

African Rural University



**The Practicability of Community-Driven Approaches for Water Accessibility in
Mabuyemeru A Village, Burora Sub-County, Kagadi District**

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**A Research Report Submitted to the Faculty of Technologies for Rural
Transformation (TRT) of African Rural University in Partial Fulfilment for the
Requirements of the Award of a Bachelor's Degree of Rural Development**

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DECLARATION

I, Akao Lyn, declare that this report is out of my research effort with the community of Burora Sub County and it has never been submitted for any award in any university or other Institution of Learning.

Signature 

Date: 23/06/2025

Akao Lyn

21/ARU/BRD/003

APPROVAL

This research report has been written under my close supervision and I do approve that this is Akao Lyn's work.

Mr. Tusiime John (Faculty Mentor)

Sign 

Date: 23/06/2025

Mr. Twesiime Paulino (TWS)

Sign 

Date: 23/06/2025

Miss. Anakuya Mary Gorreth (Field Mentor)

Sign 

Date : 23/06/2025

ABSTRACT

This study on the practicability of community-driven approaches for water accessibility in Mabuyemeru A Village, Nyamukaikuru Parish, Burora Sub County in Kagadi District aimed to explore the community-driven approaches and their effectiveness for water accessibility in Mabuyemeru A Village, and improving the overall quality of life in the community. A mixed-methods approach was employed, combining qualitative and quantitative data on water sources and community involvement in water management. The findings highlighted the urgent need for improved clean water access and the importance of increasing community participation in water management practices. The target population included men, women, and children beginning with the age of 12 years, with a sample size of 197 participants. The stakeholders included; community members of Mabuyemeru A Village, community leaders and other relevant stakeholders including the Chairperson Local Council III of the Sub County. Various data collection methods such as community dialogue, focused group discussions, interviews, questionnaire survey and participatory observation were employed to gather information. The findings showed the challenges faced in implementing the strategies for water accessibility included issues like long distance 31.5%, skill and knowledge gaps (23.4%), inadequate financial resources (19.3%), inadequate infrastructure (15.7%), laziness of community members (5.6%) and limited access to funding and weak governance (4.6%). Based on these findings, recommendations were made to develop a community-driven framework, including community engagement and participatory planning, financial sustainability, capacity building, continuous monitoring and evaluation and water conservation as the solutions to the challenges facing water accessibility in Mabuyemeru A Village. In conclusion, this research contributes to the ongoing efforts to improve water accessibility, and the growing literature on community-driven water management, providing valuable insights into the potential of local initiatives in improving water access and promoting sustainable water resource management in developing countries.

CHAPTER ONE

GENERAL INTRODUCTION

1.0 Introduction

This chapter included the background of the study, background of the village, vision statement, objectives, and study questions, scope and the significance of the study.

Community-driven approaches refer to methods and strategies that prioritize and involve the active participation and input of local communities in decision-making and creating what they truly want, ensuring that their needs and perspectives shape the outcomes.

1.1 Background of the study

Globally, rural areas often face water scarcity due to a combination of geographical, infrastructural, socio-economic, and environmental factors. Geographically, rural regions may be located far from water sources or suffer from erratic rainfall patterns, leading to water scarcity. Inadequate infrastructure, including limited piped water networks and poorly maintained wells or pumps, exacerbates the problem, resulting in unreliable or contaminated water supplies. Socio-economic issues such as poverty, limited education, and lack of resources further hinder rural communities' ability to invest in water infrastructure and sanitation facilities. Additionally, environmental factors such as deforestation, land degradation, and climate change contribute to water scarcity and degradation of water quality, particularly in vulnerable rural ecosystems. Overall, addressing rural water scarcity requires integrated approaches that consider the complex interplay of these factors and prioritize community engagement, sustainable management practices, and investment in infrastructure and resources.

In the 2019 paper by Gleick, P. H., titled “Water Scarcity and the Challenge of Defining Water Stress,” the author highlights the importance of understanding water scarcity, as it has significant implications for human well-being, ecosystem health, and socioeconomic development. He also notes that, water scarcity can result from physical shortages, as well as from socioeconomic, institutional and management factors.

In Africa, rural areas face water scarcity due to a combination of factors. One primary reason is the continent's diverse geography, with many regions experiencing irregular rainfall patterns and prolonged droughts, exacerbating water shortages. Additionally, limited infrastructure and investment in water management systems contribute to inadequate access to clean water sources. In many rural areas, existing water sources such as rivers, lakes, and groundwater reservoirs are often contaminated with pollutants due to agricultural runoff, industrial activities, and inadequate sanitation facilities, further exacerbating the problem. Population growth, coupled with rapid urbanization, strains already limited water resources, leading to increased competition and conflicts over access to water. Moreover, climate change-induced shifts in weather patterns and rising temperatures are expected to worsen water scarcity in many parts of Africa, posing significant challenges to rural communities' livelihoods and well-being.

In rural Africa, community-driven approaches enhance water security by empowering local groups to manage and maintain water resources, which fosters sustainable practices and improves access to clean water. By involving communities in decision-making and resource management, these approaches ensure that solutions are culturally relevant and more resilient to local challenges.

In rural Uganda, water scarcity is a pressing issue due to several factors. The country's geographical location in the East African region means it experiences erratic rainfall patterns and prolonged dry seasons, leading to shortages. Inadequate infrastructure and investment in water management systems further exacerbate the issue, with many rural communities lacking access to reliable sources of clean water. Additionally, deforestation, soil erosion, and land degradation contribute to the depletion of water resources, affecting both surface water bodies and groundwater supplies. Population growth and limited access to sanitation facilities also strain available water resources, leading to contamination and further reducing the availability of safe drinking water. Addressing water scarcity in rural Uganda requires comprehensive strategies that include improved infrastructure, sustainable water management practices, community empowerment, and climate resilience measures.

In Kagadi District, Uganda, water scarcity is a pressing issue due to several factors. Fluctuations in rainfall patterns during dry seasons lead to shortages, aggravated by limited infrastructure and investment in water management. Deforestation, soil erosion, and land degradation also

contribute to water resource depletion, affecting both surface and groundwater. Population growth and inadequate sanitation facilities strain available water, causing contamination and reduced access to safe drinking water. To tackle this, efforts are needed to improve infrastructure, implement sustainable water management practices, empower communities, and promote climate resilience measures tailored to Kagadi's challenges.

Community-driven approaches lead to water security in rural areas by leveraging local knowledge and active participation to tailor solutions to specific needs, ensuring more sustainable and effective management of water resources. This local involvement fosters ownership and accountability, improving maintenance and resilience of water systems. This covers Sustainable Development Goals (SDGs), Particularly SDG 6, which is focused on clean water and sanitation. And this is emphasized by United Nations Development Programme (UNDP)

Source:(Naiga, September 2018)

1.1.1 Background of the village

Mabuyemeru A Village is a rural community located in Burora Sub-County, Kagadi District, Uganda. The village is bordered by Kituugu A Village to the west, Kituugu B Village to the east, Nyamukaikuru Village to the south and Kyakabadima Sub County to the North.

The area is characterized by rocky and hilly landscapes, featuring sparse forest cover. These factors significantly influence the accessibility of water in the village. Additionally, a seasonal river runs through the area, filling up during the rainy season and drying up during the dry season.

