## INFLUENCE OF PARTICIPATORY MONITORING AND EVALUATION PROCESS ON IMPLEMENTATION OF COMMUNITY BASED WATER PROJECTS IN KENYA: A CASE OF KAICHAKUN SPRING PROTECTION LAIKIPIA WEST SUB-COUNTY, LAIKIPIA COUNTY

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A Research Project Report Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Arts in Project Planning and Management of the University of Nairobi

2021

## **DECLARATION**

#### DECLARATION

This research project report is my original work and has not been presented to any other University for any award.

Signature..... 

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This research project report has been submitted for examination with my approval as University Supervisor.

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## DEDICATION

This research project is dedicated to my beloved parents Mr. Lewis Nduati Gicharu and Mrs. Anastasia Wairimu Waruiru for their financial and moral support throughout the period of my studies.

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## LIST OF ACRONYMS AND ABBREVIATIONS

- **CBOs** Community Based organizations
- EU European Union
- MDG Millennium Development Goals
- NGOs Nongovernmental organizations
- UN United Nation
- UNDP United Nations Development Programme
- UNEP United Nations Environment Programme
- UNICEF- United Nations Children's Fund
- WHO World Health Organization

#### ABSTRACT

Water is the second most fundamental ware for life after air, it's a nurturing force and in that capacity, its shortage demands our complete consideration. In Laikipia West, Laichakun West Sub-County, this study is aimed at examining the effect of the participatory monitoring and assessment method on water implementation. The purpose of this study was to establish the impact of participatory water project planning in Laikipia West Sub-County on community-based water projects; to establish how the participatory decision-making process in M&E affects the implementation of community-based water projects in Laikipia West Sub-County. Descriptive transversal survey design and research design for correlation were employed in this study. For this study, the aim was to have 158 registered members and 24 monitoring and evaluation members of the Kaichakun Spring Protection Water project. The samples were collected via systemic random sampling for the research and the monitoring staff of 123 heads of households from the target population. The data were obtained using surveys and phone interviews as the principal tools for studying the data. In order to create frequency distributions, percentages, median and standard deviation, the data was analyzed using the SPSS (Statistical Social Sciences Package 25) to help the scientist respond to the study questions. The data were submitted in tabular form. Descriptive data show a medium and standard 3.96 and 1.08 deviation respectively in participatory project planning for M&E. Further descriptive statistics portrayed that participatory stakeholder identification for M&E indicated an influence on implementation of community-based water projects (M=3.82, SD=1.14), participatory decision-making for M&E with a mean and standard deviation of (M=3.91, SD=1.10) on implementation of community-based water projects and budgetary allocation for M&E against the dependent variable implementation of communitybased water projects with a mean and standard deviation of 3.89 and 1.14 respectively. The study therefore concluded the predictor variables participatory project planning for M&E, participatory decision-making for M&E, participatory stakeholder involvement for M&E and budgetary allocation for M&E had an influence on implementation of community-based water projects. The engagement of the local community at all levels of Community-based water projects is vital to ensure that community-based water projects are implemented. Further the researcher recommended that the government and other stakeholders should seek for community engagement to ensure the continuity of the project in the long run.

#### **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

Water is the second most essential commodity for life after air, it's a life-giving force and as such, its scarcity demands our full attention. Millennium Development Goal 7C aimed to reduce the proportion of people without sustainable access to safe drinking water by 50% by the end of the decade. Over 1.2 billion people require clean water today, and 5 million people die every year from water-borne illnesses or contamination. Approximately 1.8 billion people would live in countries or areas with a severe water shortage, according to the World Water Assessment Program (WWAP, 2012).

26.3 percent of the world's population does not have access to better water sources and must gather water from a distance from their houses to get it (WHO & UNICEF, 2017). A 2017 UN research found that water shortage affects more than 40% of the world population, and that number is expected to continue to increase. Despite the fact that much of Europe has easy access to water, vast regions of the continent are impacted by water scarcity and droughts. Approximately 11% of the European population and 17% of the EU territory suffer from water scarcity, according to the European Union (2010). America and Mexico are other territories of developed countries that are grappling with issues of water scarcity. Arid border region between the American Southwest and Mexico's northwest has long been a focus of attention due to water shortages and increasing human demands for water, according to Day et al., (2016).

