildings. This water source is however likely to be scarce and there is usually demand for improved supplies and availability.

2.3.2: Water in Embu County

According to the Embu County Integrated Development Plan (Embu CIDP, 2019), the county comprises of highlands in the North-west and lowlands in the East and South East areas such as Mbeere South constituency. This brings about two distinct agro-climatic characteristics with the upper zones having cold and wet weather while the lower zones, where Mbeere South area lies, having hot and dry weather. This difference is also portrayed through the average annual rainfall of more than 2200mm to 2500mm in the upper zones to less than 600mm near the Tana River. "Mbeere North and Mbeere South receive less rainfall and have a more scattered settlement pattern compared to Manyatta and Runyenjes sub-counties which receive more rainfall" (Embu CIDP, 2019).

The main rivers that serve Embu county are Thuci, Tana, Kii, Rupingazi, Thiba and Ena. Masinga, Kiambere, Kindaruma and Gitaru dams which are used to generate electricity are also partly situated in Mbeere South constituency. According to Nema (2007) in Embu CIDP (2019), some of the ground water in Mbeere District yields saline water. The quality of water in the shallow wells cannot be ascertained since some are close to pit latrines that serve as source of water pollution while others are unused quarries where run off collects and have high contamination levels.

According to the county government, the number of dams in the entire Mbeere area is 122 and the average distance to nearest potable water point is 4km. Further, a study conducted by PLAN International-Embu showed that 84% of the water source samples obtained from Mbeere area failed to meet the standards of portability as described by WHO. The county government (2019) states that 30.1% of residents fetch water from rivers, 35% from piped water and 21% from dug wells. In Mbeere North and Mbeere South constituencies, 40.4% get water from rivers, 8.2% from piped water, 23.7% from dug wells and 10.9 percent from boreholes. The upper zones of the county

which include Manyatta constituency and Kirimari ward have higher percentages of households with access to clean and improved water sources compared to residents from Mbeere North and Mbeere South sub-counties, who usually struggle to access domestic and agricultural water.

The county CIDP (2019) has pointed out the urgent need to improve the capacity for water treatment in the devolved unit, which currently has one treatment plant managed by the Embu Water and Sanitation Company (EWASCO); the county plans to boost accessibility of clean and safe drinking water and proper sanitation through building of treatment plants, drilling boreholes and expansion of water distribution pipes, among other strategies. Protection of water sources has also been identified as a key means to boosting access given that some water sources that could reduce access time have been rendered un-functional by commercial activities such as sand harvesting activities.

Water access has been linked to socio-economic development and in the county, there are two categories of irrigated farming; private schemes that operate on large-scale basis and small-scale individual schemes. In Embu county, about 1,067 Hectares are under irrigation but the CIDP (2019) projects that about 60,000 Hectares can be put under irrigation but it would require exploitation of all water sources available including groundwater.

The Institute for Economic Affairs (IEA) (2009) outlines the history of water provision and access in Mbeere District (presently sub-divided into Mbeere South and North sub-counties) as follows: The former Mbeere district was created in 1996. Some of the earliest water access projects were implemented in the present Mbeere North area. Mbeere district generally continued to have water access challenges since distribution was conducted based on population pressure thus areas with a lower population were not prioritized. In the 1980s, there was an increase in water projects by donors such as PLAN International. These projects mostly involved drilling of boreholes and building of concrete dams but due to lack of community participation, many became un-functional after the donor's exit (IEA, 2009). The Catholic church also initiated water projects in Mbeere in the 1990s, partly in collaboration with the Ministry of Water. These projects had a higher acceptance rate by the communities and some are still functional to date; with challenges such as strain due to larger populations.

According to IEA (2009), since 2002 when the Constituency Development Fund (CDF) was initiated, various water projects have been implemented in the larger Mbeere area. Further, formation of water boards and water service providers has had a positive impact on water access challenges in Mbeere area. However, the water situation especially in Mbeere South is not as rosy. IEA (2009) remarks that "the notable fact about water resources development in Mbeere District is that the projects distribution is skewed to benefit the central region and areas neighbouring Embu District. As such the Siakago, Ishiara and Nthawa areas (presently in Mbeere North constituency) are relatively better off while other regions have limited water supply. This is because some of the projects utilize the already existing distribution systems making it cost effective." The IEA (2009) argues that the larger Mbeere district has enough water resources that could be harnessed to enhance access and use but the water provision system remains a great challenge "Therefore, ensuring that every part of the district has adequate water supply requires a re-emphasis on the spatial distribution priorities" (IEA, 2009).

Currently, the larger Mbeere area has been split into Mbeere South constituency and Mbeere North constituency. Embu county is now charged with water provision in the sub-counties. The Embu County Water Act, 2015 provides for the provision of equitable, and continuous access to safe, clean water in sufficient quantities. Effective as well as efficient provision of water and sanitation service is also provided for in the Act. The Act further seeks to promote inter-agency collaboration and public participation in water resources development and management. Part 2 of the Act, advocates for communication and data dissemination on water sector issues.

The Act mandates the creation of the Department of Water Services whose roles include: Facilitating public awareness and participation on sustainable water, sanitation and storm water management; appointing of a water service provider; protection of riparian land; regulation of diversion or obstruction of water from common water sources; conservation of water and control of water pollution.

According to the Embu County Integrated Development Plan (2019), the devolved unit was to prioritize provision of adequate water to residents for sustainable development. This was to be

achieved through construction of treatment plants, increasing distribution of treated water and improving water storage capacity, among others.

Table 1 shows Embu county's budget for the Water, Irrigation, Environment and Natural Resources docket as cited from the Office of the Controller of Budget (COB) reports for various years. The table shows that more money was directed to development expenditure and not recurrent expenditure. However, the COB reports constantly cited that there was low absorption rate of the development budget. Further, the 2019/20 Financial Year report so far indicates a sharp decline in development expenditure. This table adds value to the persistent question in this study; if more money is going towards water resources development, the community and the media should continuously be a part of the water access discourse in Mbeere South.

Table 1: Embu County water and sanitation budget and expenditure 2013-2020

Financial year	**Total Budget**	**Recurrent Expenditure**	**Development Expenditure**
2013/14	-	-	-
2014/15	Sh190,410,000	8,760,000	89,690,000
2015/16	Sh115,970,000	64,270,000	79,310,000
2016/17	Sh313,980,000	96,010,000	145,650,000
2017/18	Sh81,860,000	44,570,000	56,300,000
2018/19	Sh84,290,000	51,350,000	57,160,000
2019/20(first 9 months)	Sh75,620,000	34,430,000	17,780,000

Source: Author's summary from Office of the Controller of Budget Consolidated County Budget Implementation Review Reports

According to the Kenya Integrated Household Budget Survey (KIHBS) 2015/16 published in 2018 by the Kenya National Bureau of Statistics (KNBS), 72.6% of households nationally can access improved drinking water sources such as piped water sources, borehole with pump, protected spring, protected well, rainwater and bottled water. This is an improvement from the 58.9 of households in the 2005/6 KIHBS. In rural areas, 61.8% of households have access to improved water sources compared to 86.7% in urban areas (KNBS, 2018).

In Embu County, where Mbeere South constituency is located, only 7.7% of households have access to piped water into dwelling spaces (KNBS, 2018). Some 47.2% have access to piped water into plot or yard. 3.0% have access to piped public water tap/stand, 2.4% have access to tube well or borehole with pump, 2.2% can access a protected well, 0.0% access a protected spring while 2.9% practice rain water collection and 0.5 % can access bottled water. In the county, 67.6% of households spend less than 30 minutes to fetch drinking water while 19.9% spend more than 30 minutes to access drinking water (KNBS, 2018). According to the Water Services Regulatory Board (WASREB) 2019 impact report in (KNBS, 2018), only 57% of inhabitants have access to regulated water services.

In the past 30 years, the government has drilled boreholes, built dams and enhanced distribution systems but access to basic water services is still a key issue among most people in Kenya today (UNESCO, WHO 2019). The low levels of water access in Kenya exist despite the UNESCO right to water that "entitles everyone to sufficient, safe, acceptable and affordable water for personal and domestic use". Ogendi and Ong'oa (2009) have cited lack of community input as one of the reasons why interventions such as developing earth dams and boreholes are not sustainably used.

Research on water issues in Mbeere area include a study by Kiura (1997) who focused on how community involvement helps in ensuring improved water sources are sustainably used. The study by Kiura (1997) found that community members were more interested in water access and quantity more than water quality. Another finding was that more community members did not identify with the improved water sources hence poor maintenance and unsustainability. The study recommended participation of community members in future planning and development of water projects; it particularly mentions need for community mobilization in management of water resources. This study fills the gap left in the Kiura (1997) study, as it seeks to find out how the media is being leveraged to fill the missing link between community participation and water access in Mbeere South. The study by Kiura (1997) also highlights the need for people's socio-cultural change in attitude, in the wake of new water access innovations. This is an intriguing statement that augurs well with the theoretical approach that guided this research. Another study is by Mbogo (2014) on factors influencing water harvesting technologies in Mbeere South.

Jonah (2015) studied how water access impacts livelihoods in Elementaita division, Nakuru county. The findings were that low water access and low water quality affects rural livelihoods, whereby the residents' health and opportunities to meet their daily income needs are compromised. The study recommends the need for water committees to be trained on better management of water sources while community members should be educated/informed on the importance of putting local water management teams to task to ensure availability and sustainability of water sources. Further, "community participation needs to be improved to check on accountability of the assigned persons to take care of the community interest without affecting their lives". The study by Jonah (2015) leaves a gap for further research since it does not indicate how the recommended community participation can be attained. This research seeks to investigate how the media mobilizes stakeholders and communities to address water access and use concerns.

2.4. Media, Water Access and Use

During the last half of the 20th century, there was global increase in development and adoption of Information and Communication Technologies (ICTs). ICTs refer to "technologies that provide access to information through telecommunications. It focuses on the internet, wireless networks, cell phones and other communication mediums" (TechTerms Computer Dictionary). In the past few decades, ICTs have given people new communication capabilities, such as real time communicating, instant messaging and video conferencing. Despite ICTs, where the media can be categorized, being criticized for reinforcing the digital divide, Forestier (2002) in Lesame (2012) argues that there is cross country evidence that links telecommunications provision and economic growth, through reducing information poverty.

The media in general refers to the various means used to communicate. Nwoke (1997) in Haruna and Ibrahim (2018) described the media, as "channels through which message, information, ideas and knowledge are conveyed to people or inculcated into learners". Media is an important tool that can be used to enhance knowledge transfer among people or institutions and convey messages on healthcare, and poverty reduction, among others. It includes; print media (magazines, newspapers, billboards etc.), broadcast media (radio, television and film), and internet media (social media such as Facebook and Twitter, etc. and podcasts). Social media refers to platforms

meant to create and interchange user-generated information. Almost anyone can publish and access information (Scott, 2014).

In this study, the term 'media platforms' refers to selected means of mass communication available in Kenya and likely to be available in the study area, Mbeere South constituency. These are the radio, television, social media in general and the newspaper. Further, in the field study, key informants from the media are drawn for four media outlets selected purposively; Daily Nation newspaper, People Daily newspaper, Weru TV, and Wimwaro FM.