It demonstrates rural life with its reliance on subsistence farming and small-scale agriculture and tight-knit community bonds. Despite its moderate population of 515 people, the village boasts a vibrant community with members actively engaged in local affairs and communal activities.

However, Mabuyemeru A faces a pressing challenge: water scarcity. The village grapples with limited accessibility to water, a critical issue that impacts daily life, agricultural practices, and overall well-being. Additionally, the resilient spirit of the residents of Mabuyemeru fuels efforts

to address water scarcity through community-driven approaches and collaborations with local authorities and organizations.

Source: author's own

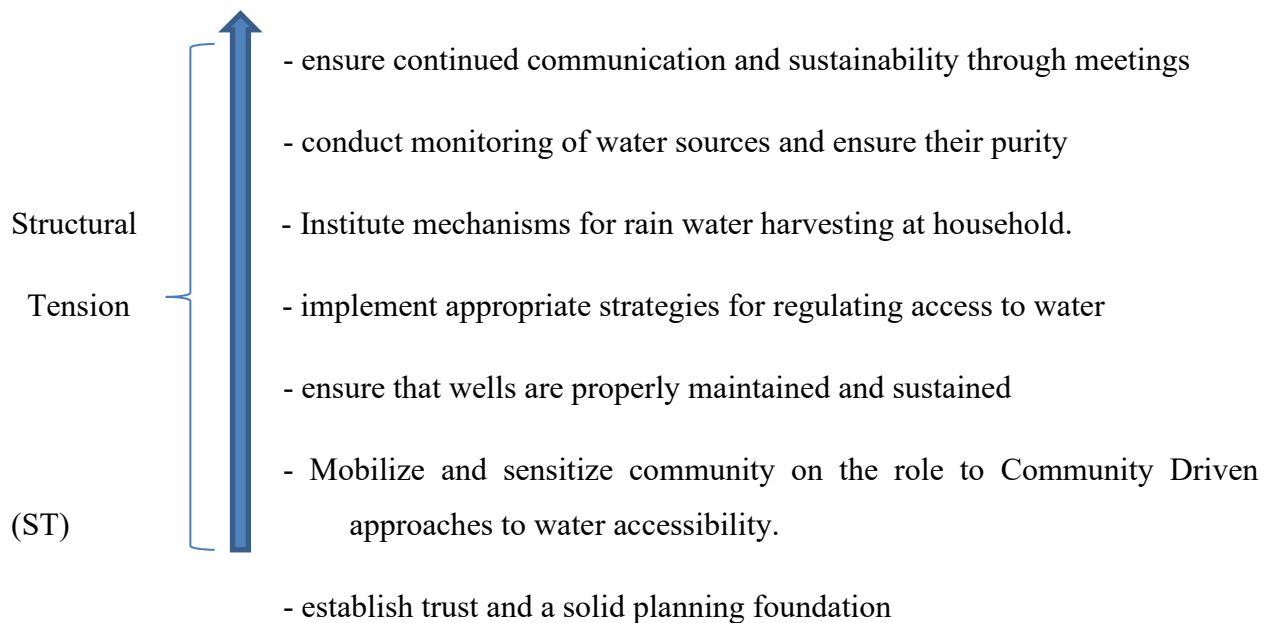
1.2 Vision Statement

A village with provision of adequate clean safe water to 125 households benefiting 515 people by 2028.

1.2.1 Illustration of the Structural Tension

Vision: A village with provision of adequate clean safe water to 125 households benefiting 515 people by 2028.

Action steps



Current reality:

- Limited water accessibility
- One borehole in place
- No functioning rivers, wells, swamps or streams
- No technical skills

-Labour available

1.2 Purpose of the study

The purpose of the study was to assess the practicability of community-driven approaches for water accessibility in Mabuyemeru A Village.

1.3 Objectives of the study

To assess the current water accessibility in Mabuyemeru A Village

To determine the effectiveness of existing community-driven water management practices

To develop a framework for implementing community-driven water accessibility solutions tailored to Mabuyemeru Village.

1.5 Research questions

What is the current water accessibility in Mabuyemeru A Village?

What is the effectiveness of existing community-driven water management practices?

What is the framework for implementing community-driven water accessibility solutions tailored to Mabuyemeru Village?

1.6 Significance of the study

To the community, the significance of the study lies in its potential to improve water accessssibility and ensure a sustainable water supply for the residents. By exploring community-driven approaches, the research aimed to identify innovative and effective solutions that could be implemented by community itself. Therefore, the study contributed to a healthier, more resilient and economically vibrant Mabuyemeru Village.

To the intern, it was an opportunity to gain hands-on experience in applying community-driven approaches to a real-world problem. This project offered the intern a chance to develop critical skills in research methodology, data analysis and collaboration, all while contributing to a project with potential positive impact on a community.

To African Rural University, having provided valuable insights and practical lessons for students, it enhanced their educational experience and preparing them for careers focused on sustainable development and community-driven solutions.

To the students of African Rural University, it is the opportunity to learn from real-world experiences and insights gained through community-driven approaches to water accessibility. This study can serve as a valuable case study, providing practical examples and lessons that can enrich their understanding of sustainable development and inspire them engage in similar research projects in the future.

1.7 Scope of the study

The scope of this study included the content scope, geographical scope, and time scope.

1.7.1 Content Scope

The research explored into the practicability of implementing community-driven approaches for water accessibility in Mabuyemeru A Village. It started with an introduction providing context on the village and the significance of water security, followed by a thorough literature review encompassing past studies and theoretical frameworks related to community involvement in water management. Methodologically, it employed a mixed-methods approach, combining surveys, interviews, and observational data collection.

The study analysed the current water accessibility in Mabuyemeru A Village, exploring socio-economic factors affecting access and quality, alongside existing water management practices. Emphasis will be placed on community engagement strategies, assessing their efficacy and identifying stakeholders. Practicability was evaluated by analysing available resources and potential barriers to implementation, including technological and infrastructural considerations.

Additionally, the research investigated capacity-building initiatives, sustainability measures, and policy implications. The findings offered insights into the viability and effectiveness of community-driven approaches for sustaining water security in Mabuyemeru A Village, providing practical recommendations for future interventions.

Source: Author's own

1.7.2 Geographical Scope

The geographical scope of this research focused specifically on Mabuyemeru A Village and its immediate surrounding areas. It is located within Nyamukaikuru Parish, Burora Sub-County, Kagadi District. The study investigated the local dynamics of water security, community structures, and environmental factors influencing water availability and quality. Mabuyemeru A Village served as the primary site for data collection, including community consultations, surveys and observational studies.

By concentrating efforts within this localized context, the research provided a distinct understanding of the feasibility of community-driven approaches tailored to the specific challenges and opportunities present in Mabuyemeru A and its immediate neighbourhood. This targeted geographical scope ensured a detailed analysis of the village's water security issues and facilitates the development of contextually relevant recommendations for sustainable interventions.