Unlike countries in the developed world, Africa and other parts of Middle East countries are much more affected by water scarcity and water related issues. Maplecroft (2013) comments that water strain has now gotten outrageous in Africa and different pieces of Middle East with the most antagonistically influenced territories in the Gulf countries. UNDP (2013) adds that Middle East is awful to such an extent that it has now arrived at disturbing levels with desperate ramifications for human turn of events. Regardless of the extraordinary advancement made as of late in Sub-Sharan Africa,

adequate admittance to improved water sources stays far off for more than 33% of individuals. Despite the fact that admittance to improved drinking water expanded by 20 percent since 1990 to 2015 in Sub-Sharan Africa, the region has fallen short of achieving its MDG target of 74 percent access to improved drinking water. According to Ishrat, Kaitlyn, Inday and Smith (2016), about 32 percent of Sub-Sharan Africa population has no access to improved drinking water, with great variability across countries. Although water crisis affects all countries throughout Africa, some countries such as Congo, Libya, Djibouti, Liberia and Ghana are impacted more than others. Others stand at the risk of experiencing serious water shortage due to increased climate threatening activities. For instance, Uganda has made remarkable efforts to improve access to water since 1990 with 80% of Ugandan households having secured access to water as at the year 2017 (UNICEF & WHO, 2019). However, Irish Aid (2018) warns of significant future challenges to water infrastructure in Uganda due to climate change. Democratic republic of Congo is the Africa's most "water-rich" country but the country is facing an acute drinking water supply crisis. UNEP (2011) uncovers that only an estimated 26 percent of its population has access to safe drinking water, a rate that is well below the approximately recommended 60 per cent average for Sub-Saharan Africa.

Elsewhere in Africa, make progress toward access to water is genuine. Lastwell (2019) records that just around 19 percent of the populace in Nigeria approaches safe drinking water and individuals die from waterborne sicknesses like typhoid fever because of helpless water quality. The report further expresses that Libya experiences huge water shortage in spite of the fact that it's as of now looking for better water the executives rehearses. In different nations like Djibouti, water emergency is improving albeit in excess of 240,000 Djiboutian actually stays defenceless because of hunger, obliteration of harvests, joblessness, and the passing of cows because of an almost long-term dry spell. In Ghana, the story isn't unique. In spite of the fact that there are various effective projects in Ghana that are attempting to lessen the water emergency in Ghana, almost 6,000,000 individuals depend intensely on surface water for their everyday needs and

numerous individuals in Ghana experience the ill effects of water-related infection because of an absence of sterilization and cleansing techniques.

In Kenya, water shortage is largely pronounced in the rural areas and largely in the ASAL with renewable water per capita standing at 647m<sup>3</sup> against the recommended 1000m<sup>3</sup> by the United Nations recommended minimum (UNDP, 2019). Due to the fact that women and children in these areas are charged with finding water for household use, water scarcity has impacted schooling in these regions, since children miss important hours of school in order to find water for domestic use. As such, Kenyan government including our devolved units have come to acknowledge that access to water has a significant social and economic influence. As Pradeep (2016) points out, access to water impacts all elements of human development, including health, agriculture and education. In effort to address water crisis, the country has formulated a national water master plan 2030 and Acts of parliaments which are being implemented either through government agencies, NGOs, CBOs, corporate social responsibilities initiatives or community-based projects. Laikipia west sub-county is one of the areas in Kenya where water projects are intensively being implemented by the county government of Laikipia in collaboration with NGOs while others are being undertaken as community-based projects (Naik, 2016). Community based water projects are being implemented in various parts of the world to promote access to safe drinking water. Since their invention 40 years ago, billions of shillings have been spent on community-based projects around the world and they have been widely recognized in fostering social, economic and political enhancement. However, despite their wide recognition, there is a growing concern in Laikipia west sub-county over water projects that have stalled or failed completely to deliver the predetermined results. It is on account of this backdrop that this study seeks to establish influence of participatory monitoring and evaluation on implementation of community-based projects in Laikipia west sub-county with specific focus on Kaichakun Spring protection (Abdallah et al., 2014).

### **1.2 Statement of the Problem**

Kenya's population is rapidly growing and so is the demand for water in the country for both domestic and agricultural use. A sum of 47,564,296 people were listed during the 2019 enumeration, containing 23,548,056 males, 24,014,716 females and 1,524 intersex, denoting a growth rate of 2.2 percent with 32,732,596 speaking to population in country zones and 14,831,700 in metropolitan regions (KNBS, 2019). Kenya is a water-scarce country with an estimated total renewable water resource per capita of 692M<sup>3</sup> per year1 against the recommended minimum of 1,000m<sup>3</sup> per capita per year and the rate is projected to fall below the absolute water scarcity level of 500m<sup>3</sup> per year by 2030 due to population growth. Specifically, about 40 percent of households in Laikipia County still remain without access to clean water. Water scarcity has been a problem in Kenya for a long time, as only a small portion of the country's land is suitable for cultivation, and the climate is generally dry throughout the year. Women and children in certain ASAL regions spend up to 33 percent of their day carrying water from the nearest new water source in the scorching heat, according to the study's findings."