In Africa, the media practice is anchored on protocols and declarations such as The Declaration of Principles of Freedom of Expression and Access to Information in Africa that was agreed upon by the African Commission on Human and Peoples' Rights in 2019. Media practice is also anchored on the Article 9 of the African Charter which gives people "the right to receive information as well as the right to express and disseminate information". In Kenya, Article 34 of the 2010 Constitution is on Freedom of the Media. Article 34 (2): The State shall not;

> (a) exercise control over or interfere with any person engaged in broadcasting, the production or circulation of any publication or the dissemination of information by any medium; or
> (b) penalize any person for any opinion or view or the content of any broadcast, publication or dissemination.

Wilson and Kitty (2007) in Scott (2014), argue that "slow headway in achieving MDGs was highly caused by failure to recognize that open, inclusive, participatory communication and information processes are prerequisites for successful and sustainable development." Media can be used to deliver important development-related information to the public. Scott (2014) adds that the media can be the tool that is used to boost involvement of people in development discourses and can deliver "positive change in individuals' knowledge, attitude and practice in order to achieve development results".

Media in its entirety enhances:

a. Information provision: Media is usually seen as most effective way of delivering

information because it reaches more people and;

b. Cultivate appropriate attitudes, which are key determinants of development. It can challenge traditional norms and values.

The agenda-setting role of the media has also been cited by many scholars, who argue that issues such as awareness of environment problems is as high as the history of its dissemination in the media. The media can thus be seen as a springboard that turns an issue such as water access and use challenges into an item of public concern, thus prompting action, including policy, to address the problem. It is when people are aware of the water challenges in their environment that they can rally together to demand action on the same. According to Louw (2005) in Nyabuga (2017), the media is expected to play three critical roles in liberal democracies; to criticize politicians when need be; to lead the fight for attainment of citizen rights against the abuse of state power; and to give the public a platform for debate. The media in Kenya has however been criticized of failing to perform these functions and offering limited or little space for ordinary citizens to express popular will and public opinion owing to increasing commercialization and elite and political control of the media.

Nyabuga (2017) argues that given the great reach and impact of the media, if it is utilized effectively it can result in an informed citizenry capable of "not only engaging the leadership in meaningful discourse but holding them to account on the basis that information gives them the knowledge upon which their 'rational' arguments and opinions are based." Through providing information to the masses, the media helps set and build agenda, mobilize the public (and public opinion) for various causes, and provide the platform for the articulation, aggregation and formation of public opinion even on development issues such as water access and use.

According to Wasil et al., (2019) the field of media practice is continuing to widen due to increasing uptake of ICTs. More countries in Africa are also enjoying significant media freedoms and liberation policies leading to increase in variety of media platforms available to users including state-owned and independent newspapers, radio, television and social media outlets. Wasil et al., (2019) argue that the rising media linearization has led to its performing a key role in battling corrupt practices in African countries; whereby the media distributes information regarding the

vice to the public hence enabling them to hold responsible those in leadership positions. A 2018 study on the role of the media in fighting corruption found that "2% of foreign bribery cases resulted from previous media reports on alleged corruption, which makes media reporting the most important source for public awareness and a paramount source of detection of corruption" (Chêne, 2019) in Wasil (2019).

As the overall media use in African countries rises, Oginni and Moitui (2015) state that "social media has emerged as a fundamental game changer in that it connects governments, citizens, and their ideas across the most complex of geographical divides." Social media gives people an opportunity to gather real-time insight. In recent times, citizens' engagement in policy process – which includes development issues such as water access and use challenges - has been recognized world over. At the United Nations Conference on Sustainable Development, the General Assembly Resolution 288 of 2012 entitled The Future We Want, states in paragraph 13: "We recognize that opportunities for the people to influence their lives and future, participate in decision-making and voice their concerns are fundamental for sustainable development" (UN Economic and Social Council, 2012), in Oginni and Moitui (2015). To strengthen the resolution on civic engagement, the 51st Session of the United Nations on Social Development concluded that: "the empowerment and participation of all members of society in social, economic and political life is critical to achieving sustainable development" (UN Economic and Social Council, 2013). This stamps the need for governments and citizens to utilize instantaneous mediums during civic engagement so as to boost the chances of efficient pro-people policy implementation and feedbacks.

Leavey (2013) in Oginni and Moitui (2015) defines social media, whose use has continued to grow as a tool for development advocacy, as a "social structure made of nodes comprised of individuals or organizations tied by one or more specific types of interdependencies, such as values, ideas, financial exchange, friendship, kinship, dislike, conflict, or trade." Social media enables people who share similar value systems, visions, and aspirations to come together and express their opinions on issues of concerns. According to Oginni and Moitui (2015), within Africa, social media practices have led to revolutions (Egypt, Tunisia and Libya), strengthened and monitored best practice during elections (Nigeria, Ghana, Bostwana and Zambia).

Further, in the African continent where the public policy processes is largely conservative with little or no input from communities that will be directly affected by the policies, social media can be the tool that bridges this gap to allow participation of the masses in the public policy process. Studies on public policy process in Africa reveal that there exists "social dichotomy between policymakers and citizens, inadequate information, politicization of policy implementation, and weakened feedback mechanisms that are responsible for the formulation of unrealistic policies in the continent (Imurana, 2014)". Therefore, Social media has emerged as a crucial game changer that can address the weaknesses of traditional public policy process by linking governments or policymakers directly to citizens. Smith (2003) in Oginni and Moitui (2015) argues that citizen engagement must be at play to achieve policies that are expected to have a major impact on them. "Engagement of citizens during the policy process provides an opportunity to address conflict with values or difficult policy choices, and investigate emerging issues that need considerable learning to reach consensus by reconciling competing interests. Social media provides a platform for common citizens' inputs, in the form of opinions or in some cases expert opinions, during policy negotiation processes" (Oginni and Moitui, 2015). When the public policy process is inclusive, there's bound to be better feedback mechanisms, policy outcomes and effective implementation. Social media promotes a consultative policy process.

This study focuses on use of media community mobilization to influence water access and use in Mbeere South constituency hence is closely linked to development communication. According to Wilkins (2007), development communication is when communication is utilized strategically to bring about alleviation of social problems in societies. For development communication to take place, its spear-headers must explicitly purpose to achieve a socially benefiting outcome and often must conduct baseline studies to identify the social problem for which they will create targeted communication about. Development communication is linked to needs that emerged after the world war II and partly ushered in use of participatory development. This study, however, explores how use of media platforms may influence development outcomes in water access and use, and views the media as being capable of supporting development even when its use in communication is not highly targeted as portrayed in the development communication model.

Researchers who have studied media effects on water issues include: Caycedo (2018), who has reviewed studies on how mass media can influence public awareness and behavior change in regard to climate change and water use. The author however, notes that there is little research conducted on whether the media can influence demand for water. The author concludes that the study exposes the potential for exploring how media can influence various water concerns and that "it would be interesting to analyze how social media and user interactions might influence water demand".

A study by Monstadt et al, (2019) focused on how the Nairobi City Water and Sewerage Company (NCWSC) could use digital technologies to improve water access to the low and average income area of Soweto, in Nairobi. The study found a disconnect between the project's expectations and the community's reaction to the digital system, meant to enhance their access to water. There was persistent distrust between the consumers and the suppliers of the digital system. The concept of digital technologies is not well defined in the text, however, it alludes to mobile applications that include communication technologies.

Monstadt et al., (2019) focused on urban water access challenges and argue that according to Hope et al, (2011), key barriers to accessing water services, such as delayed reconciliation of billing systems, limited customer awareness, and lack of physical proof of payment could be overcome through the adoption of digitally enhanced water payments. In the study, the scholars conclude that the model was not successful and eventually went from "*jisomee Mita*[1]" to "show me your meter". The study used key informants and in-home oral interviews to collect data two months before and after the Jisomee Mita project. The study by Monstadt et al., (2019) study touches on aspects of community engagement and participation in water management.

The study by Monstadt et al., (2019) can be linked to studies on what makes community participation in water projects effective. Warner (1990) in Nyabuga (2017) defines community as a "group of people living in a geographically defined area or a group of people with common economic or political interest." Community management is sometimes used interchangeably with community participation to refer to community involvement in a development project and

[1] *Jisomee Mita* is Swahili for 'read your own meter'

according to Warner (1990) in Nyabuga (2017) community management entails: Responsibility- whereby community members take up ownership of and attendant obligation to a project; Authority: whereby society members can make decisions regarding the water sources and supply; and finally Control: whereby the community involved can evaluate and decide the way forward following their management outcomes. When community members have authority, responsibility and control over a water project, it is more likely to be sustainable. Because they will be responsible for establishing the water needs of the community and expected outcome and benefits of the project. The community must be empowered in making decisions that pertain to their socio-economic welfare. This is helpful for this research and would serve to compare if digital technologies- in this case media- can be used to advance awareness and participation of stakeholders to ensure enhanced water access and use in rural areas such as Mbeere South constituency.

Santos et al., (2017) researched on how a rapidly increasing urban population in Sub-Saharan Africa has led to unmet demand for water. He says that by 2050, the number of people living in urban areas that face a perennial water shortage will increase from 24 million in 2000 to 162 million by 2050. Further, he argues that most state-centered approaches of water provision have failed to fulfill the demand from poor urban areas, peri-urban areas and rural areas. He says community-based models that include participation, would increase sustainability and ownership of water projects hence improve access. He cites a study by Adams and Zulu (2015) on the drivers of poor water access in urban informal and peri-urban settlements in Lilongwe, Malawi, which reveals there is potential for decentralized, community-based water governance approaches to address growing drinking water demand in urban and peri-urban settlements of least developed countries. The study by Zulu (2015) recommended that water access and management models should be flexible and "allow plurality of forms of participation while simultaneously seeking creative ways to enhance participation and broaden social benefits". Both Santos' and the cited Zulu (2015) research do not detail the methodology used. Their focus is also on urban and peri-urban areas. However, their recommendation that public participation could enhance water access and sustainability of water projects is relevant to this study and it would be interesting to investigate if media is the tool that can push for the said community participation and the effects of this in rural areas, such as Mbeere South.

A study by Alexander, et al., (2019) investigates the link between water, sanitation and hygiene (WASH) knowledge and access to different forms of media, such as television, radio, and mobile phones. The study found that "media access is associated with WASH knowledge among caregivers in resource-poor settings". The study by Alexander et al., (2019) was largely investigating the influence of mass media on health intervention, and can be replicated to fit this study that attempts to link media community mobilization and water access.

Eze (2014) has studied media advocacy for sustainable water management in Africa; the case of Nigeria. The study showed there was negligible media advocacy on water issues and focused on urban areas. These studies offer a chance for comparison of results, given that this research is also assessing influence of media engagement on water access and use in Mbeere South constituency, which is a rural area. Rashmi (2011) has studied coverage of water-related issues by print media in India. His findings showed that "the call for development is ongoing but efforts are at halt", that is, print coverage had no effect on development in the sector.

Quesnel and Ajami (2017) argue that that mass media influences public awareness, community perceptions and social attitudes. They conclude in their study that public awareness and education plays a key role in water use behavior. Their findings are relevant to this study which seeks to find out if interaction between the media and stakeholders in Mbeere South has resulted in any changes in water access and use.