Source: Author's own

1.7.3 Time scope

The time scope of this research encompassed both a retrospective analysis and a prospective outlook. Retrospectively, the study reviewed historical data and past initiatives related to water management in Mabuyemeru A Village to understand previous challenges, successes, and shortcomings. This retrospective analysis provided valuable insights into the evolution of water security issues and community responses over time. Prospectively, the research focused on evaluating current conditions and projecting future trends in water accessibility, considering factors such as population growth, climate change, and socio-economic development. By incorporating both historical context and future projections, the study aimed to offer a comprehensive assessment of the feasibility of community-driven approaches for enhancing water security in Mabuyemeru A Village, taking into account the temporal dynamics shaping the local water landscape.

Source:(Sara N. Naicker, July 26, 2017)

1.8 Conclusion

This chapter provided a clear understanding of the context, objectives, scope and significance of the study on community-driven approaches for water accessibility in Mabuyemeru A Village.

1.9 Delimitation of the study

I got facilitation in terms of money from African Rural University for transport, airtime and for the entire study.

I was guided by the Faculty Supervisor and Field Mentor

The community members and the leaders provided information that the study team needed to answer the study questions. The study team also helped the researcher in the process of study.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This chapter dealt with the historical framework, theoretical framework, conceptual framework and was comprised of the literature review that focuses on the objectives of the study in chapter one.

2.1 Historical framework

The historical framework involved studying similar initiatives in comparable contexts to analyse strategies, challenges, and outcomes of community-driven water accessibility projects. By examining these patterns, the researcher identified successful practices, lessons from failures, and critical factors like community participation, governance structures, technology, and sustainability.

The historical framework of global water scarcity included increasing demand due to population growth and industrialization, coupled with pollution, inefficient water management practices, and climate change impacts, leading to significant challenges in ensuring sustainable access to freshwater resources worldwide.

In Africa, water scarcity had been historically influenced by factors such as rapid population growth, inadequate infrastructure, environmental degradation, and periodic droughts, posing significant challenges to water availability and management across the continent.

In Uganda, water scarcity historically stems from factors such as population growth, uneven distribution of water resources, environmental degradation, and inadequate infrastructure, exacerbating challenges in ensuring reliable access to clean water for its population.

In the present world, water scarcity is exacerbated by rapid population growth, urbanization, industrialization, agricultural demands, pollution, climate change effects such as droughts and erratic rainfall patterns, and inadequate infrastructure, collectively straining global water resources and access.

In present-day Uganda, water scarcity persists due to factors including population growth, climate variability, pollution, inefficient water management, and inadequate infrastructure, posing on-going challenges to ensuring sufficient access to clean water for its people.

Source: Kayaga, S., & Smout, I. (2011).

2.2 Theoretical framework

In any research, there is need for theoretical frame of analysis in which theories are used to explain the issue under study. In opinion of this, the theory of social adaptive capacity was reviewed as theoretical frame of reference for this study.

Adaptive capacity demands that a governing body is intentional in its management of change and is able to rearrange internal processes and procedures in response to changing internal or external conditions (Gunderson et al. 1995).

Participatory Development Theory: This theory stresses the importance of involving community members in the planning, implementation, and evaluation of development projects. It ensures that the solutions are tailored to the community's specific needs and conditions. Participatory approaches can lead to more sustainable and accepted outcomes.

Source: Chambers, R. (1994).

This framework aligns well with the focus on community-driven approaches, emphasizing sustainable and participatory development. It provides a comprehensive lens to study the practicability and effectiveness of such approaches in improving water accessibility in Mabuyemeru Village.

However, even with community participation, powerful actors can influence water resource allocation, leading to inequitable distribution and exclusion of marginalized groups.

Additionally, there's often a disconnection between local knowledge and the technical expertise needed to tackle water issues like scarcity. Relying solely on local knowledge may not provide sustainable solutions and communities may lack the resources or expertise to implement effective systems. Therefore, Chambers' theory also doesn't account for large-scale factors like climate change, which can exacerbate water challenges. In summary, while Chambers' theory has

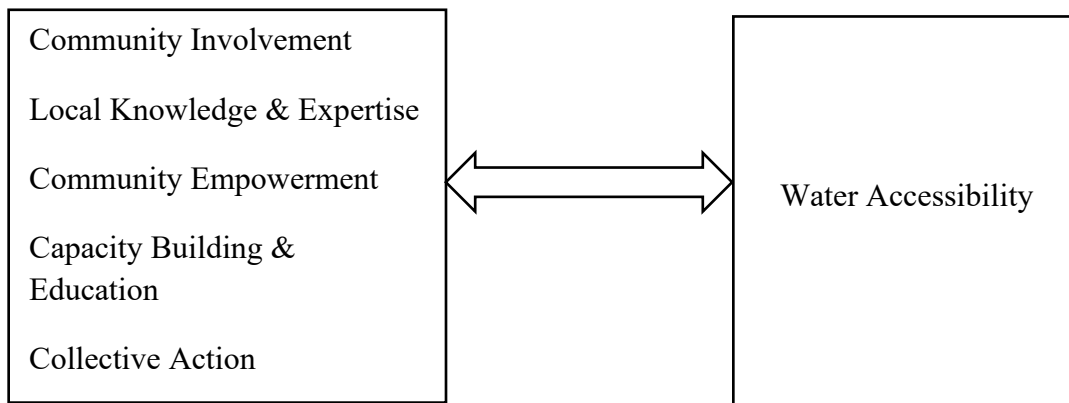
contributed to community-driven development, challenges such as power imbalances, the need for technical expertise and external factors like climate change limit its effectiveness in ensuring equitable water access. A more integrated approach is needed to address these gaps.

2.3 Conceptual framework

A conceptual framework on evaluating the feasibility of community-driven approaches for enhanced water security in Mabuyemeru A Village

2.3.1 Diagram one

Independent Variables Dependent Variables



2.3.1.1 Explanation of Diagram one:

Degree of local participation in decision-making and actions to improve water systems. More involvement often leads to better access.

Use of indigenous and local knowledge for managing water resources and improving systems. A higher integration of local knowledge can improve water access.

The ability of communities to manage and control their own water resources. Empowerment can lead to sustainable and reliable water access.

Training and educating community members on water management and maintenance. This can increase long-term accessibility by creating informed and capable local managers.

Coordination among community members to implement and sustain water access projects. Collective efforts often result in improved infrastructure and access.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter clarified the methodology adopted for the study. The research considered using mixed-methods approach that combined qualitative and quantitative techniques to gain a comprehensive understanding of community participation. It consisted of the research design, context of the study area, study population, sample and sampling techniques, method of data collection, and methods of data analysis.

3.1 Research Design

The research was participatory integrating both qualitative and quantitative methods to comprehensively assess the practicability of community-driven approaches. A mixed-methods approach was most suitable for this study.

Qualitative methods such as in-depth interviews with key stakeholders including community leaders, local government officials, and residents provided insights into current water security challenges, existing initiatives, and community perceptions of potential solutions. Focus group discussions with community members further elucidated their concerns, priorities, and preferences regarding water security strategies. These qualitative methods employed purposive sampling to ensure representation of diverse perspectives within the village.

Source: Creswell, J. W., & Plano Clark, V. L. (2017).

On the quantitative side, structured survey questionnaires assessed quantitative metrics such as current water availability, quality, and accessibility, as well as gathered data on community attitudes towards different water management approaches. Additionally, quantitative measurements of water quality parameters and availability provided empirical data to complement the qualitative findings.