A number of government policies have been formulated, projects and programs are currently taking place in various parts of the country in efforts to address the existing water crisis (Abdallah et al., 2014). In addition, Nongovernmental organizations have come in to assist Kenya's government including the county governments to provide water solutions. Communities as well are taking collective initiatives to start community-based water projects in attempts to alleviate the predominant water shortage in the country. In the year 2018, the government of Laikipia County in collaboration with the community of Laikipia West Sub-County commenced on Kaichakun Spring water protection and distribution.

Despite the huge effort, including monetary allocations made on this project by the county government, community members and development partners, Kaichakun Spring water project has been experiencing major hurdles in its life cycle and has barely survived the implementation stage and as such, being classified as a stalled project. Wamalwa and James (2018) alludes that a project is basically regarded as

successfully implemented in the event that it is completed as per the stipulated time, in line with the budget set, meets the purpose to the community and ends up being accepted and utilized by the recipients for whom it was intended or meant for. If this challenge goes unaddressed, the county government of Laikipia risks to suffer social, economic and environmental loss including failing to realize its initial goal of becoming a water secure county, in a clean, safe and sustainable environment.

### **1.3 Purpose of the Study**

The purpose of this study was to establish the influence of participatory monitoring and evaluation process on implementation of community-based water projects in Kenya.

### 1.4 Objectives of the Study

The study was guided by the following objectives:

- To determine the extent to which participatory project planning for M&E influence implementation of community-based water projects in Laikipia West Sub-County.
- ii. To establish how participatory decision making for M&E influence implementation of community-based water projects in Laikipia West Sub-County.
- iii. To establish the extent to which participatory stakeholders' identification for M&E influence implementation of community-based water projects in Laikipia West Sub-County.
- iv. To determine how budgetary allocation for M&E influence implementation of community-based water projects in Laikipia West Sub-County.

### **1.5 Research Questions**

The study sought to answer the following research questions:

i. To what extent does participatory project planning for M&E influence

implementation of community-based water projects in Laikipia West Sub-County?

- ii. How does participatory decision making for M&E influence implementation of community-based water projects in Laikipia West Sub-County?
- iii. To what extent does participatory stakeholders' identification for M&E influence implementation of community-based water projects in Laikipia West Sub-County?
- iv. How does budgetary allocation for M&E influences implementation of community-based water projects in Laikipia West Sub-County?

## 1.6 Significance of the Study

For policy makers, beneficiaries, water funding organizations, and government entities working in water in Laikipia County, the research was expected to be important. The findings provide as valuable information for both the local community members who are responsible for protecting Kaichakun Spring, as well as the county-level local authority responsible for rural water supplies for residents of the greater Laikipia County.

They seek to improve the efficiency of project implementation, notably in the water sector in rural Kenya, by assisting with the development of policies as well as their execution. As a result, projects will be finished on schedule and according to the established goals. It is expected that the findings of this study will provide deep understanding about the influence of participatory project planning, participatory decision making, participatory stakeholders' identification and budgetary allocation on implementation of community-based water projects in Laikipia West Sub-County. Further, donors and other government partners may utilize results of this study to make decisions regarding support for similar projects in future. Moreover, this study forms the basis for further research and as such, benefiting other researchers and scholars.

## 1.7 Limitations of the Study

The main challenges during this study was the inability to secure the true status of the matter from the county government since they viewed this study as an investigative exercise in regard to allocation and utilization of public funds. This limitation was mitigated by making a prior brief to the relevant county officials about the aim of the study. Secondly, some respondents who had given up on this project and as such, they were reluctant to participate in the study terming it as a mere waste of time. This was mitigated by administering the data collection materials face to face to the respondents with a brief and prior explanation about the importance and purpose of the study and guaranteeing them of confidentiality.

#### **1.8 Delimitations of the Study**

This study was restricted to four variables only, namely: participatory project planning, participatory decision making, participatory stakeholders' identification and budgetary allocation. In addition, this study was focused only on Kaichakun water project in Igwamiti ward although the problem of implementation of community-based water projects is also occurring in the other parts of the Laikipia west sub-county. Further, the study sample was be drawn only from the household heads among the targeted beneficiaries of Kaichakun Spring water project. By setting these boundaries, the researcher managed preventing the study from extending beyond the intended scope, avoid subjectivity and increase efficiency of the study.