2.5 Theoretical Literature Review

This study seeks to investigate how the media enables stakeholders to participate in addressing water access and use issues in Mbeere South. The study uses the institutional and cultural theory which exposes the different perceptions of stakeholders that might be at play when addressing water access issues in Mbeere South.

Most times, decisions on sustainable development are made at global and national levels. This is despite the fact that the outcomes of such decisions affect households the most and often directly.

There exist local preferences which may not conform to the set institutional boundaries; hence the discourse on how culture may influence the management of natural resources. Cleaver (2012), extends the work of North (1970, 1994) in Koehler et al., (2018) by arguing that it is not likely that only one institution will represent the needs and interests of all users, hence need for institutional pluralism. North (1991) defines institutions as "humanly devised constraints that structure political, economic and social interaction". Institutions can be formal or informal and can be used to provide information and regulate behavior. Failure and poor performance of community participation in management of natural resources and common resources has been linked to shortcomings in institutional designs, among others (Whittinton et al., 2008, Sara and Katz, 2010) in Koehler et al., (2018).

In rural water management, there are different groups of people, with different worldviews. These are: community world view; individualistic world view; bureaucratic worldview; and pluralistic institutions. In the community worldview, there is an egalitarian view (Rayner,1991; Douglas, 1999) in Koehler et al. (2018), where there is a communal risk-sharing approach. Koehler et al., (2018) says this implies that risks are shared among all users of the water sources, for example, where there is possibility of water scarcity perhaps owing to extended drought seasons, water use is then often regulated through rationing; where there is a high monetary risk brought about by repair costs of water sources such as boreholes, the risk is also distributed evenly among the users of the resource (Carter et al., 2010) in Koehler et al., (2018). This is the most common approach to water point management in sub-Saharan Africa. The concept of community management has, however, been criticized for not being an effective and apolitical tool in natural-resource management across Africa (Cleaver, 1991; Blaikie, 2006; Hope, 2015) in Koehler et al., (2018).

The individualistic worldview applies in cases of privately managed water points. Risks are fully borne by the owner of the water point, and water from such sources could be sold for varying prices depending on supply. The bureaucratic worldview, according to cultural theory, stands for "institutionalized authority" (Wildavsky, 1987) in Koehler et al., (2018) and it works through having regulations and processes that control the everyday use of the water resources available (O'Riordan and Jordan, 1999) in (Koehler et al., 2018). In this case, rules and procedures determine how risks are to be dealt with. In the bureaucratic worldview, the rules and processes in place are

exercised through available institutions such as schools, clinics and religious centers. For instance, a religious institution that has water collection and storage tanks may make the water available to the community on condition that each household can only fetch two jerricans a day.

Fatalist worldview can be stoic or opportunistic behavior. In the former, one resigns to fate of broken down water systems and waits upon external actors to restore the water points or systems. "Such management failure could emerge from a lack of economic power or intra-household inequalities, often with a gendered dimension, as women and children are forced to act as water collectors and thus a no-cost alternative is accepted, discounting health and time for money" (Koehler et al., 2018). Opportunists choose to not be part of efforts to bring change and are free riders that wait on other community members to work to restore such resources. There can, however, be hybrid cultures, that use two or more of the above world views in water management.

Pluralistic institutions is when the four types of cultures discussed can coexist and be used in problem identification and solving. However, coming up with a solution acceptable by all the cultures may prove difficult but "such solutions have been applied to a variety of complex settings including water-related challenges such as hydropower in the Himalayas (Gyawali, 2006), water resources management in California (Lachet al., 2006), as well as tackling climate change (Verweij et al., 2006)" (Koehler et al., 2018).

The main components of operationalizing such pluralist institutions would include: Using the services of professionals; Improving the flow of information among participants so as to effectively manage water points, and; Ensuring financial sustainability through sharing financial risks; this can be enhanced by creating incentives for user payments and thus lowering costs of bureaucratic targets.

Use of pluralistic institutions to manage water points has, however, been criticized for being fundamentally unproductive but Koehler et al., (2018) argues that the "limited sustainability of rural water systems in Africa reflects the fragile balance that must be maintained in linking and moderating the cultural variations of risks and values."

The pluralistic institutions view is echoed by Young (2010) in Koehler et al., (2018), who addresses the issue of institutional dynamics. The author argues that the more institutions stay in place, the

more brittle and crisis-prone they become. The author adds that this provides an opportunity for adjustments, which can be done through considering the resilience, vulnerability and adaptation capabilities of the institutions in question.

In advocating for pluralistic institutions, the media is seen as one of the institutions that can be part of the various discourses on rural development, including water access and use. (Thompson et al., 2001) in Koehler et al., (2018) advocate for partnerships between the State, private sector and civil society. The media can be part of this partnership because it can play the role of simplification and standardization of various institutional forms. As an institution, the media can be leveraged to give a structure to everyday life thus reducing life uncertainties and improving the chances of success in management of rural resources.

According to North et al., (1998) in Koehler et al., (2018) human needs and wants are generated, articulated, and satisfied or dismissed in an institutionalized feedback system. Considerations such as trust, liability and consent however determine how people will respond to and accept risks. Therefore, rigid institutional structures with pre-determined value systems may not be well suited to deal with such a variation of risks. "Instead, a feedback loop between values, risks and institutions is required to account for changing risks and new opportunities to be integrated into the institutional response. This applies to the response to water management challenges at all levels." (Koehler et al., 2018)

This theory is significant to this study as it gives a deeper understanding of the systems and perceptions that may be at work in the management of water points (sources), which directly has an implication on access and use. It raises the question of how to integrate all the cultures found in the society and this study seeks to find out how the media as an institution is facilitating or not, the interaction of different actors to address water access and use issues in Mbeere South.

Koehler et al., (2018) says this approach (cultural theory and pluralistic institutions) makes the case for more integrated solutions in areas where current policy separates communities from the state or markets. The approach has been tested in Coastal areas of Kenya including Kwale, and it would be interesting to apply it to other areas that face water scarcity such as Mbeere South. Further, the pluralistic institutions model of rural water management – which advocates for use of

multiple worldviews to ensure sustainability of water points in rural areas - relates to the social impact model developed by Latane (1981) who argues that when the number of people advocating and pushing for a particular cause, such as enhanced water access and use, increases, the impact on targeted individuals' attitude and behavior increases. The author gives an example of social media marketing, whereby the more the number of people who share a certain marketing campaign, the more the impact on targeted users increases (Imran and Zaheer, 2012).

2.6. Summary of Literature Review

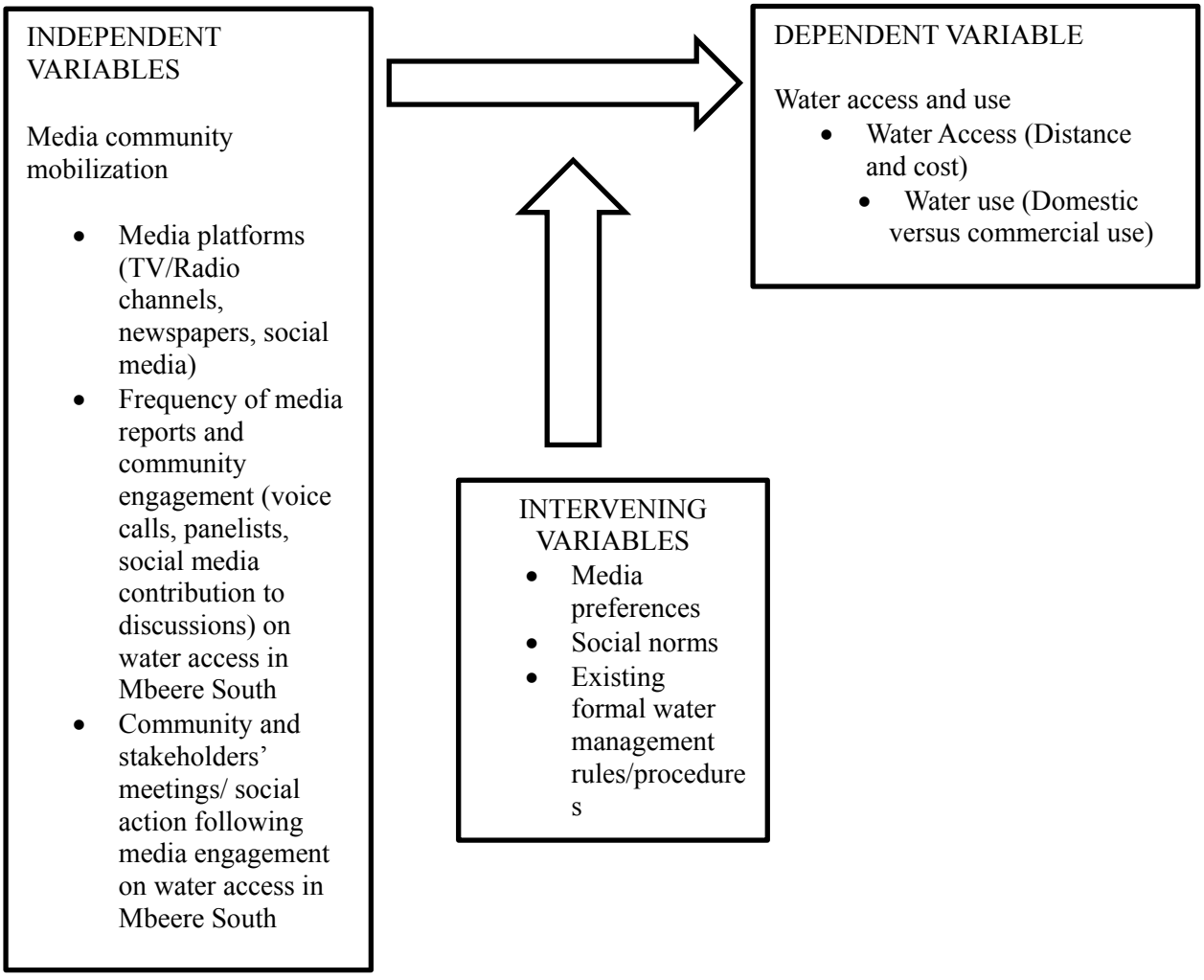
From the literature reviewed, it is evident that water access issues have been widely researched on, especially in Sub-Saharan Africa. Most of the studies, however, focus on urban and peri-urban low-income areas, where water provision remains especially low despite high population. While many studies recommend incorporation of public participation in addressing water concerns, and the need for flexibility in institutions that surround rural water access, only a few have focused on how the media could be leveraged to bring about the needed community awareness and action on water access and use issues. Further, only a few studies focus on rural areas. This study seeks to fill the gap in previous studies by questioning if the media drives stakeholders and community members in Mbeere South towards addressing their water access and use issues.

2.7. Conceptual Framework

The conceptual framework shows the various variables that were studied by the researcher. It is a visual representation of the relations that need to be investigated in this study. The dependent variable in this study is water access and use while the independent variable is media community mobilization. The researcher seeks to assess how media community mobilization influences water access (distance to water point, water quality, cost) and use (domestic water use versus agricultural use) in Mbeere South constituency, Embu county. Media community mobilization in this study refers to how the media initiates, directs and sustains conversations with water stakeholders in Mbeere South, and in turn the researcher seeks to assess if that engagement leads to enhanced water access and change in water use.