Source: Tashakkori, A., & Teddlie, C. (2010).

By employing a mixed methods design, the research benefited from the strengths of both qualitative and quantitative approaches, leading to a richer and more nuanced understanding of the practicability of community-driven approaches for water accessibility in Mabuyemeru.

3.2 Study Population

According to the report from the Chairman LCI Mabuyemeru A Village during my practicum, the village had a population of 515 people, with 201 men, 188 women and 126 children. The sample of the study was drawn from this population.

3.3. Sample Size and Sampling Technique

The study engaged purposive sampling and simple random sampling design that gave equal opportunity to appropriate participants in order to avoid biased findings.

The key informants were selected using purposive sampling to give an equal chance to community for being selected. (Datta, 2018).

The sample size was drawn from 389 participants, having subtracted 126 children of less than 12 years of age.

The Slovin's formula was used to determine the size of the sample to be included in the study

$$n = \frac{N}{1 + N(e^2)}$$

Where by: n was unknown number, N was known (population), e^2 was known and 1 was a constant.

$$n = ? \quad N = 389, \quad e^2 = 0.05 \text{ and } 1$$

$$n = \frac{389}{1 + 389(0.05^2)}$$

$$n = \frac{389}{1 + 389(0.0025)}$$

$$n = 197.2117$$

$$\approx 197$$

3.4. Methods and tools for Data Collection

Both qualitative and quantitative methods of data collection were used to collect data from the respondents during the conduct of the research

3.4.1 Community dialogue

This method was used to enrol different stakeholders in the study proposal in order to collect the required data through simple random sampling.

3.4.2 Focused group discussions

The study used focus group discussions in order to generate an interactive discussion amongst community members and this allowed the research team to develop further insight about the study. This was done amongst groups that is to say five men and five women and all responses were valued and appreciated.

3.4.3 Interviewing method

This method was used to collect data directly from ten participants through face to face question and answer process. The study used an interview guide which contained the relevant questions which the interviewer needed answers for. It was used on the key informants in order to have vast information in relation to the study.

3.4.4 Questionnaire survey

The questionnaire was the tool mainly used together with oral interview. The questionnaires were both open and close ended and were used on community members.

3.4.5 Participatory observation

The research team observed the activities community members are involved in to enhance water accessibility and assessed their effectiveness in Mabuyemeru Village.

3.4.6 Recording method

The research team used a note book, flip charts, a pen and markers to jot down the information that was given by the community members; a smart phone was also used to take photos during the study.

3.5 Procedure

The researcher got an introduction letter from the Faculty of technologies for Rural Transformation of African Rural University after the approval of the research proposal. The letter was used to introduce her to the local authorities to seek further collaboration with LCI and the community members of Mabuyemeru A Village.

A community dialogue was held with an aim of enrolling different stakeholders in the study proposal. They were enlightened on the objectives and study questions. The community members added more questions in the questionnaire and interview guide.

These questions included those that probed the major challenges facing water accessibility in the village and the main obstacles to obtaining resources for water accessibility

The community members selected a team of 9 people who would be involved in the study (data collection, analysis and implementation of actions). The study team was then trained on how to carry out field study using the questionnaire. Data was collected and analysed with the community members who later implemented the actions that they had recommended during the study.

3.6 Data analysis

All the participants' opinions were obtained from the field, cleaned, sorted, matched and coded. Descriptive statistics in the form of pie charts and contingency tables was used to describe the data. The data was summarized, entered and analysed using the Statistical Package for Social Sciences (SPSS) by the study team. The results were presented on frequency distribution tables, bar graphs and pie charts.

3.7 Ethical considerations

The researcher introduced herself to the Chairman LCI and asked for community collaboration with her in the study from his Village. She also asked permission from the respondents before asking those questions and taking photos. According to Cooper and Schindler (2013), three main issues need to be considered when conducting a study. They are; falsification of results, data reliability, and confidentiality. The study team upheld secrecy of the respondents and assured them that the information would be used for their own good in improving water accessibility.

3.8 Conclusion

Together, these components formed a strong framework for the practicability of community-driven approaches to enhance water security in Mabuyemeru A Village, laying the groundwork for the subsequent chapters' findings and conclusions.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND DISCUSSION

4.0 Introduction

This chapter presents, analysis as well interprets the data collected in the process of this study.

The chapter is divided into two sections; section A covers the Demographic Data of the participants, section B deals with water accessibility in the village, community involvement which determined the effectiveness of the community driven approaches, challenges people face in implementing community strategies/approaches for water accessibility and the solutions/actions recommended and their implementation (sustainability). The field data has been summarized and presented in tables, graphs, pie charts and finally explained in details.

4.1 SECTION A: DEMOGRAPHIC DATA OF THE PARTICIPANTS

The tables below consist of information regarding the basic characteristics of the participants including gender, age, marital status and occupation of the community members and key informants who participated in the study.

Table 4.1.1: Gender Distribution of the participants

Gender	Frequency	Percentage (%)
Male	80	40.6
Female	117	59.4
Total	197	100.0

Source: field data, 2024

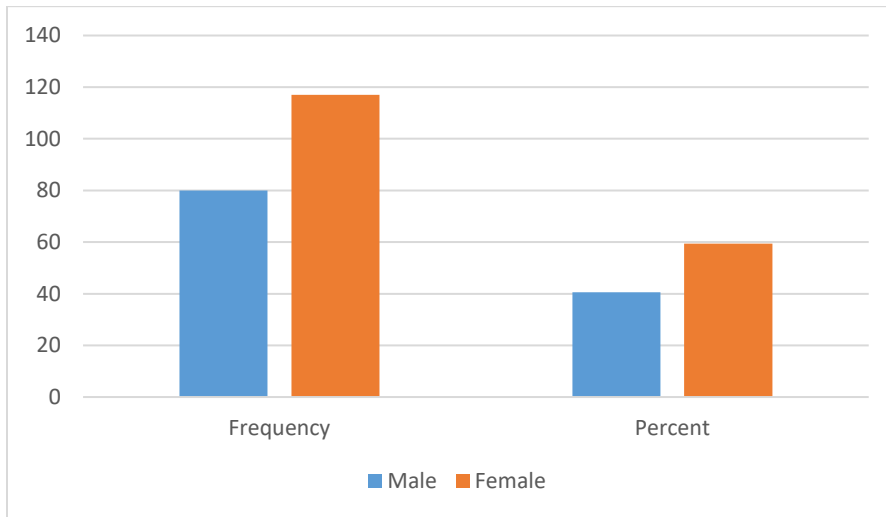
The above table reveals that the total participants' population was 197 while the majority were female, representing 59.4% and male constituting 40.6%.

Generally, women are often a focus in water-related issues due to a combination of biological, social, cultural and economic factors that contribute to their disproportionate vulnerability to water issues. Biologically, women's bodies have a higher water content, which makes them more susceptible to dehydration and related health problems. Socially and culturally, expectations around gender roles lead to women taking on a greater responsibility for household water

management and hygiene, particularly in communities where water scarcity is a challenge. In some regions, economic factors may further exacerbate these issues, as women may have limited access to resources or decision making power related to water management.