## 1.9 Basic Assumptions of the Study

The study assumed that participatory project planning, participatory decision making, participatory stakeholders' identification and budgetary allocation have an influence on implementation of community-based water projects. Participants were expected to be readily accessible, cooperate in filling out the questionnaires, and offer truthful responses that could be relied upon. In addition, it was also assumed that target beneficiaries of Kaichakun Spring water protection in Igwamiti about the project, will embrace the study and would not treat it as a waste of time on their part.

### 1.10 Definitions of Significant Terms used in the Study

**Participatory project planning for M&E**: Refer to problem identification, analysis, and selection of appropriate treatments from a variety of choices are all part of the stakeholder involvement process.

**Participatory Decision Making for M&E:** Refer to a creative process that gives ownership of decisions to the whole group and finding effective options that everyone can live with. The process entails participation in consultative meetings, individual responsibility, accountability and shared understanding.

**Participatory Stakeholders Identification for M&E:** An approach meant to collectively identify the parties relevant to a project and it is normally reflected through stakeholders' relations, ongoing negotiations, stakeholders' agreements and shared concerns.

**Budgetary Allocation for M&E:** this construct points to the amount of finances allocated for a community water project measured by the amount of financial allocation, availability of grants and loans and the revenue collection from the water resource users.

**Implementation of Community-based water projects:** Refers to a status of project execution within the stipulated time, budget, and purpose and gets accepted by the client measured by the number of households benefiting, effective use, and replicability, continuity of use and beneficiary's satisfaction.

**Community-Based Water Projects:** Refer to community initiatives established and built on members affected by water shortages coming together to find a common solution.

**Participatory Monitoring and Evaluation process;** means to monitor or evaluate community water projects by including a variety of stakeholders at various levels.

### 1.11 Organization of the Study

It is divided into five sections. Among the topics covered in Chapter One are the study's backdrop and issue statement, study's goal and objectives, and study's research questions, as well as the study's limits and delimitations, its relevance, its assumptions, and its organization. A literature analysis on participatory monitoring and evaluation procedures for community-based water projects is presented in Chapter Two. Additionally, the chapter provides a theoretical and conceptual foundation for this investigation. Chap. 3 is devoted to research methodology, which is comprised of the following: research design; target population; sample size; sampling procedures; research tools; validity and reliability of the instruments; data collection procedures; the data analysis techniques; ethical considerations; and operationalization of variables. The data analysis, presentation, discussion, and interpretation are all covered in the fourth chapter. The conclusion, recommendations, and ideas for further research are the emphasis of chapter five.

#### **CHAPTER TWO**

### LITERATURE REVIEW

## **2.1 Introduction**

This chapter contains review of literature based on the themes developed from the objectives of the study. It focuses on empirical and theoretical literature based on the variables of the study; participatory project planning for M&E, participatory decision making for M&E, participatory stakeholders' identification for M&E and budgetary allocation for M&E that formed the basis for thematic review. The chapter also contains a conceptual framework, knowledge gap and a summary of the literature review.

#### 2.2 Implementation of Community-Based Water Projects

Community projects are initiatives identified and implemented by community members in efforts to find solution to common problems facing them. Murphy, Franz and Callaghan (2016) review community-based projects as initiative born and implemented by community members. However, community-based projects are often limited due to factors such as age group, gender and income that determine, variables that define social identity of groups. Jackson (2011) observes that for groups to function appropriately, they must form an identity. Anchored on the constructivist view, community-based projects are born out interactions among members and solutions to challenges facing such projects are constructed out of regular interaction among the members. In the literature, community-based projects have gained center stage as a way to solve diverse community concerns. However, the ability of community members to actively participate in these interventions is the most essential factor in generating successful and long-lasting social change. Participatory development, according to Schirin (2010), is intervoven with community development, community-based organizations, and self-reliance. Despite this, prior research on community development have shown that community-based programs are not without their flaws and pitfalls.

According to Muhammad (2016), a community-based development effort in Kebbi-State, Nigeria has been a success or a failure depending on the information gathered. In order to complete the study, we used both secondary and primary sources of information. It was decided to distribute the CPRP yields across Kebbi-LGAs states based on an analysis of CPRP data and reports. An aggregate of 562 infrastructure sectors were executed over the 21 LGAs in the state speak to nine (9) infrastructure sectors and LGAs were ordered in the state into three classes dependent on venture execution. Findings of the study establish a shortage in the capacities of community members and as such asserting that schooling is a logical factor that decides achievement and failure of a community-based development project. Results further uncover that upgrading the degree of instruction of helpless networks improves their aptitudes and pay and consequently their capacity to partake and improve their personal satisfaction.