The intervening variables in this study are: media preferences, social norms and existing formal rules/procedures. Media preferences such as failure to listen/ watch / read local media content may make respondents unable to give the answers the researcher seeks. Existing social norms and formal rules may determine the level of media use and participation in water access matters, respectively.

Figure 1: Conceptual framework



Source: Author's own compilation

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section describes how this study was conducted. It includes the study design, study site, data sources and data collection, population and sampling, and how the data was analyzed.

3.2 Study Site

The research was conducted in Mbeere South constituency in Embu county. The county covers a land area of 2,821km^2 with a population of 608,599 according to the 2019 population census. Mbeere South constituency has a population of 163,476 – the highest among the six sub-counties in Embu. Further, Mbeere South lies on the lower side of the county that experiences less rainfall compared to upper parts of Embu that are closer to Mt Kenya Forest. This makes water access concerns prevalent in the constituency. Further, little research has been conducted in the constituency and this makes the area ideal. The study site is also predominantly a rural area, which is of interest as many studies on water issues have focused on low-and-middle-income urban and peri-urban areas. Mbeere South constituency has five wards namely: Mwea, Makima, Mbeti South, Mavuria and Kiambere.

Further, the 2018 Kenya Integrated Budget Household Survey data shows that Embu County as a whole has a high ICTs usage, with television having usage of 68.4%, radio 93.1%, mobile phone 73.4%, computer 7.8% and internet 12.4%. According to the same study, the population of Embu county residents aged 3 and above who use ICTs stands at 525,000. This means that a study touching on media engagement in the area is viable.

3.3 Study Design

This study used descriptive research design which aims at "description of the state of affairs as it exists at present" (Kothari, 2003). The descriptive research design helped to answer the questions of 'who, what, when, where and how' that are associated with the research questions of this study.

3.4 Target Population and Sampling

The target population for this study was the community members in Mbeere South constituency. Using purposive sampling, this study focused on Kiambere ward and Mavuria ward. From desk research conducted, Kiambere ward is home to Kiambere dam, one of the seven forks dams yet water scarcity has continued to be a key concern among residents. Mavuria ward on the other hand hosts the headquarters of the constituency (Kiritiri).

The researcher conducted a survey of 50 households in Kiambere ward and 50 households in Mavuria ward. The total sample was 100 individual respondents from Mbeere South constituency. This is because of the areas' sparse population and the time and resources available for research. The researcher used purposive sampling to select the sub-locations. In Mavuria ward, the sub-locations selected are Mavuria and Kombo Munyiri sub-location. In Kiambere ward, the sub-locations sampled are Kiambere and Ntharawe sub-location. Villages were selected using simple random sampling from the sub-locations and the starting point for the researcher were primary schools where available or churches. Individual respondents were selected using systematic sampling. The researcher chose a walk pattern and selected every 5th household after the first one.

The researcher also obtained data from representatives of mainstream media platforms on how they engage stakeholders on water issues in Mbeere South constituency. These platforms include Wimwaro FM, which broadcasts in Embu/Mbeere dialect, Weru TV (Meru dialect), and two print media platforms, Daily Nation and People Daily newspaper. The Nation newspaper has been selected because it has been in operation since 1959 and according to GeoPoll, it is the top newspaper in the country in terms of audience size and share. People Daily has been selected because it is a free newspaper circulated across the country is also freely accessible using online platforms. The respondents were the Head of News (or their representatives) for each of the selected media platforms.

The key informants were selected purposively. They included chiefs in the two wards; representatives of Embu Water CEC and EWASCO. These are relevant because they hold positions in society or relevant institutions and can provide valuable information related to the study. Focus

group discussions (FGDs) included 7 residents in each ward. They were chosen using purposive sampling after building a rapport with the study area residents and community leaders. Age and education variables were taken into consideration when selecting FGDs participants. The participants were also residents of various villages within the wards to ensure representativeness. In-person interviews strictly adhered to the Ministry of Health guidelines to avert Covid-19; this included use of face masks, social distancing and frequent use of sanitizers.

3.5 Data Sources and Collection

Data sources for this study were residents of Mavuria ward and Kiambere ward in Mbeere South. Data was collected using various instruments. A household survey was used to answer questions of what sources of water are available in the study areas and what media platforms are available to them. Key informants, including chiefs in the study areas, Embu County Water CEC, Embu Water and Sewerage Company (EWASCO) communication representative and the selected media platforms' representatives were engaged to answer questions of any engagement with media platforms in the context of water access and any effects of such engagements. Focus group discussions (FGDs) were also used to discuss the issue of media engagement on water access and use in the area. Media informants helped answer the third research question on how they engage stakeholders on water access and use issues in Mbeere South.

3.6 Ethical Considerations

The appropriate approvals were sought form the relevant institutions. First a letter confirming that the researcher is a student was sought from the Institute for Development Studies, University of Nairobi. This was complemented by a research permit from the National Commission for Science, Technology and Innovation (NACOSTI).

During the field research, which took place in two weeks, local authorities such as the local chief and Nyumba Kumi Representatives were informed of the researcher's visit and study objectives. Informed consent- both oral and written- was also sought from all respondents by informing them of the research objectives. The respondents were also informed of expected benefits and risks

involved in the study. They were assured of confidentiality and identity anonymity. The respondents were also given an opportunity to ask questions pertaining to the study before the interviews.

3.7 Data Analysis

Data collected in this study was both qualitative and quantitative in nature. The quantitative data collected from structured interviews was analyzed using SPSS tools and presented using charts and tables. Descriptive studies allowed the researcher to find out the sources of water available to stakeholders in the study site and the types of media platforms that direct the conversations on water access in the study site.

Qualitative data collected from FDGs and key informants was coded and analyzed. This process involved developing codes for the information that was collected. After coding, the researcher identified themes and patterns that suggest relationships between the variables. The final step in analyzing the qualitative data was summarizing the data to link the research findings to the research objectives.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1. Introduction

This chapter presents the findings of research conducted to explore the role of media community mobilization in water access and use in Mbeere South constituency. The chapter also includes discussion of the findings. The findings focus on: the available sources of water in the study area; what media platforms are available to the people in the study area and how often they use the platforms; how the available media platforms articulate water access issues in the study area; and the influence of media-community articulation of water issues on access and use in the study area**.**

4.2. Characteristics of Respondents

The total number of respondents for semi-structured questionnaires was 100 and all the selected individuals responded to the questionnaire. Their background characteristics included gender, occupation, marital status and level of education. Analysis of respondents' demographics per ward showed that in Kiambere ward, most respondents were male at a frequency of 33 and females (17). Respondents who were married were 30 and those who were single were 20. The occupation of respondents varied, with a majority (15) involved in business activities, farming (12), student (9), teacher/nurse (4) and 'other' occupation (10). 'Other' occupation was coined up by the researcher to represent occupations mentioned by one respondent each, such as lab technician and accountant. The highest level of education of the respondents in Kiambere ward was: secondary (14), college (14), primary (12), university (6), post-graduate (3) and no formal education (1).

In Mavuria ward, most respondents were female at a frequency of 30 while males were 20. Thirty (30) respondents were married, (19) were single and (1) was widowed. On occupation, those in business were (18), farming (12), student (7), teacher/nurse (5) and 'other' occupation (8). 'Other' occupation in this ward included masonry, tailoring and ICT. Respondents' highest level of education was: College (18), secondary (15), primary (12), university (4) and post-graduate (1). Table 2 presents the distribution of the survey respondents by gender while Table 3 shows the

distribution of the survey sample by occupation and marital status.

Table 2: Gender of individual-respondents

Gender	**Frequency**	**Percent**
Male	53	53
Female	47	47
Total	100	100

Source: Field study, 2020

The respondents had varying occupations and marital status as shown in the cross table 3:

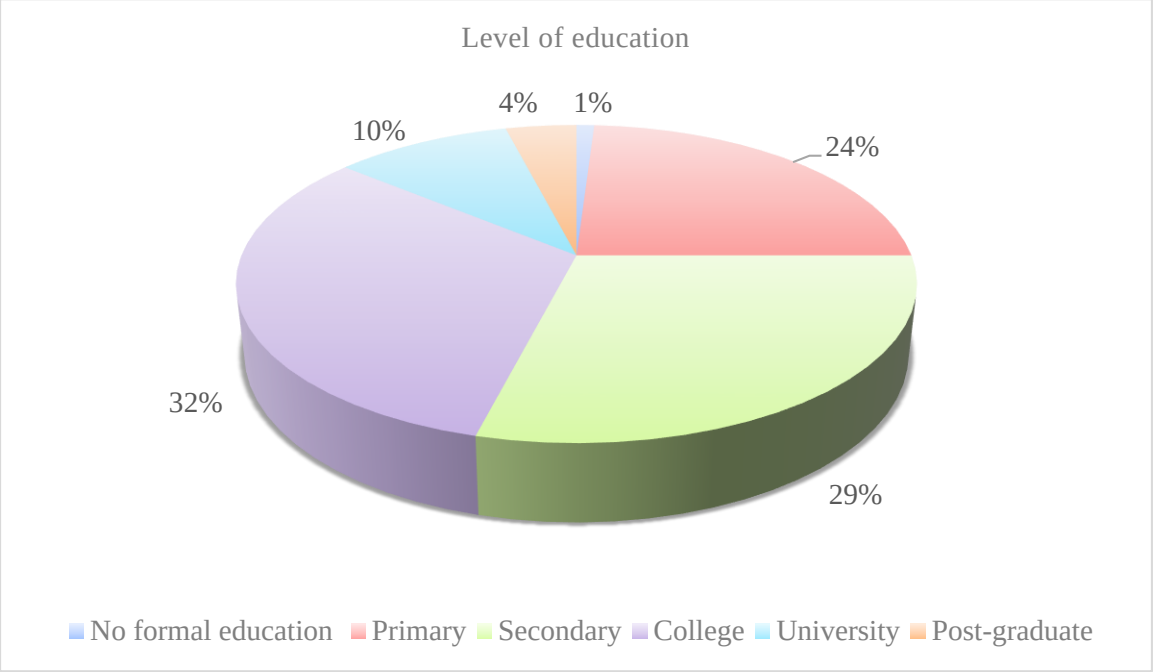
Table 3: Occupation and marital status of respondents

Occupation	**Marital Status (Frequency)**			
	Married	Single	Widowed	Total
Farmer	17	7	0	24
Business	21	12	0	33
Teacher/Nurse	8	1	0	9
Student	0	16	0	16
Other	14	3	1	18
Total	60	39	1	100

Source: Field study, 2020

The overall respondents' level of education is as shown in Figure 2, and a majority of respondents have attained college level of education.

Figure 2: Respondents' level of education



Source: Field survey, 2020

The characteristics of the respondents were important to the study. For instance, occupation of respondents which has an implication on their socio-economic status, influenced responses on water sources available to their households and knowledge of media engagement on water issues. For example, some respondents in formal employment had more access to stored rainwater or ability to source water from bowsers, thus influencing responses on time spent to access water.