Collectively, these factors contribute to women’s unique experiences and perspectives on water related challenges, making them an important focus in research on these issues.

Figure 1: Bar graph showing gender distribution of the participants



Source: Analysis by researcher, 2024 using SPSS

Table 4.1.2: Age category of the participants

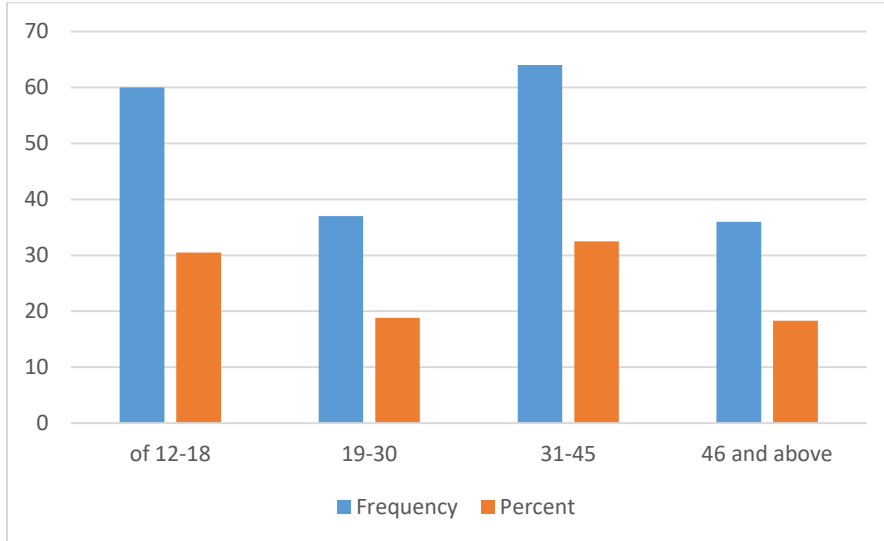
Age Category	Frequency	Percent (%)
12-18	60	30.5
19-30	37	18.8
31-45	64	32.5
46 and above	36	18.3
Total	197	100.0

Source: field data, 2024

The above table reveals that 32.5% of the participants’ population was between 31-45 years of age ranking as highest, 30.5% was between the ages of 12-18, 18.8% was between and 18.3%

was between 46 and above. It was thus crucial to find out the age of those who were interviewed in order to confirm the authenticity of the results.

Figure 2: Bar graph showing age category of the participants



Source: Analysis by researcher, 2024 using SPSS

Table 4.1.3: Marital status of the participants

Marital Status	Frequency	Percent (%)
Single	78	39.6
Cohabiting	42	21.3
Married	54	27.4
Widow/ Widower	23	11.7
Total	197	100.0

Source: field data, 2024

The table above reveals that, 27.4% of the participants were married, 21.3% were cohabiting 39.6% were single and the majority fell in the age category of 12-18. However, there are others in the category of 19-30 years of age who are still single. 11.7% of the respondents were widows or widowers. By way of analysis, the cohabiting and married people mainly falling in the range of 30-45 had more reliable knowledge on community strategies for water accessibility.

Table 4.1.4: Occupation of the respondents

Occupation	Frequency	Percent (%)
Farmer	109	55.3
Business owner	8	4.1
Government official	2	1.0
Others specify	12	6.1
None	66	33.5
Total	197	100.0

Source: field data, 2024

The table above shows that, 55.3% are farmers, 33.5% do not have jobs while some are students, 6.1% engage in other activities like boda boda riding and tailoring while, 4.1% are business owners and 1.0% are Government officials (key informants).

This revealed that the majority of the respondents are farmers, thus justifying the relevance of the study on community approaches for water accessibility as it can contribute to agricultural productivity, food security, health and well-being, economic resilience and environmental sustainability.

4.2 SECTION B: Descriptive Statistics

The tables below consist of information regarding the level at which community members access water, distance covered to access water, community involvement and effectiveness of community-driven initiatives for water accessibility, major challenges facing water accessibility and, the solutions to be made to enhance the practicability of community-driven approaches for water accessibility in Mabuyemeru A Village.

Table 4.2.1: Accessibility

Response	Frequency	Percent (%)
Yes	0	0
No	197	100.0

Source: field data, 2024

The table above shows that 197 participants, constituting 100% do not access clean water in their homes. Therefore, none accesses clean water.

In relation to Objective (I), which aimed to assess the current water accessibility in the village, revealed a critical issue as all participants reported that they did not have access to clean water in their homes. This highlighted the urgency of addressing this issue. To effectively tackle that, it was essential to explore the reasons behind the lack of clean water, where the major ones mentioned by the participants were, inadequate financial resources, skill and knowledge gaps and inadequate infrastructure among others.

Basing on findings, community-driven approaches can help improve water accessibility by fostering community engagement and participatory planning, water conservation, financial sustainability, continuous monitoring and evaluations among others.

Table 4.2.2: Distance covered to access water

The table below shows the distance covered by the residents of Mabayemeru A Village to access water in their homes.

Distance	Frequency	Percent (%)
Less than a kilometer	55	27.9
1 kilometer	89	45.2
2 kilometers	53	26.9
Total	197	100.0

Source: field data, 2024

As can be seen from the above table, 55 participants (27.9%) cover less than a kilometre to access water from the nearest source, while 89 participants (45.2%) cover a kilometre and then, 53 participants (26.9%) cover two kilometres to access water. There are no participants that cover more than two kilometres.

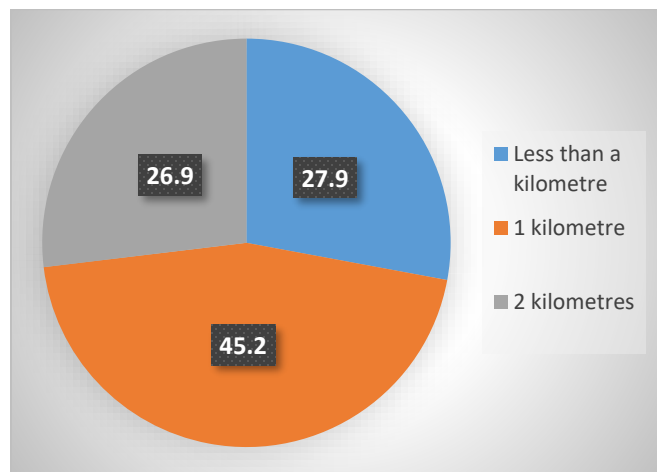
Grounding on findings, long distances can be a challenge to water accessibility by increasing the time and effort required to fetch water, potentially limiting availability and exacerbating water-related health issues.

During the interview exercise, the Chairman Local Council III of Burora Sub County gave in his concern, “In many cases, women and children bear the brunt of this task, often walking for hours daily to collect water. This not only exposes them to potential dangers such as wild animals or accidents, but also puts a strain on their physical and mental health.