In their investigation on community-based conservation in overseeing mangrove restoration in Perak and Selangor, Malaysia, Said, Omar and Abra (2014) see that lion's share of respondents in study region are eager to partake in mangrove recovery. In any case, discoveries uncovered that neighborhood association in mangrove protection programs needs to reinforce their abilities. Furthermore, public mindfulness and examination endeavors ought to be made at town, area and state levels and force and duty be shared between the strategy producers and NGOs. During the examination, both quantitate and subjective strategy were utilized and information was gathered utilizing polls on an example of 377 family units containing Malay and Chinese families. In the subjective information assortment, sixteen key-source interviews were led from various gatherings including government official, head of town, neighborhood NGO, worldwide NGO and contractual worker of mangrove replanting acquired through purposive and snowball examining strategy.

Anthony (2020) directed an examination in the rustic zones of Mbeere locale in Kenya to look at maintainability Issues confronting Community Based Projects in agricultural nations regarding Kenya. Overview research configuration was embraced for the investigation and an example 36 Project Steering Committee individuals and 56

network venture individuals were chosen from four fundamental Community-Based-Projects. Surveys were directed to the respondents and information dissected unmistakably. Results show that the significant issues confronting these network-based ventures are identified with venture the executives' cycles, neighborhood and group initiative and financing issues.

Mansuri and Rao (2004) revealed that community-based and driven development constitutes a significant component of society's development aid in their critical evaluation of community-based and driven development. According their review, most community-based developments or projects are dominated by the elite and the projects are characterized by poor quality particularly in populations with high levels of inequality. Other qualitative studies identify lack of an enabling environment whit both government and local leaders failing to demonstrate commitment and to remain accountable to their community members.

In brief of these studies, implementation of community-based projects falls short of commitment by both government and local leadership. Community members are not adequately involved too and as such, they feel alienated from both the implementation process as well as the outcomes of such developments.

# 2.3 Participatory Project Planning for M&E and Implementation of Community-Based Water Projects

In the words of Olthelen (1999), participatory planning is the first stage in the process of defining a common agenda for development by a local community and an external organization. A self-sustaining local development planning process should emerge as a result of this initial stage. Rather of jumping straight into problem solutions, Thomas & Kurian (2013) argue that participatory planning is intended to provide a learning platform.

Community involvement processes during the planning stage include identifying stakeholders, setting up systems that allow public officials to engage with stakeholders, and developing a wide range of participatory methods, according to Laura (2010) According to Chambers (2012), stakeholders are those who belong to various defined

communities and whose lives have been impacted by certain policies and initiatives, and/or those who have basic rights as citizens to voice their views on public problems and activities. As a result, a strong strategy must be created and implemented with all parties involved: the individuals who will be supported, local public officials and officials from corporate and governmental agencies as well as workers' unions. Without their active involvement in the planning process, little can be done (GTZ, 2017).

According to Hamdi and Geothert, community members must actively and meaningfully participate in community activities. According to their findings, there are three degrees of participation: The least participative of the four techniques is passive involvement. By being informed about what is going to happen or what has already happened, the primary stakeholders of a project participate. No one gives any feedback, and participation is measured by measures such as headcount and contribution to the conversation (sometimes referred to as participation by information).

When stakeholders are asked to answer questions by outside researchers or specialists, it's an extractive procedure. It is not necessary to wait until a meeting to offer input; it can be provided at any time. A consultation procedure leaves all decision-making authority to external specialists, who are under no duty to take into account stakeholders' opinions in the final analysis. As a result of cooperation, major stakeholders are brought together to debate and analyze established project objectives. What should be done is generally predetermined, thus this level of engagement does not usually result in major improvements. When main stakeholders have the ability and willingness to begin the process and take part in the analysis, this is called empowerment participation. A collaborative decision is made on what should be achieved and how the key stakeholders will assume responsibility for and management of this process (Hamdi & Geothert, 2015).

A new paradigm in development planning, participatory planning is characterized by Ray (2010) and Rietbergen (2011) as a strategy that involves local people in development choices that will influence their lives. It's a strategy that has gained traction in development planning throughout the years, and it's one that's still going strong. As a result of the work of contemporary development experts such as Chambers (1983, 1992, and 1997), Arnstein, and Uphoff, participatory planning has gained more traction and credibility. It is their belief that the primary objectives of any development cannot be completely accomplished unless people meaningfully participate in it that makes them advocates for people's participation in all development efforts (Mohammad, 2010).