4.3 Water Sources Available to Residents

The sources of water available to residents is dependent on various factors such as the season and the family financial status. At the time of conducting the field research, Mbeere South constituency was experiencing extremely hot and dry weather, as it was just before the onset of the rainy season. This means that water resources were quite stretched during the time of study. Even households that have large storage tanks were struggling as the stored water was depleted or almost depleted; prompting owners to spare it for drinking purposes only. Those who are connected to piped water in Mbeere South constituency, said that when the dry season sets in, water is highly rationed and

taps run dry for months. Many respondents picked up to three sources, with the explanation that when the rainy season starts, they use stored rain water and when that is over, they move to the nearest streams, seasonal rivers and wells but as the dry season sets in; they have to source water from other sources such as dams and boreholes.

Table 4 shows a representation of the water sources available to residents in Mavuria ward and time spent to access the water sources. A majority of respondents in the ward have access to boreholes, while wells are the least available water source. Respondents specified 'other' sources of water as dams. Most respondents in the ward spent one hour to access water sources. This supports the argument in the study that water scarcity is prevalent in Mbeere South constituency.

Table 4: Water sources available to Mavuria ward respondents

Type of water source	**Time Spent (Frequency)**			
	Less Than 30 Minutes	One Hour	More Than One Hour	Total
River	2	6	4	12
Well	2	4	2	8
Borehole	8	6	2	16
Rainwater	3	5	2	10
Piped water	5	2	4	11
Other	1	7	5	13
Total	**14**	**21**	**15**	**50**

Source: Field study, 2020

In Kiambere ward, the severity of water scarcity is higher than in Mavuria ward. This is attributed to increased distance from EWASCO headquarters hence lesser connection to piped water. Table 5 shows a cross tabulation of water sources available to respondents in Kiambere ward and the cost of the water available to them. None of the respondents had access to piped water and boreholes were the main source of water for respondents. Respondents that picked 'other' sources of water available to them described the same as water from dams or buying from water bowsers. Most respondents did not pay money to access water but instead described the situation as paying

with their time.

Table 5: Water sources available in Kiambere ward and cost

Water sources available	**Cost of water (Frequency)**				
	None	Ksh1-10 per 20 liter jerrican	More than Ksh10 per 20 liter jerrican	Other	Total
River	6	0	2	0	8
Well	4	2	0	3	9
Borehole	4	10	5	5	24
Rainwater	2	1	1	1	5
Piped water	0	0	0	0	0
Other	14	0	1	2	17
Total	24	11	8	7	50

Source: Field study, 2020

The average time spent to access water in Kiambere ward was higher than in Mavuria ward; with most respondents spending more than one hour to access water from dams. This is aptly captured by one of the key informants:

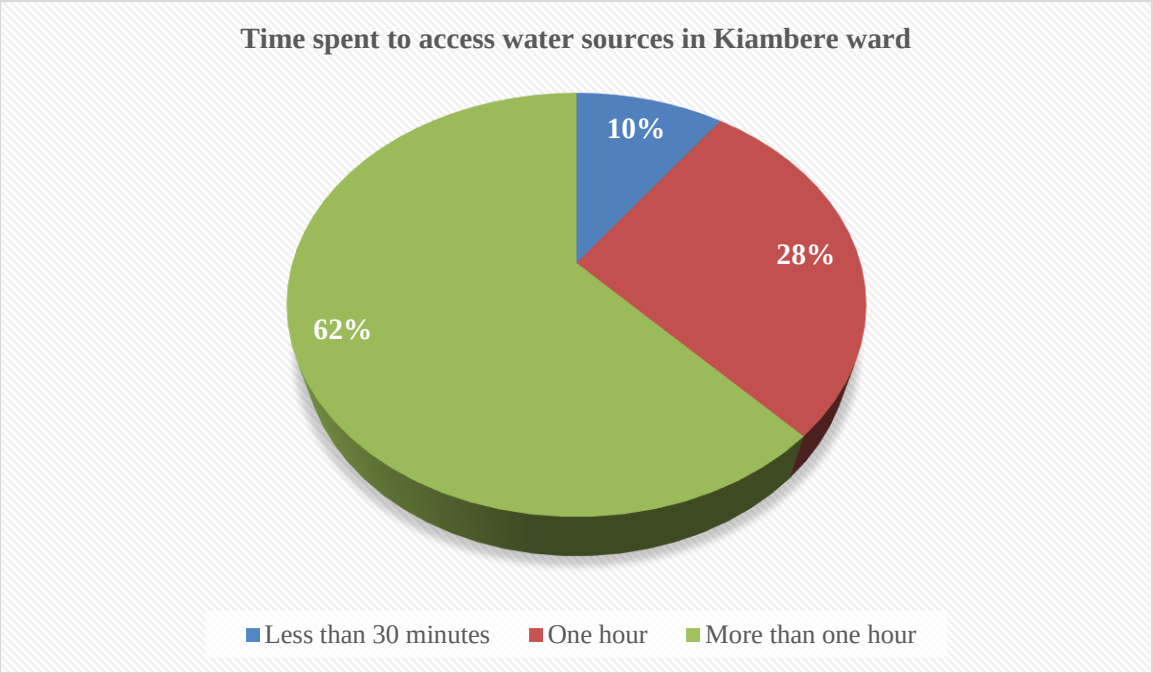
> *We wake up as early as 3 a.m. to go and fetch water from Kiambere dam. We use donkeys to do the job and one donkey can only carry a maximum of five 20-litre jerricans, so you can imagine what that means for a large family. If you have only one donkey, that water should be used for at least 2 days because you cannot go to the dam every day. It is a tiresome journey that can even take up to 4 hours to get back home. When we go to the dam at 3 a.m. or 4 a.m. our families don't even include us in breakfast plans because you may not even come back because of crocodile attacks. If you come back home safe, that is when they will prepare breakfast for you. (Key Informant, Mbeere South constituency).*

Another respondent related the time spent to access water with functionality of water sources available.

Even if there is a borehole near your household, you are not guaranteed that it is functional all the time. So you may end up going to different areas in search of water; you start at the borehole and if it is not functional or if there are long queues, one may choose to try other water points which may not be close by. (Key Informant, Mbeere South constituency).

Figure 3 shows the time spent by respondents to access water in Kiambere ward. Some 62% of respondents spend more than one hour to access water sources.

Figure 3: Time spent to access water sources in Kiambere ward



Source: Field study, 2020

In Mavuria ward, respondents' perception of the water quality was highly subjective and depends with the water sources available, season and management of the water source. Where use of common water sources such as dams is not controlled, animals can access the water freely hence perceptions of the water being smelly due to animal waste. With a majority of respondents having access to borehole water, they described it as clean but salty. One informant said the quality of the water was also dependent on the season.

The water from EWASCO is clean but very few people get it. Water from the boreholes is clean but salty while water from the other sources depends on the season. Immediately after it rains, water in dams and wells gets soily because dirt flows into it. Animals like donkeys and cows drink water from the dams because many are not fenced so their waste mixes with the water; but that is the water we have known all our lives so we say it is clean because we drink it and cook with it. (Key Informant, Mbeere South constituency).

Respondents in Kiambere ward described the water quality from boreholes as clean but salty. Water from rivers, dams and wells is unclean or dirty. Those who describe the water as clean explain their answer in that they have no alternative and that is the water they drink hence 'call it clean'. The water from rivers, wells and dams is also described as dirty since its use is not controlled and animals can also freely access the water hence the water is often mixed with animal waste. In some villages that mostly rely on water from dams, the water is also described as smelly and unclear, depending with the season. Residents with exclusive access to rainwater, described their water as clean.

Most respondents in Mavuria ward used the water available to them on domestic purposes (78.3%), 20% on agricultural purposes while 1.7% used the water available to them for 'other' purposes, mostly use in small businesses such as salons. Water use is dependent on the availability of the commodity, consequently 92.6% of respondents in Kiambere ward spent the water available to them on domestic purposes while 7.4% used the water the agricultural purposes. None of the respondents had 'other' uses for water available to them.

Separate ward analysis of water sources, time taken and use showed that the most common water sources are dams and boreholes. In Mavuria, many respondents spent one hour to access water while in Kiambere ward, most respondents spent more than one hour to access water. Water in both wards is mostly used for domestic purposes. Table 6 shows cross tabulation of time taken to access water and the cost in both wards, where the number of respondents was 100. 'Other' costs of water are associated with maintenance of the water sources such as boreholes, monthly payment to EWASCO for piped water with some respondents paying up to Ksh3,500 monthly and buying water from bowsers at about Ksh 3,500 each trip.

Table 6: Time taken to access water and the cost of water in Mbeere South

Time taken to access water in Mbeere South	**Cost of water in Mbeere South**				
	None	Ksh 1-10 per 20-liter jerrican	More than Ksh 10 per 20-liter jerrican	Other	**Total**
Less than 30 minutes	8	5	3	3	**19**
One hour	16	11	6	2	**35**
More than one hour	24	1	12	9	**46**
Total	**48**	**17**	**21**	**14**	**100**

Source: Field study, 2020

Analysis of available water sources in the entire study area showed that boreholes were the most common at 30.1%, other water sources (dams and bowsers) at 22.6%, rivers at 15%, wells at 12.8%, rainwater (11.3%) and piped water at 8.3%.

The water sources available to residents are mostly managed by the community members (51%). This was followed by KenGen (12%), committees (11%), county council (8%), EWASCO (7%), and individuals (4%), among others. The high percentage of water sources being managed by community members could be attributed to social linkages among residents.

> *We know everyone who lives in our village and therefore anyone can access the water sources such as dug wells and also maintain them. For instance, if you find part of the well has collapsed into the water, you just scoop the sand out and fetch water. Next time someone else will do it and life goes on. If you fetch water from rivers there is really no way to manage it, just following traditions like there are sections for washing clothes downstream and for fetching water in upstream sections. All community members follow such unwritten*

rules and everything moves on well. (Key informant interview, Mbeere South constituency).

The findings on water source management confirm the argument in Koehler et al., (2018) institutional and cultural theory used in this study; that the community worldview of risk-sharing is the most common form of water point management in Sub-Saharan Africa despite being criticized for its ineffectiveness.

FGDs participants had various views on water sources available to them, the time taken to access the water points, quality of water, its management and uses. One participant said the following regarding the water sources available to their household:

There are various sources of water available in my homestead. I have two big tanks one is 10,000 liters and the other is 7,500 liters and I store rain water in the tanks, and when the rain water ends, I also have connection to piped water from EWASCO so I fill the tanks using the EWASCO water so that even when the piped water is turned off (rationed) I have some water to keep me going. But when the rationing extends for a long time like now (time of research – October) the tank water gets finished and I have to buy water from bowsers. The bowsers fetch water from Kamburu dam or river Thiba, and the price will depend on where the bowser fetched the water; it can be from Sh2,000 to Sh3,500 depending with the capacity of the bowser because you have to take the whole bowser capacity once you engage their services. I was lucky that during this dry season, schools were closed in the area and the principal allowed us to fetch water from the school's storage tanks. Before that water is over the rain will have begun; so it is like a cycle you just keep adjusting as the seasons change. Water tanks can be very helpful. Other than the bowser water, all other sources available to me are clean and not salty. (Respondent, Mbeere South constituency)

Another FGD participant said:

We get water from a personal borehole and rain water harvesting. Our community has faced many water challenges and sometimes you just get tired of waiting for government solutions. Water scarcity has been used as a tool for political campaigns for so long so

there is no need of waiting for solutions from elected leaders. Drilling my own borehole is costly and the maintenance fees and buying of high-quality tanks and gutters for rain water collection is really challenging but I feel it is the only way to give my family a better life. My family manages the water sources and it is sometimes difficult to maintain a balance of using the water as a family and being a good neighbor. The water I get from the borehole is salty and can only be used for domestic purposes. (Respondent, 17/10/2020).