Additionally, water inaccessibility has implications for our agricultural sector. With water being a crucial input for farming, the long distances to reach water sources have made it difficult for our farmers to irrigate their crops. This in turn, has led to a decrease in crop yield, negatively affecting food security and income generation for our community members.” He said

Source: field data

Figure 3: Pie chart showing distance covered to access water



Source: Analysis by researcher, 2024 using SPSS

Table 4.2.3: Community initiatives for water accessibility in Mabuyemeru A Village

Community Initiative	Frequency	Percent (%)
Rainwater harvesting	142	72.1
Spring protection and rehabilitation	42	21.3
Borehole drilling and well construction	13	6.6
Total	197	100.0

Source: field data, 2024

Table 4.2.3 above indicates that 142 participants (72.1%) were aware of rainwater harvesting as one of the community driven approaches for water accessibility while, 42 participants (21.3%) were aware of spring protection and rehabilitation and, 13 participants (6.6%) were aware of borehole drilling and construction. Therefore these were the community initiatives that were in the village and that members were practicing.

In line with Objective (II), it revealed a mixed level of community involvement. While the majority of community members rely on rainwater harvesting, only a small portion participates in spring protection and rehabilitation (21.3%) and an even smaller portion in borehole drilling and construction (6.6%). This suggested that there is room for improvement in community engagement and knowledge sharing to enhance the overall effectiveness of these water management practices. Additionally, exploring the reasons behind the varying levels of participation and identifying barriers to community involvement was valuable in developing targeted interventions that promote a more inclusive and efficient water management system in the village. “More details below on Table 4.2.4 – effectiveness/ level of participation.”

Table 4.2.4: Effectiveness/ Level of participation.

This table shows the effectiveness of community initiatives for water accessibility/ How often community members participate in these initiatives.

Rainwater harvesting	Frequency	Percent (%)
Always	197	100.0

Source: field data, 2024

The study findings revealed that, all the 197 participants, constituting 100% practice rainwater harvesting as an approach to access water in their homes. However, these community members do not collect the rain water in water tanks, but rather, in usual saucepans, basins and other related vessels. The entire Village does not have a household with a water tank. More so, there is one household that is willing to construct a water tank but it has hopes of relocation in the near future and therefore, they decided to build it at their new home area.

Additionally, during research, the research team observed that two community members are eager to Join URDT Institute to learn the necessary skills for excavating and constructing water tanks. This demonstrates their commitment to finding sustainable solutions for water accessibility in their community, and it reflects their willingness to actively contribute to addressing this pressing issue.

With the knowledge and skills needed to improve water accessibility in Mabuyemeru Village, this in turn, could potentially lead to a more resilient and self-reliant community, capable of addressing its own needs.

Table 4.2.4.1: Spring protection and rehabilitation

Response	Frequency	Percent (%)
Never	139	70.6
Sometimes	58	29.4
Total	197	100.0

Source: field data, 2024

The table above indicates that 139 participants (70.6%) had never participated in spring protection and rehabilitation, whereas 58 of the participants' population (29.4) had sometimes participated.

Table 4.2.4.2: Borehole drilling and construction

Response	Frequency	Percent (%)
Never	185	93.9
Sometimes	12	6.1
Total	197	100.0

Source: field data, 2024

Table 4.2.4.2 shows that, 93.9% had never participated in borehole drilling and construction while, a frequency of 12 participants (6.1%) had sometimes participated in the initiative. Based on findings, this was because there was no technical expertise therefore, the biggest percentage did not participate in this initiative.

Table 4.2.5: Major challenges facing water accessibility in Mabuyemeru A Village

Response	Frequency	Percent (%)
Inadequate financial resources	38	19.3
Skill and knowledge gaps	46	23.4
Laziness of community members	11	5.6
Inadequate infrastructure	31	15.7
Limited access to funding and weak governance	9	4.6
Long distance	62	31.5
Total	197	100.0

Source: field data, 2024

Table 4.2.5 above shows that, the major challenge facing water accessibility in Mabuyemeru A Village is long distance accounting for 31.5%. This is closely followed by skill and knowledge gaps (23.4%), inadequate financial resources (19.3%), inadequate infrastructure (15.7%), laziness of community members (5.6%) and limited access to funding and weak governance (4.6%). This was because each participant was requested to highlight one critical challenge to water accessibility in their community.

Grounding on findings, long distances, can be a challenge to water accessibility by increasing the time and effort required to fetch water, potentially limiting availability and exacerbating water-related health issues. Refer to discussions of Section B, table 4.2.2.

Skill and knowledge gaps hinder water accessibility by limiting technical expertise, monitoring capacity, training, research, resource allocation and investment, ultimately affecting communities' ability to manage water resources effectively. Having used participant observation as an opportunity for gathering data, basing on the discussion from the Council meeting that was held on 15th October, 2024, the Sub County Chief urged Parish Chiefs, the Agricultural Officer and the Community Development Officer to help out community members through educating them on conservation methods such as rainwater harvesting, drip irrigation and reducing water wastage.

Inadequate financial resources impair water accessibility by limiting investments in infrastructure, maintenance and distribution, ultimately exacerbating water scarcity and inequity.

Furthermore, having attended the budget conference as an opportunity for data collection, the Sub County and District plan of the next fiscal year, 2025/2026 had a plan to provide funds for providing a borehole to Kayembe Village since it had not been given one before. However, Mabuyemeru was given its share some years back, though the water sources are still limited. This therefore indicates that water inaccessibility will still be a challenge since the money allocated each fiscal year is inadequate to provide to every Village in the Sub County. Hence, this calls for active participation and engagement by community members in other community-driven approaches like rainwater harvesting.

Furthermore, the Sub County was in the process of developing a five year development plan, where the research focused at collecting priorities of the community about water accessibility, which have been included in the Participatory Development Plan. This was therefore seen as a potential opportunity to build and increase health and sanitation in the community of Burora Sub County.

The UNICEF and WHO (2017) report, “Progress on Drinking Water and Sanitation: 2017 Update and MDG Assessment,” provides an overview of global progress towards achieving water and sanitation-related targets, specifically the Millennium Development Goals (MDGs).

The report highlights the challenge of inadequate financial resources in addressing water accessibility, particularly for the world’s poorest and most vulnerable populations. It emphasizes the need for increased investment in water infrastructure, maintenance and technology for improved water management and distribution.

Inadequate infrastructure limits the ability to efficiently transport, distribute and manage water resources, leading to unequal distribution and potential water scarcity. United Nations (2015), emphasizes the importance of clean water and sanitation as a Sustainable Development Goal (SDG) to ensure access for all and promote overall health and well-being.

Additionally, from the budget conference that was held on 04th November, 2024, the Sub County Chief stated that, “Our community lacks the necessary expertise to construct and maintain water resources. To address this, we are collaborating with our bosses at the District level to provide

technical assistance and training programs for local artisans, enabling them to build and maintain water infrastructure.” He added.

On top of that, when community members realized that they are key to their own development, they worked hand in hand and cleared two roads linking them to water sources and that was; Kituugu to Mabuyemeru-A (less than a kilometre) and Mabuyemeru Trading Centre to Kasuniko (one kilometre). This was done to increase accessibility since a well-maintained road provided easier access to water sources, which was crucial for the survival and wellbeing of the community.

Laziness of some community members holds back collective efforts to maintain, repair and improve water infrastructure leading to inadequate supply and poor water quality. This issue was raised by some community members. However, the underlying structure for this laziness is the community’s priority for wealth over any other thing. Most community members engage more so if an intervention is for financial benefit and this brings about “question of choice and priority”. Therefore, they need to have a fundamental choice as a community, because they have the energy that can be integrated to water accessibility in their community but it is channelled into other activities like farming from they hope for financial security.