# 2.4 Participatory Decision Making for M&E and Implementation of Community-Based Water Projects

Effective project planning, implementation and management are best accomplished utilizing a participatory methodology zeroed in on compelling dynamic. David (2015) opines that the venture is basically about settling on choices and that, albeit numerous organizations utilize phenomenal task administration, usage of activities and the everyday administration requires choices that are produced using experience. In this view, participatory dynamic can be characterized as a methodical cycle that empowers people and gatherings to impact organization choices in an illustrative way. Christopherson, Scheufele and Smith (2018) describe participatory decision making as a methodical process that grants stakeholders an opportunity to provide information, align value judgements and make risk trade-offs in regard to an intended project, policy or program.

Previous studies reveal decision making as part of daily life as communities continue to go through complexities and uncertainties of making choices among the pressing needs facing them. Korfmacher (2001) highlights that democratic, substantive, and pragmatic rationales support community involvement in decision making. Studies by various scholars uncover participatory decision making at community level as one of the tools predominantly employed in ensuring a smooth implementation of communitybased projects. Muniu, Gakuu and Rambo (2017) did a study to establish the influence of community participation in decision making on sustainability of community water projects in Kenya. Cross-sectional survey design was applied on sample of 290 respondents and 10 projects while both quantitative and qualitative data analysis was carried out. Results of the study indicated a significant influence of decision making on implementation of community projects. The findings uncovered that participatory decision-making influences sustainability of success of community-based projects. In other words, the greater the participation of community members in decisions making process, the higher the level of project's success and sustainability.

Markowska et al., (2019) embraced a contextual investigation on the idea of a participatory way to deal with water the executives on a repository developed in a little, rustic cooperative of Msciwojow, situated in Jawor County, in Poland. The investigation utilized the repository's plan documentation, the cooperative's arranging records and the examinations accessible on the sites of associations, establishments and state workplaces just as consequences of exploration work led at the office. Likewise, data assembled during field investigations as photographic documentation was utilized, just as materials got during interviews with delegates of the neighbourhood specialists, a nearby activity gathering, and authorities from the Polish Angling Association and the Lower Silesian Board of Melioration and Water Structures. Discoveries of the organization overseeing water asset offices and the affiliation liable for overseeing fish restocking. After-effects of relevant examinations on the Msciwojow Reservoir likewise affirmed the presence of a procedural-authoritative hole.

In another investigation directed in Bangladesh in regard to network interest in dynamic proof from an examination in safe drinking water arrangement, Madajewicz, Tompsett and Habib (2017) found colossal advantages of network association in giving the network's own personal public administrations. The examination was done on a haphazardly chose 250 towns that generally influenced by the arsenic issue, in addition to one more 125 towns in which in any event 65% of wells had dangerous degrees of arsenic in Matlab. Results of the examination indicated that each of the three mediations improve admittance to safe drinking water however appointing dynamic improves access comparative with the top down methodology. Nonetheless, Tosun (2000) sees that network cooperation through work as laborers or as private venture administrators, instead of support in the dynamic cycle, has been perceived to assist nearby with people

getting more than monetary advantages. WenJun (2017) completed a contextual investigation in China to survey network interest in the travel industry improvement in Sichuan Province in China. Despite the fact that there was no standard strategy for surveying sufficiency of network support levels, the investigation indicated that there was insignificant contribution in the arranging cycle but then practically the entirety of the inhabitants had gotten monetary advantages from ecotourism. Further, the examination uncovered that Participation in dynamic was just one of numerous approaches to guarantee that neighbourhood individuals got profits by the travel industry, and not a last objective itself.

In view of results from the above studies, participatory decision-making influences implementation of community-based projects. When community members get involved in decision making processes, they get to own the outcomes, build their attitudes through motivation and consequently get empowered. Coleman, Hurley, Koliba and Zia (2017) suggest that stakeholder participation can generate improved decisions.

## 2.5 Participatory Stakeholders Identification for M&E and Implementation of Community-Based Water Projects

Stakeholders are people, gatherings of individuals or associations that can influence or get influenced by a planned undertaking, program or strategy, either straightforwardly or by implication and they have basic bits of knowledge that may advise different angles regarding a proposed improvement. Turcksin (2010) characterizes partners as individuals with an interest in the results of any proposed choice. Accomplices unequivocally sway adventure accomplishment, particularly for complex exercises with heterogeneous accomplices, and understanding their effect is essential for adventure the board and utilization. Thusly, participatory partner distinguishing proof empowers all gatherings with an interest in an expected improvement to partake in recognizing those legitimately or in a roundabout way influencing and may get influenced by execution of a proposed undertaking, program or strategy.