A participant in the Mavuria ward FGD, where there is a higher use of water for agricultural purposes said:

Here we have better connection to piped EWASCO water and even though the company says it is illegal to use the water for agriculture, we end up using it to water our miraa farms. The water is said to contain chemicals harmful to the plants but so far we have not seen them drying up. We just store the water in tanks as (we believe) this reduces the chemical levels and after a few days we use the water in the farms. Others even use the water on their farms directly. We have no choice but we hear it is illegal. (Respondent, Mbeere South constituency)

4.4 Media Platforms Available to Stakeholders

Media platforms remain important across the globe for passing of information and educating masses on various issues. The media acts as a means to enhanced participation of the public in various socio-economic and political happenings in their environment. This project intended to find out the influence of media-community mobilization on water access and use in Mbeere South constituency. Semi-structured interviews showed that residents were aware of the role media engagement can play in enhancing development. Use of media platforms listed in the survey instrument was substantial, which was critical to the study. Using SPSS multiple response analysis, the data collected shows that the radio remains one of the most available media platforms in the study area, followed by television, social media and newspaper.

Cumulatively, in both wards of study, the frequency of respondents who used the different types

of media is shown in Table 7.

Table 7: Cross tabulation of types of media platforms available in Mbeere South and regularity of use

Type of media platforms	**Regularity of use (Frequency)**				
	Daily	A few times a week	A few times a month	Rarely	Total
Radio	58	16	2	2	78
Television	41	6	1	0	48
Social media	28	6	0	0	34
Newspaper	6	2	0	0	8
Total	77	18	2	2	99

Source: Field study, 2020

In Mavuria ward, the most available media outlet was the radio (42.9%), television (31.9%), social media (19.8%) while newspaper availability stood at 5.5%. The respondents who used the media platforms daily were 74%, while 24% used the platforms a few times a week and 2% a few times a month. None used the media platforms available rarely. Table 8 shows a cross tabulation of the media platforms available to respondents in Mavuria ward and the frequency of use.

Table 8: Media platforms available to respondents in Mavuria ward and frequency of use

Types of media platforms available	**Regularity of use (Frequency)**				
	Daily	A few times a week	A few times a month	Rarely	Total
Radio	28	10	1	0	39
Television	23	5	1	0	29
Social media	15	3	0	0	18
Newspaper	4	1	0	0	5
Total	37	12	1	0	50

In Kiambere ward, availability of the radio stood at 50.6%, television 25.3%, social media 20.3% and newspaper availability stood at 3.8%. These numbers in comparison to Mavuria ward, show a higher use of radio. This could in part be linked to less connectivity to the power grid. According to the Embu CIDP (2019) electricity connection in both Mbeere South and Mbeere North sub-counties stands at 4.9% of households. Further, the radio is highly portable and can easily use battery energy. The use of social media in Kiambere ward is also slightly higher than in Mavuria ward, which confirms the researcher's observation when coming up with the study topic; there are many social media groups related to Kiambere ward leadership and development issues on platforms such as Facebook.

Table 9: Comparison of media platforms available in Mavuria and Kiambere wards

Type of Media Available	**Mavuria Ward (%)**	**Kiambere Ward (%)**	**Mbeere South constituency (%)**
Radio	42.9	50.6	46.5
Television	31.9	25.3	28.8
Social media	19.8	20.3	20.0
Newspaper	5.5	3.8	4.7

Source: Field study, 2020

In the entire study area, cross-tabulation of media platforms available to respondents and their occupation showed that those engaged in business activities had the highest access to the radio at a frequency of 25, the TV (17), and social media (12). Availability of newspapers among this group was at a frequency of (2). On the other hand, most farmers had access to the radio (20), TV (6), social media (3) and none had access to newspapers. Students had the highest frequency of access to newspapers (3). The availability of the different media platforms partly influenced the respondents' ability to answer questions on means of media engagement on water issues and frequency of engagement.

In Kiambere ward, the respondents who used the media platforms available to them daily was 80%, a few times a week (12%), a few times a month (2%), and rarely (6%). Table 10 shows a

cross-tabulation of the types of media platforms available to residents of Kiambere ward and frequency of use.

Table 10: Cross tabulation of types of media platforms available in Kiambere ward and frequency of use

Types of media platforms available	**Regularity of use (frequency)**				
	Daily	A few times a week	A few times a month	Rarely	Total
Radio	30	6	1	3	40
Television	18	1	0	1	20
Social media	13	3	0	0	16
Newspaper	2	1	0	0	3
Total	40	6	1	3	50

Source: Field study, 2020

4.5. Media and Stakeholders Engagement on Water Issues

The study also sought to find out how the media platforms available to stakeholders engaged them on water access and use issues in Mbeere South. Radio discussions emerged as the most common form of engagement and this was linked to the portability of the radio and ability to use batteries, therefore, it can be used even in areas without electricity connectivity**.** Table 11 shows how media platforms engage stakeholders on water access and use issues in Mbeere South constituency.

Table 11: Means of stakeholders' engagement in Mbeere South

Means of engagement	**Percentage**
Radio discussions/interviews/news reports	44
Not heard of any engagement	35
TV interviews/panel discussion/ news reports	17
Other (Social media, phone messaging, newspaper articles)	4
Total	**100**

Source: Field study, 2020

Key informants from the media pointed out that news reports were the most common means of engagement with Mbeere South stakeholders on water access and use issues. They also engaged in panel discussions with stakeholders, interviews with residents and call-ins for radio outlets. One Key informant described one of their engagements with water stakeholders in Mbeere South:

> *Our team visited Mbeere South to talk to residents on water access challenges they face - with the major challenge being distance to water points- and engaged local leaders on how to find a solution to the challenges. Such an exercise is then scripted into a news report or feature story for our consumers. (Key informant interview, Mbeere South constituency).*

Another media key informant said:

> *We carry out interviews with locals for print news stories; one interview was carried out at Riachina village near Kiambere dam and at Mutuobare market struck by water shortage for years. We often cover stories of human-wildlife conflict in the area, such as when crocodile attacks happen. (Key informant interview, Mbeere South constituency).*

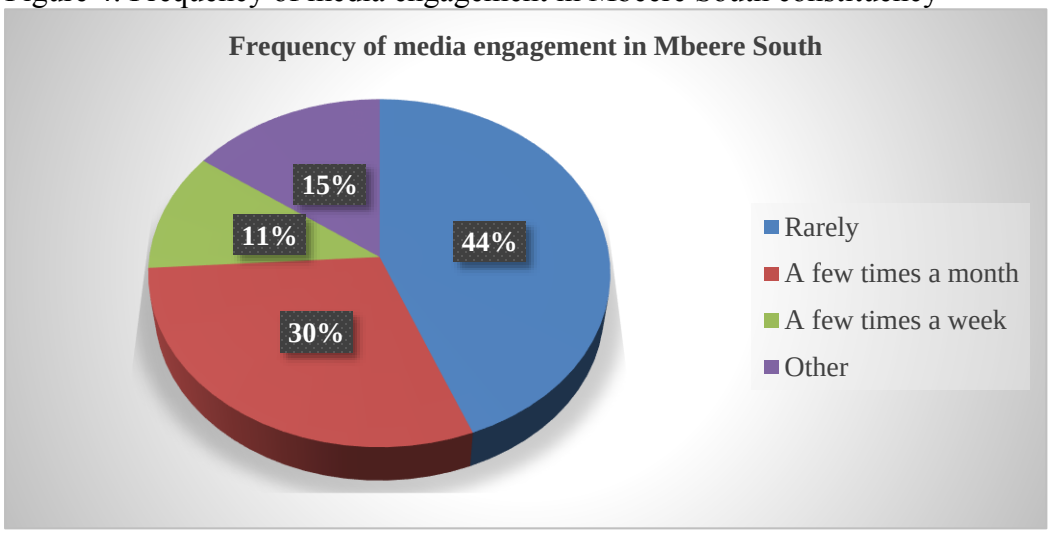
Participants of FGDs had various views on how media engagement with stakeholders occurs in Mbeere South constituency. Four participants said:

> *"Social media is quite frequent in airing water concerns while TV and Radio usually do features on water maybe on a weekly basis but in the end no one seems to care";*
>
> *"Radio talks and discussions are usually held whereby radios host different leaders to talk about the plans they have for their areas while highlighting existing water access challenges. One such show is called 'Kiviaviano' on Wimwaro radio station";*
>
> *"Facebook groups are quite active and members discuss water shortage in Mbeere South";*
>
> *"There are discussions and interviews on radio but maybe when something bad happens like a crocodile attack that is when we see them around". (Key Informants, Mbeere South Constituency)*

A survey on the frequency of media engagement in the entire study area, showed that most respondents (44%) rarely heard of media and stakeholders' engagement on water issues. Some 30% said they had heard of media engagement a few times a month, 11% had heard of media

engagement a few times a week while 15% selected 'other'; with specifications such as engagement only happened when there was an incident such as a crocodile attack or during election campaign periods.

Figure 4: Frequency of media engagement in Mbeere South constituency



Source: Field study, 2020

Most respondents were quick to shift the discussion on media engagement and water access and use to political occurrences. They associated media engagement with political campaigns that happen during the election period. Knowledge of media engagement on water access and use was influenced by age of the respondents; younger respondents tended not to have heard of the engagement, while middle-aged and older respondents were aware of such engagement. This is because of preferences of media platforms. Some youthful respondents admitted to listening to or watching media platforms that offer purely entertainment programs and thus miss out on developmental discussions such as water access and use. Occupation of the youthful respondents such as *boda* also influenced the frequency of using mainstream media platforms that are likely to highlight water access and use issues in Mbeere South constituency. Media preferences also influenced the responses, whereby some had heard of media engagement on water issues but in other counties such as Kitui and Kirinyaga – after consuming media content produced for the said communities. Length of residency in Mbeere South also affected the responses given.