This confirms that the issue of ignorance about the importance of water over wealth should be addressed since its essential for ensuring human survival, maintaining good health, environmental sustainability and cultural preservation. It is therefore possible to work for their well-being if they make a choice.

Additionally, the Chairperson LCI, Omuhereza Byamukama promised to actively engage everyone and reduce tendencies of laziness in the community.

Also, Molla, A. (2019) discusses the significance of community participation in sustainable water resource management, emphasizing the need for active involvement and shared responsibility to ensure water accessibility.

Limited access to funding and weak governance obstructs the development and implementation of effective water management strategies, infrastructure development and maintenance, eventually worsening water scarcity and inequality in access to clean water resources.

Furthermore, community members claimed that Sub County leaders are responsible for overseeing the administration and development of their region, including ensuring that essential services such as water access, are provided to their communities. Therefore, the community members expressed their concerns about limited access to funding and weak governance, which they believed were contributing to inadequate water accessibility in their village.

Additionally, the United Nations (2018), talks over financing water infrastructure challenges and opportunities, emphasizing the need for increased investments and innovative financing mechanisms, to address water scarcity and improve access to clean water. Additionally, the World Bank (2019), argues the need to mobilize \$4 trillion annually for financing sustainable development, including water resources and accessibility. Also, the Organisation for Economic Co-operation and Development (OECD) (2019), focuses on water governance, high lighting the importance of effective policies and institutions for sustainable water management and accessibility.

Table 4.2.5: Sustainability

The table below shows the solutions/improvements or changes to be made to enhance the practicability of community-driven approaches for water accessibility in Mabuyemeru Village.

Response
Community engagement and participatory planning
Financial sustainability
Capacity building
Continuous monitoring and evaluation
Water conservation

Source: field data. 2024

As can be seen from the table above, participants regarded community engagement and participatory planning, financial sustainability, capacity building, continuous monitoring and evaluation and water conservation as the solutions to the challenges facing water accessibility in Mabuyemeru A Village.

Based on findings, community engagement and participatory planning ensure local needs and perspectives are considered, leading to more effective and sustainable solutions. This was supported by ten participants that were interviewed saying that, “community members have a deep understanding of their village’s needs, geography and resources. Engaging them in the decision-making process ensures that the water access solution is tailored to their specific needs and this hence this gives them a sense of ownership.” On top of that, in line with the conceptual framework, on the independent variable of community participation and empowerment, which included willingness to participate, capacity for collective action and mechanisms for inclusive decision making, confirms that.

Robert Chambers, (1997). “Whose Reality Counts?” emphasizes the importance of community engagement and participatory planning for water accessibility, advocating for a shift from expert-driven approaches to inclusive, participatory methods that empower local communities. Participatory Rural Appraisal PRA techniques are highlighted, enabling active involvement in data collection, analysis and decision-making for more effective and sustainable solutions.

The endorsement of financial sustainability highlights the establishment and maintenance of infrastructure, resources and services needed for equitable water distribution and management. For instance, the act of collecting money worth UGX 2000 from each household on every last Saturday of the month enabled the community repair the borehole that was not functioning for 3 years back in the time. Further, as concerned citizens of Mabuyemeru village, this act enables them fix easy damages. Global Water Partnership (GWP), (2018), stresses the importance of integrated water resource management, which includes equitable water accessibility, to achieve sustainable development and ecosystem protection.

Capacity building empowers locals with knowledge and skills, promoting sustainability and long-term effectiveness. This also leads to increased self-confidence and a sense of responsibility which can encourage the members to take charge since they are key to their own development.

Molle, F., Tacon, P. (2007) discuss the concept of water poverty, linking it to rural livelihoods and challenges. They emphasize the importance of understanding the interconnections between water, livelihoods and socio-economic factors to address water accessibility issues effectively.

Continuous monitoring and evaluation ensures community-driven approaches for water accessibility are effective, adaptive and sustainable by providing feedback and facilitating data-driven decision-making. Robert Chambers, (2008) further stresses the importance of thinking and working politically, to ensure the success of community-driven approaches for water accessibility. He highlights the need for continuous monitoring and evaluation to track progress, identify challenges and adapt strategies accordingly. This helps in making the approaches more effective, responsive and sustainable.

Water conservation guarantees adequate water resources for everyone and supports long-term sustainability. Therefore, focus was placed on efficient water use, rainwater harvesting, raising awareness, and encouraging participation in community programs. Some participants confirmed during data collection that by implementing water conservation practices, community members could enhance their resilience to environmental changes like droughts, population growth, or climate change. Additionally, they mentioned that certain trees in the village, known for their water-storing abilities referred to as "succulent trees" would be protected to help retain water for extended periods.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents conclusion and recommendations guided by the objectives of the study. The overriding purpose of this study was to assess the practicability of community-driven approaches for water accessibility in Mabuyemeru A Village.

5.1 Conclusion

In line with objective (I), based on the findings from participants in Mabuyemeru A village, it was concluded that the current water accessibility in the village is inadequate. The participants reported not having access to clean water in their homes, highlighting a major issue with the availability of safe and dependable water sources. This underscored the urgent need for improvements in water infrastructure to safeguard the health and well-being of the village's residents.

In line with objective (II), the data collected indicated that communities adopt various strategies for water accessibility that is to say; rainwater harvesting, spring protection and rehabilitation, borehole drilling and construction, as seen in chapter four under section B, Table 4.2.3. In this study, effectiveness of these community strategies for water accessibility was determined and it was revealed that rainwater harvesting is the most practiced initiative.

Based on findings, the study also identified several challenges hindering water accessibility, including long distances, gaps in skills and knowledge, limited financial resources, inadequate infrastructure, laziness of some community members and limited access to funding and weak governance. In relation to objective (III), a deeper analysis was conducted on potential solutions to these challenges. During data collection, each participant provided suggestions they believed could enhance the effectiveness of community strategies for water accessibility. These solutions were discussed earlier in Chapter Four, table 4.2.5. Furthermore, financial sustainability played a key role in improving water accessibility in Mabuyemeru A Village, as the community collected funds on the last Saturday of each month to repair a borehole, ensuring its maintenance.

These findings underscore the importance of collaborative, community-driven approaches for water accessibility. The diverse range of proposed solutions indicated a holistic understanding of the complexities involved, with an acknowledgment that effective community driven initiatives require the active involvement of both the community and external stakeholders.

5.2 Recommendations

To the Government

Study should be conducted on community-driven approaches for water accessibility in Kagadi District so as to identify areas that require improvement and to identify the best strategies to be adopted by both the community members and the Government in order to enhance water accessibility in the country.

The government should allocate funds to develop and maintain essential water infrastructure, such as boreholes, wells to ensure reliable access to clean water in rural communities. Also, prioritize and increase funding for water accessibility initiatives, particularly in rural areas, through grants or subsidies to support community-driven approaches.

To the Sub County leaders of Burora

There is need to organize community workshops and training sessions to raise awareness on the importance of water conservation, sanitation and hygiene. Developing a culture of responsible water usage will contribute to sustainable water accessibility in the long run.