In this way, the cycle is basic and should come at the underlying phase of any improvement so as to direct a powerful dynamic cycle. Bomb et al., (2017) and United

States Department of Agriculture (2012) affirm that partners' idetification is an early and significant advance in any dynamic cycle. Inability to distinguish a key partner can mess up for any task. Mabelo and Pascal (2020) noticed that recognizing partners and understanding their overall level of impact on a venture is subsequently basic and ignoring positive partners prevents the undertaking from getting truly necessary help, while neglecting negative partners will bring about a higher probability of task disappointment. Past examinations embraced over the world demonstrates a critical impact of participatory partners distinguishing proof on effective execution of network advancements.

Past examinations attempted in different nations over the world features huge impact of network association on supportability of ghetto redesigning Francisco and Rabechini (2019) concentrate in Brazil set up huge impact of partners' administration on fruitful usage of tasks. The examination looked to research the impact of partner executives on trust connections in an undertaking climate. Surveys were utilized on 160 respondents who were gotten to through the web address. Consequences of the investigation uncovered partner executives as prescriptively and socially important with the prescriptive giving partners' distinguishing proof, order and checking, and the social suggesting contribution and commitment. Moreover, the discoveries show that administration of partners of social birthplace contributes decidedly to trust connections while contribution and commitment are helpful for connections of trust.

Uwimana and Mulyungi (2018) did an incorporated contextual analysis of Nutrition venture in Ngoma, Zaza area in Rwanda to decide the significance of M&E Systems in venture usage. Partners' examination framed piece of the critical factors of examination and an example of 223 members all chipping away at the coordinated sustenance venture in Zaza area who remembered 4 cells and 52 towns for Zaza area. One YWCA M&E staff, area party, four cell pioneers 55 town pioneers and 162 Community volunteers. The findings revealed that partners ought to be associated with the whole cycle of venture arranging, usage and finishing. All things considered, their ID turns into an antecedent for the whole cycle. At the point when individuals meet up and

embrace a participatory cycle, the correct partners are distinguished and get incorporated into the cycle.

In different investigations, Wood, Mitchell, Agle and Bryan (2018) embraced subjective examination and organization examination to add to the proceeding with challenge of clarifying how chiefs recognize partners and survey their notability. With respect to partners' recognizable proof, consequences of the investigation underpin the neoclassical hypothesis of the firm which advocates for benefits first and interests of partners keep on being seen as subordinate to those of Shareholders.

Based on the above, it is evident that participatory partners' ID advances better administration of partners' connections, engages, and empowers ID of potential difficulties ahead of time and improvement of measures to that can be utilized. As per Venkataraman (2002) the associated nature of members inside the current business climate implies that fumbling partner connections especially overlooking damages to automatic partners can bring about significant and enduring harm to those partners and to society.

# 2.6 Budgetary Allocation for M&E and Implementation of Community Based Water Projects

Water infrastructure delivery relies on access to money, as well as the structuring of the funding mechanism for each project or group of projects. Water infrastructure supply is becoming increasingly expensive, and many poor countries are unable to pay it (Ruiters, 2013). According to the World Bank (2010), Africa's infrastructure falls behind other emerging nations. Infrastructure networks in Africa are underdeveloped, and the cost of services is astronomical by global standards. The total infrastructure gap for water and sanitation in sub-Saharan Africa is estimated at \$93 billion yearly (World Bank, 2010). As a result, addressing Africa's infrastructure demands requires a major investment and maintenance program in infrastructure. 2/3 of this estimate is related to capital expenditures, while the remaining 1/3 is related to operation and maintenance requirements (Brineco-Garmendia et al., 2008; World Bank, 2010).

It's time for governments, businesses, financiers and other key stakeholders to take a fresh look at water infrastructure and service delivery (DBSA, 2009). Delays increase the cost of infrastructure in the long run much more. Water infrastructure backlogs in countries like South Africa force them to search for novel methods. As significant inputs for all sectors, efficient and productive infrastructure services are essential for economic growth and efficiency, productivity as well as for competitiveness. As South Africa's population continues to expand, infrastructure productivity will become increasingly important (DWAF, 2008).

Department of Water Affairs (DWA) has typically financed water infrastructure development projects in South Africa (Schreiner and Hassan, 2011). Despite the rising demand for water infrastructure, no alternative analysis or models have been offered or finalized since the early 2000s. For this reason, alternative finance methods for enhanced national water infrastructure management are needed (Matta and Ashkenas, 2003).