4.6 Effects of Media Engagement on Water Access and Use

4.6.1 Social Action Taken by Stakeholders

A majority of respondents (49) did not know of any social action such as meetings or digging of dams that had been conducted following media engagement on water issues in Mbeere South constituency. This number was followed by 10 respondents who knew of demonstrations having taken place following media engagement on water issues. Another 5 respondents knew of meetings held by stakeholders following media engagement on water issues. Some respondents knew of 'other' forms of social action include laying of water pipes, digging dams, wells and boreholes and donation of water tanks. Informants shared their views on social action they knew of following media engagement on water issues and demonstrations were a common feature among the responses. One Informant said:

> *Mbeere South stakeholders, political leaders and well-wishers frequently conduct social gatherings to collect views and ideas from Wananchi. This has led to setting up of water points, digging of boreholes in different areas and this has facilitated nearness of water to the community. (Key informant interview, Mbeere South constituency)*

Four other informants said:

> *MCAs and the KENGEN team usually meet to come up with strategy to fund water projects through building of tanks and dams. (Key informant interview, Mbeere South constituency);*

> *There has been provision of water tanks to women and youth groups to harvest and store water over the rainy season which they can use during the dry spell. The area MP has also been digging earth dams at strategic points to also collect the run-off water during the rainy season. (Key informant interview, Mbeere South constituency;*

> *There has been installation of water pipes, water tanks and construction of dams;*

Meetings have also been held with leaders and the community leading to digging of water pipelines; meetings are also held to discuss how to supply water uniformly. (Key informant interview, Mbeere South constituency);

I know of a leader who came up with an idea of digging an earth dam to some households; locals also engage the KENGEN company on water supply to the communities around the dams. (Key informant, Mbeere South constituency).

Media key informants revealed that demonstrations and meetings were the most common form of social action witnessed in the study area. The meetings were held by community members and also by local leaders and Kenya Electricity Generating Company PLC (KENGEN) management. The meetings held were to discuss how to improve the water access challenges in the area; some of the issues discussed was how to improve water harvesting and storage for use during the dry seasons. The meetings also touched on how to improve water access to enable irrigation farming and increased acreage of *miraa* farms, which have over the years become a major source of income for Mbeere South constituency residents. Data from the study area did not indicate that the meetings had yielded positive change regarding water access and use. However, the researcher observed several water storage tanks had been donated by KENGEN and placed in market centers and chief's office grounds.

Key informants from key government offices and water companies, acknowledged that demonstrations and meetings were the key social actions taken by stakeholders after media engagement on water access and use issues in Mbeere South constituency. Demonstrations were mainly associated with lack of water supply (for weeks) to areas already connected to Embu Water and Sanitation Company (EWASCO) piped water supply lines. Protests were also associated with fatal crocodile attacks in areas where residents source water from major dams such as Kiambere dam. Meetings were mostly held to demand for water.

FGDs participant also noted occurrence of demonstrations as one of the main social actions taken by stakeholders after media engagement on water issues. Three FDGs participants said:

I know of protestors from Kiambere ward who visited the governor's office in Embu town

to protest water scarcity in their area. There were also riots organized outside KENGEN offices to demand water supply to surrounding communities;

I have seen demonstrations to pressure KENGEN to provide water to near-by communities and also protests to demand justice for victims of crocodile attacks in the seven-forks dams especially Kiambere dam;

In our area the most common action is laying of pipes because some people already have piped water so it is just a matter of expanding coverage but sometimes pipe lines are dug but nothing happens until they become blocked again. (Key Informants, Mbeere South constituency)

4.6.2 Media Community Mobilization, Water Access and Use

Mbeere South constituency is a semi-arid area and residents mostly depend on rain-fed agriculture. Water from available sources is commonly used for domestic purposes. 85.1% of all respondents said they use the water available to them for domestic purposes while 14% use the water available for agricultural use. Some 0.9% of respondents use water for 'other' purposes, specified as use in business activities. The statistics on water use are despite research linking water and sustainable development especially in Africa and the achievement of Millennium Development Goals (MDGs). Asked if there was any change in water access and use following media engagement on water issues and social action by stakeholders, which was referred to as Media Community Mobilization in this project, a majority of respondents said there was no change in water access (83%) and use (87%).

There is still no change in water access and use. However, we are expecting the Gitaru-Mutuobare water project to be complete soon. (Key informant interview, Mbeere South constituency).

There is no change in water access but more pipes are being laid but we are yet to get water through them. Dams have also been dug but water has not yet filled the dams because it is the dry season. (Key informant interview, Mbeere South constituency).

There is has not been change in access and use though water piping was done but we ae yet to be connected to water supply. (Key informant interview, Mbeere South constituency).

Some respondents noted that there was a negative change in water use whereby those who could earlier use the water sources available to them to practice food or cash crop farming have had to reduce the acreage over the years as the water access situation has worsened in their communities.

Key informants from the media strongly agreed that there was change in water access and use following media engagement on the issue. The noted changes in access included expansion of piped water connectivity, digging of dams and water pans and having upcoming projects spearheaded by KENGEN and the county government.

I am aware of a water project being done by the county government in collaboration with KENGEN that will see Makima ward residents get water. (Key informant interview, Mbeere South constituency).

Other key informants (Water CEC, EWASCO, chiefs) said there was change in access and use (3) while one informant said there was no change in access and use. Key informant 105, stated the percentage of clean water access in Mbeere South was at 48% compared to the county access level of 70%.

We have initiated six water projects in Mbeere South following media engagement on water access issues. They include pumping water from Gitaru dam to Issako and Mutuobare villages. There is also an ongoing project of pumping water from Masinga dam to Bondeni area. Even this morning (day of interview), I have met with investors to discuss implementation of several dam projects. (Key informant interview, Mbeere South constituency).

The listed changes coincide with some responses from semi-structured interviews, however, the impact of these changes is yet to be felt by the residents.

Efforts are being made to improve the water use and access situation but we are yet to see results. Some projects are initiated as knee-jerk reactions and therefore, do not offer lasting solutions. Laying of pipes has been done in many areas but water flow is yet to be seen. Earth dams that are dug haphazardly do not retain water yet that is what leaders are offering instead of well thought-out plans like a proper dam that can hold water in all seasons. (Key informant interview, Mbeere South constituency).

Some FGDs participants acknowledged there was change in water access and use following media-community engagement on water issues. They were, however, reluctant to be quoted on the same, given that use of EWASCO water use for agricultural purposes is considered illegal.

In conclusion, data from the field survey showed that residents of Mbeere South constituency, local leaders and stakeholders are aware of media engagement on water issues and some acknowledge there is change in water access due to such engagement. This coincides with the recommendations of the Institutional and Cultural theory that guided this study, which advocates for pluralistic institutions to enhance water sources management especially in rural areas. From the data collected in Mbeere South, there is a notable attempt to integrate various worldviews, especially community worldview and bureaucratic (institutionalized) worldview of rural water management. Further, there is an awareness on the role the media can play in articulating water access and use challenges in the study area, which was one of the pertinent issues this study attempted to investigate; if the media is facilitating the discussion on water access and use in Mbeere South constituency and the effects of such articulation.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study sought to find out how media-community mobilization affects water access and use in Mbeere South constituency. This section includes a summary of the findings, conclusion and recommendations.

5.2 Summary

This study was guided by four research questions. Finding on the sources of water available to residents of Mbeere South constituency showed that the sources available to respondents were dependent on factors such as location of household and financial status. Those that used boreholes were 30%, 'other' water sources (dams and bowsers) stood at 22.6%, use of rivers at 15% while piped water use had the lowest percentage of 8.3%. Forty-six (46) percent of respondents spent more than one hour to access water sources while 21% paid more than Sh10 for a 20-litre jerrican. Those that did not incur monetary costs to access water such as dam users, described the situation as paying with their time given the distances to the water sources. The water sources available were mainly managed by the community members at 51% while individual management of water sources was the least common at 4%.

The second research question was on media platforms available to residents in the study area. The radio emerged as the most common media platform used by respondents in the study area at 46.5%, TV usage at 28.8%, social media use 20% while newspaper use was at 4.7%. Those that used the media platforms available to them daily were 78%, a few times a week (18%), a few times a month (2%) and rarely (2%).

The third research question sought to find out how the media platforms available engage Mbeere South constituency stakeholders on water access and use challenges. The most popular means of media engagement on water issues with residents and stakeholders was through radio discussions and interviews at (44%) on local radio outlets, those who had not heard of any media engagement on water issues were 35%, those that knew of engagement through TV interviews were 17% while

other forms of engagement such as through social media, phone messaging and newspaper articles stood at 4%.

The fourth research question sought to find out if media articulation of water issues in the area has affected water access and use in any way. This question was linked to knowledge of social action taken by stakeholders following media engagement on water issues. Findings showed that 83% of respondents did not know of any change in water access and 87% of respondents did not know of any change in water use in Mbeere South.

5.3 Conclusion

Secondary data shows that water scarcity has persisted in the study area for decades. The study findings supported the literature on existing water scarcity in the study area, despite efforts from various stakeholders to address the water access and use challenges in the area. With about 83% of respondents stating that there was no change in water access and 87% of respondents stating that there was no change in water use despite media-community mobilization on water issues, the study showed that there is a weak link between media-community mobilization and water access and use in Mbeere South.

This conclusion was mainly drawn from responses on the means of media engagement with stakeholders on water issues, frequency of engagement and if there was any social action among stakeholders following media engagement on water issues in Mbeere South. The frequency of media engagement with stakeholders was reported to be rare (44%) in Mbeere South constituency. There was also low knowledge of social action following media engagement on water issues whereby 49% of respondents had not heard of any social action. Only 7% of respondents acknowledged there was change in water access while 3% acknowledged there was change in water use that could be linked to media-community mobilization.

However, while many respondents stated there was no change in water access and use, the word ‘yet’, stood out in that there is recognition of increased media engagement on water issues in the area and increased action by various stakeholders to address the water challenges. As the

theoretical framework used in the study proposed, there was evident use of pluralistic institutions framework of managing water sources in rural areas that is advocated for by Koehler et al., (2018). This paradigm seeks to incorporate various worldviews of rural water management such as community worldview, where the risks and benefits from a water source and borne communally and bureaucratic worldview, where management of water sources is left to rules and procedures of formal institutions. From the data collected on social action witnessed in the study area, there was regular mention of involvement of community members, local leaders, formal water provision mechanisms such as EWASCO in provision of piped water and KENGEN, that is reported to be supporting initiatives such as digging of dams and distribution of water storage tanks. This is the kind of 'plurality' that was advocated for in the theoretical framework used in this study and it is seemingly in use in Mbeere south even if the positive results of this kind on engagement is yet to be felt by residents. Whether the media is facilitating the discussion of the water access and use challenges in Mbeere South constituency was a pertinent question in the study and the findings showed that there is relative engagement with stakeholders and there was an air of expectation among respondents that continued engagement could yield results of improved water access and use in the near-future.

The study had also focused on water as a devolved function, and the findings of the study – that there is no change in water access and use despite media-community mobilization – shows that there is need for enhanced efforts to take services closer to the people, which is a key function of the devolved units. Further, there is need for enhanced community participation, which can be done through media platforms, to ensure the water access and use situation changes positively in Mbeere South.

There was also an emphasis on water as a rights issue in the study. The right to water is recognized by various international and country-specific declarations and laws including the Kenyan Constitution. The right to water was also linked to sustainable development, health implications and dignity for women in the study. The findings of this study that water scarcity still persists in Mbeere south with very few residents engaging in irrigation implies that the area is at a risk of being left behind in attainment of sustainable development. Literature review also raised a critical issue of water inequalities that can occur through regional marginalization, accessibility (distance

to water point) and water source type. The study found that water inequality through accessibility was highly prevalent in the study area, which calls for concerted efforts to highlight and address the water challenges in the study area.