Sub County leaders should coordinate efforts between the local government, community members, NGOs, and other stakeholders to develop integrated strategies for improving water accessibility in Mabuyemeru A Village. And, regularly assess the effectiveness of water accessibility projects to ensure they meet the needs of the community and are being implemented effectively. This includes checking that resources are used appropriately and that solutions are being sustained over time.

To the community of Mabuyemeru A Village

There is need to strengthen the Water Management Committee that is already in place comprising of community members, local leaders, and relevant stakeholders. This committee is responsible for overseeing the planning, implementation and monitoring of water accessibility projects. Also, assign responsibilities to community members for regular maintenance of water infrastructure. This will ensure that water accessibility remains consistent.

The community members should actively engage in water management projects by participating in regular maintenance, decision-making, and monitoring processes to ensure the sustainability of water sources.

Also, community members should continue pooling financial resources for water infrastructure maintenance, and consider exploring additional income-generating activities to support long-term water sustainability.

To African Rural University

As an academic institution, African Rural University should contribute to policy advocacy by generating evidence-based recommendations on improving rural water access. The university could compile research findings and propose policy changes to local governments or national authorities, promoting sustainable practices and investments in water infrastructure.

African Rural University should establish student-led projects or research initiatives that directly address water accessibility issues in rural areas similar to Mabuyemeru A Village. These initiatives could serve as practical learning experiences while also contributing to solving real-life experience of communities.

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Appendix (I): Questionnaire

We are conducting a study on the practicability of community driven approaches to water accessibility as a way of learning and improving the water situation in Mabuyemeru A village. We want to understand the perspectives or opinions of various people so as to improve water accessibility to community members. Please feel free to answer the questions below.

SECTION A

- **Social-Demographic Data of the participant**

- **Sex**

Male

Female

- **Age Category**

12-18

19-30

31-45

46 and above

- **Marital Status**

Single

Married

Widow/widower

- **Occupation**

Farmer

Others specify.....

Business owner

None

Government official

SECTION B

1 Water Accessibility:

a. Do you have access to clean water in your home?

- Yes No

b. How far do you travel to access clean water? (In meters/kilometers)

- Less than a kilometre 2 kilometres
 1 kilometre More than 2 kilometres

2 Community Involvement:

a. Are you aware of any community-driven initiatives for water accessibility in Mabuyemeru A Village?

- Yes No

b. If yes, please describe the initiative(s) briefly.

- Rain water harvesting
 Spring protection and rehabilitation
 Repairing water sources available

c. What is the effectiveness of these initiatives? How often do you participate in these initiatives?

Rain water harvesting

- Never Always

sometimes

Spring protection and rehabilitation

Never

Always

Sometimes

Borehole drilling and well construction

Never

Always

Sometimes

3 Challenges:

2 In your opinion, what is one major challenge facing water accessibility in Mabuyemeru A Village?

Inadequate financial resources

Inadequate infrastructure

Skill and knowledge gaps

Limited access to funding and weak governance

Laziness of community members

Long distance

4 Sustainability:

a. Do you believe that community-driven approaches can ensure the long-term sustainability of water accessibility in Mabuyemeru Village?

Yes

No

Not sure

b. What solutions/improvements or changes do you think should be made to enhance the practicability of community-driven approaches for water accessibility in Mabuyemeru Village?

.....
.....
.....

c. Are there any additional comments or suggestions you would like to share?

Yes

No

d. If yes, suggest them in the gaps below

.....
.....

Thank you very much for your time and contribution to this research.

Appendix (II): Interview Guide

We are conducting a study on the practicability of community driven approaches to water accessibility as a way of learning and improving the water situation in Mabuyemeru A village. We want to understand the perspectives or opinions of various people so as to improve water accessibility to community members. Please feel free to answer the questions below.

Section A: Demographic Data

- Sex
- Age
- Marital Status
- Level of Education
- Occupation

Section B

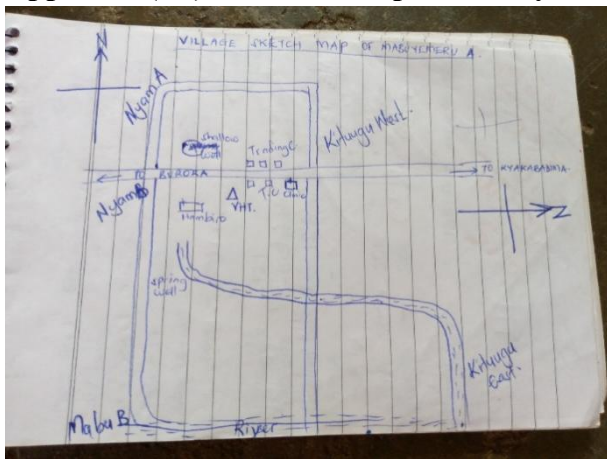
Practicability of Community-Driven Approaches for Water Accessibility in Mabuyemeru A Village

1. How would you describe the current state of water accessibility in Mabuyemeru A Village?
2. What challenges do residents face in accessing clean water?
3. Are there any community-driven initiatives for improving water accessibility in the village? If yes, can you provide some examples?
4. How involved are residents in the design/planning and implementation of these initiatives? Do you participate in any of them?

5. What is the effectiveness of existing community-driven water management practices?
6. What do you see as onemajor challenge in implementing community-driven approaches for better water accessibility?
7. What improvements or changes do you think should be made to increase the practicability of community-driven approaches for water accessibility in Mabuyemeru A Village?
8. Are there any additional comments or suggestions you would like to share?

Thank you very much for your time and contribution to this research.

Appendix (III): A sketch map of Mabuyemeru A village



Appendix (IV): Enrolling stakeholders in the research proposal and selection of the research team





Appendix (V): During transect walk to the water sources





Appendix (VI): During data collection



Appendix (VII): Actions taken to improve on water accessibility

	
<p>During road clearance from Mabuyemeru A trading centre to Kasuniko (1kilometre)</p>	<p>Borehole that was repaired after collection of money from community members</p>

	
<p>During tank excavation at Mr. Monimpa Aloysius and Mrs. Happy's home (9*16 feet)</p>	<p>A complete tank at Miss. Biira Grace's home (9*16.5 feet)</p>

Appendix (VIII): Table of summary of results

Facility worked on/ service delivered	Name of facility/ location of place	Type of work done	Quantity/ Quality	Participants	Comments
Revisiting and	Family	Revisited and	3 families	4 men, 3 women	Well

formulating family, group and community vision	Group Community	formulated better visions	1group 1 village (Mabuyemeru)	and 7 children 27 women 24 women and 17 men	formulated
Roads	Kituugu to Mabuyemeru-A Mabuyemeru trading center to Kasuniko	Digging trenches and blocking potholes Slashing	Half a kilometre 1 kilometre	20 men and 3women 15 men and 2 women	Well cleared
Borehole	One borehole in Mabuyemeru A	Collecting UGX2000 from each member of the community every last Saturday of the month	1 water source repaired after collecting UGX 168,000	84 households	Well repaired after 3 years of breakdown

Underground water tank	Burora Sub County	Digging and construction	7 complete 6 under process	13	Well done
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