5.4 Recommendations

In view of the study findings, the following policy recommendations suffice:

i. Given the importance that the residents of the constituency attach to the media as a source of information, there is need for increased media engagement on water access and use issues in Mbeere South constituency.

ii. There is need for implementation of sustainable water projects. This will ensure more sustainable solutions to the water access and use challenges in the area. This recommendation was informed by study findings that respondents describe social actions such as digging of earth dams conducted in their communities to enhance water access as 'haphazardly' done and others initiated as tokenism to specific areas or households or as knee-jerk reactions following fatal incidents such as crocodile attacks.

iii. There is need for elected leaders and others in the county to ensure implementation of the existing policies and develop other region-specific policies given the variance in weather experienced in upper Embu and lower Embu county area, where Mbeere South constituency is situated.

iv. There is need for supporting residents of Mbeere South constituency with resources to develop water storage units. Building of underground tanks, individual earth dams and wells would ease water access challenges and encourage diversification of water use.

While this study established a weak relationship between media-community mobilization and enhanced water access and use, from observation, there has been significant use of media to highlight the water access situation in the area and increasing social action on the same. There is an opportunity for a longitudinal study on the same variables. From the data collected, there was evidence of significant media use and media engagement on water issues in the study area. While the effects of this engagement are yet to translate to positive change, a longitudinal study would

investigate if this expected positive change will really happen and if there change in access, how the community will diversify its water uses and the implications of such diversification.

There is also an opportunity to investigate how the formal and informal water rules and management structures in Embu county influence water provision in Mbeere South constituency.

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APPENDICES

Appendix 1

SEMI-STRUCTURED QUESTIONNAIRE (INDIVIDUALS SELECTED FROM HOUSEHOLDS IN MAVURIA AND KIAMBERE WARDS)
Informed Consent

My name is …… I am a Masters Student from the Institute for Development Studies, University of Nairobi conducting a study on **"Role of Media Community Mobilization in Water Access and Use in Mbeere South, Kenya"**. The study seeks to understand how media engagement with residents and stakeholders affects water access and use in Mbeere South, and the study is in fulfilment of my Masters Degree program.

I would like to request permission to talk to you about media engagement and how the water access and use situation in the area has changed or not following any type of media-community engagement. The information you will share with me will be kept confidential and only used for the purposes of this study. No contacts or names will be revealed or used in reporting the findings.

You are free to stop the interview at any time if you feel you are unable to continue and no victimization or condition is attached. No compensation is given for participation, however, the researcher expresses heartfelt gratitude with the hope that the findings will contribute to resolving the persistent water access challenges in Mbeere South.

Do you have any questions? Yes……. No…….
Researcher's Name: ……
Signature: ……
Resident's Name: ……
Signature…….

SECTION 1: DEMOGRAPHIC CHARACTERISTICS

Location of Interview		
Ward		
Village		
Date		
Sex of participant		
Occupation		
Marital Status		
Start time		
Stop time		

1. What is your highest level of education? Tick one

No formal education ……...

Primary ……

Secondary…….

College …….

University…….

Post Graduate…….

SECTION 2: WATER ACCESS

2. What are the water sources available to your household? (Tick where appropriate)

a) River
b) Well
c) Borehole
d) Rainwater
e) Piped water
f) Other (specify)

3. How long do you take to access the water sources available?
   a) Less than 30 minutes
   b) One Hour
   c) More than one Hour

4. How would you describe the quality of water from the sources available?
5. What is the cost of water from the stated water sources?
   a) None
   b) Ksh 1-10 per 20 litre jerrican
   c) More than Ksh10 per 20 litre Jerrican
   d) Other (Specify)
6. How are the water sources available to you managed?

SECTION 3: MEDIA ENGAGEMENT

7. What types of Media platforms are available to your household? (Tick where appropriate)

    a) Radio
    b) Television
    c) Social media
    d) Newspaper

8. How often do you use the platforms available to you?

    a) Daily
    b) A few times a week
    c) A few times a month
    d) Rarely

9. How do the stated platforms engage stakeholders on water access issues in Mbeere south?

10. How often do the stated media platforms engage stakeholders on water access issues in Mbeere South?
    a) Daily
    b) A few times a week
    c) A few times a month
    d) Rarely
    e) Other (Specify)

SECTION 4: EFFECTS OF MEDIA ENGAGEMENT ON WATER ACCESS AND USE

11. Do you know of any social action taken by Mbeere South stakeholders following water access discussions initiated by the media?

12. How do you use the water available to your household at the moment?
    a) Domestic use
    b) Agricultural use
    c) Other (Specify)

13. Is there any change in water access in your community following media engagement on water issues?

14. Is there any change in water use in your household/community following media engagement on water issues?

Appendix 2

SEMI-STRUCTURED QUESTIONNAIRE (Key informant interview; Media Representatives)
Informed Consent

My name is …EUNICE KARIMI MUGO…… I am a Masters Student from the Institute for Development Studies, University of Nairobi conducting a study **on "Role of Media Community Mobilization in Water Access and Use in Mbeere South, Kenya".** The study seeks to understand how media engagement with residents and stakeholders affects water access and use in Mbeere South, and the study is in fulfilment of my Masters Degree program.

I would like to request permission to talk to you about media engagement with Mbeere South residents and stakeholders on water access and use. The information you will share with me will be kept confidential and only used for the purposes of this study. No contacts or names will be revealed or used in reporting the findings.

You are free to stop the interview at any time if you feel you are unable to continue and no victimization or condition is attached. No compensation is given for participation, however, the researcher expresses heartfelt gratitude with the hope that the findings will contribute to resolving the persistent water access challenges in Mbeere South.

Do you have any questions? Yes……. No…….
Researcher's Name: ……

Signature: …….
Key informant's Name: ……
Signature…….

SECTION 1: DEMOGRAPHIC CHARACTERISTICS

Location of interview	
Date	
Sex of participant	
Occupation	
Institution	
Start time	
Stop time	

Questions

1. In brief, tell us about the focus of your media house / or the key issues that you focus on.

2. Has your media platform ever engaged residents and stakeholders of Mbeere South on Water access issues?
   a) Yes
   b) No
3. If yes, what was the means of engagement? (Probe for: calls, news reports, panel discussion, social media interaction, text messages etc.)

4. If yes to Q2, how often does your platform engage residents of Mbeere South on water access issues?
5. Have you reported any social action taken by Mbeere South residents or stakeholders following media engagement on water access issues in the area?
6. Have you reported any changes in water access and use following media-community engagement on the topic in Mbeere South?
7. In your view, what do you consider as some of the challenges that households in this area face in terms of water access and use? How can these problems can be resolved?
8. Apart from your media house, what other media platforms are available to residents in this area?
9. Out of the media platforms mentioned, is any of them involved on issues of water in this area?
10. In your view, how can the community tap on media platforms to address the challenge of water access in the area?

Appendix 3

SEMI-STRUCTURED QUESTIONNAIRE (Key informant interview; MCAs, Embu Water CEC, EWASCO Representative)
Informed Consent

My name is ……EUNICE KARIMI MUGO…… I am a Masters Student from the Institute for Development Studies, University of Nairobi conducting a study on **"Role of Media Community Mobilization in Water Access and Use in Mbeere South, Kenya".** The study seeks to understand how media engagement with residents and stakeholders affects water access and use in Mbeere South, and the study is in fulfilment of my Masters Degree program.

I would like to request permission to talk to you about media engagement and how the water access and use situation in the area has changed or not, following any type of media-community engagement. The information you will share with me will be kept confidential and only used for the purposes of this study. No contacts or names will be revealed or used in reporting the findings.

You are free to stop the interview at any time if you feel you are unable to continue and no victimization or condition is attached. No compensation is given for participation, however, the researcher expresses heartfelt gratitude with the hope that the findings will contribute to resolving the persistent water access challenges in Mbeere South.
Do you have any questions? Yes……. No…….
Researcher's Name: ……
Signature: ……
Key informant's Name: …….
Signature……...

SECTION 1: DEMOGRAPHIC CHARACTERISTICS

Location of Interview	
Date	
Sex of participant	
Occupation	
Institution	
Start time	
Stop time	

QUESTIONS

1. How would you describe the water access and use situation in Mbeere South?
2. How would you describe the water available to residents of the above area?
3. What is the average time spent sourcing for water in the stated areas?
4. How much do residents pay to access water sources in the stated area?
5. What media platforms are available to the residents of this area?
6. What is the role of the media in addressing the issue of water access and use in this area?

7. Have you initiated any water access programs following media engagement on water access issues?
8. Have you seen or heard residents engaging in social action (e.g. demand for water) following media engagement on water access issues in Mbeere South? (Probe for community / stakeholders meetings / social action)

9. Is there any change in water access and use in Mbeere South that you would attribute to media-community engagement?
10. What is your view on the policy and legal environment that governs water access and use in this area (Probe for county policies / laws; national policies /laws, regulations etc.; extent to which these are implemented).

Appendix 4

FOCUS GROUP DISCUSSION GUIDE

Informed Consent
My name is …… I am a Masters Student from the Institute for Development Studies, University of Nairobi conducting a study on **"Role of Media Community Mobilization in Water Access and Use in Mbeere South, Kenya"**. The study seeks to understand how media engagement with residents and stakeholders affects water access and use in Mbeere South, and the study is in fulfilment of my Masters Degree program.

I would like to request permission to talk to you about media engagement and how the water access and use situation in the area has changed or not following any type of media-community engagement. The information you will share with me will be kept confidential and only used for the purposes of this study. No contacts or names will be revealed or used in reporting the findings.

You are free to stop the interview at any time if you feel you are unable to continue and no victimization or condition is attached. No compensation is given for participation, however, the researcher expresses heartfelt gratitude with the hope that the findings will contribute to resolving the persistent water access challenges in Mbeere South.
Do you have any questions? Yes……. No…….
Researcher's Name: ……
Signature: ……
Participants leader Name: …….
Signature……...

SITE OF INTERVIEW		
WARD		
VILLAGE		
DATE		
NUMBER OF PARTICIPANTS		
SEX OF PARTICIPANTS	F	M
TYPE OF GROUP		
START TIME		
STOP TIME		

QUESTIONS

1. What are the water sources available to residents in this area?
2. How would you describe the water from these sources?
3. What is the cost of water from the said sources?
4. How do residents use the water available to them?
5. What is the approximate time spent in sourcing for water from the said sources?

6. What media platforms do you have access to?
7. How often do you use the media platforms listed?
8. Have you heard or seen the media platforms listed engaging Mbeere South residents and stakeholders on water access issues?
9. If yes, what was the form of engagement? (Calls, news reports, panel discussions, social media interaction, text messaging)
10. How often have you heard or seen the media platforms listed engaging residents and stakeholders on water access issues? (Probe for: frequency in voice calls, panellists, social media)
11. Have you seen or heard residents and stakeholders engaging in any form of social action following media engagement on water access issues? (Probe for community or stakeholders / social action)
12. Is there any change in water access and use that you would attribute to media-community engagement on water issues in Mbeere South?
13. What do you consider as some of the challenges residents face in regard to water access and use in this area? How can these challenges be resolved?