Subsidies supplied by the federal government, mostly through CONAGUA, to states, municipalities, and water and sanitation providers account for the majority of investments in infrastructure for managing water resources in Mexico. General government income, fees for water usage and discharge, and profits from loans are all sources of finance for water resource management (OECD, 2010). Since water utilities have minimal operating margins, federal subsidies are the primary source of funding for water resource management. Cost-cutting measures have been adopted by the Mexican government. In the water and sanitation sector, the largest program is the Drinking Water and Sanitation Program for Urban Areas, while the Program for Rehabilitation and Modernization of Irrigation Districts (PRMI) is the largest in the agriculture water sector (World Bank, 2005).

Payments for Ecosystem Services (PES) is a market-based model for ecosystem financing that has emerged in Nepal as a way to motivate communities to better manage their local natural resources (Kosoy, Martinez-Tuna, Muradian, and Martinez-Alier, 2007) and internalize environmental externalities (Bellver-Domingo, Hernández-

Sancho, and Molinos-Senante, 2016). Comparatively, Rajesh, Priya, Mani, and Bhatta (2018) concluded that building a PES-type mechanism was both socially acceptable and fiscally viable, based on their research. It was possible to determine how much families were willing to pay for water quality improvement through the use of the choice experiments. To get water that is usable after filtering, the typical family was ready to pay NPR 270 (USD 2.50), or 13 percent more than the average yearly tariff rate.

According to a 2011 management plan for the watershed, water quality may be improved by home waste management, grazing regularization, and improved agricultural methods (IUCN). In a research by Jack, Kousky, and Sims (2008) on establishing payment systems for ecosystem services, they discovered that water quality monitoring is necessary to guarantee that water users obtain the advantages they paid for. For this reason, the municipal and sector water authorities must agree to participate in the proposed institutional framework for setting up a PES program

To build water infrastructure, the capital and financial markets raised a total of R32.2 billion (TCTA, 2012; NT, 2012). South Africa's National Treasury issues interestbearing government bonds and provides explicit guarantees to raise funds on the financial markets. On the other side of the coin, local government issues municipal bonds to raise money for day-to-day operations and particular municipal initiatives, such as infrastructure development and transportation improvements.

## 2.7 Theoretical Framework

The study was anchored on two theories: Theory of Change by Carol Weiss (1995) and Stakeholder Participation theory by Dr. Edward Freeman (1984).

## 2.7.1 Theory of Change

Carol Weiss first proposed the idea of change in 1995, and it has been widely accepted since. An intervention's causal links, such as outputs, direct results and intermediate states and long-term effects are described in the theory. There are a number of connected paths that indicate the needed results in connection to one another, as well

as a chronological flow. There is a clear identification of all major change agents, their roles, and how they will be affected by changes in the TOC. The theory relates to the study in that focus is given to the stakeholders, financial resources in terms of budgetary allocation involved as the inputs with respect to attaining implementation of community based water projects as the desired change in Igwamiti, Laikipia West Sub-County.

### 2.7.2 Stakeholder Participation Theory

Edward Freeman proposed the Stakeholder Participation Theory in 1984. Activist stakeholder engagement in any development initiative, according to theory, is important and beneficial to the recipient community. To influence or manage or balance the connections that can have an impact on an organization's or institution's success, according to the idea, is the fundamental management responsibility. It is difficult to determine what the problems or constraints a community is facing or what they desire without stakeholder participation. Members' sense of ownership increases as a result of their participation in projects (Harvey and Reed, 2007). This theory relates to the study where focus is given to implementation of community based water projects by involving every stakeholder from the donors, the local community and the project implementation team. To achieve community participation, Epstein (2017) explains that collaborative efforts or combined involvement of project beneficiaries and the implementing agencies must be enforced in order to achieve community participation.

## **2.8 Conceptual Framework**

As conversed in the literature review, the conceptual framework for this study underlines four main variables that the researcher believes influences implementation of community-based projects in Laikipia West Sub-County. In Figure 1, participatory project planning for M&E, participatory decision making for M&E, participatory stakeholders' identification for M&E and budgetary allocation for M&E represents the independent variables for this study while implementation of community-based projects represents the dependent variable.



Figure 1: Conceptual Framework showing the relationship between influence of participatory Monitoring and Evaluation Process on Implementation of Community-Based Water Projects in Igwamiti, Laikipia West Sub-County, Laikipia County, Kenya

# 2.9 Knowledge Gap

Variable	Author and the Year	Title of the Study	Findings	Knowledge gap	_
Participatory Project Planning for M&E	Titterton and Smart (2008)	Case Study on Former Craigmillar Health Project in deprived Scottish community: Is participatory research a way to empowerment possible?	Opportunities for voluntary work The initiative has allowed people to learn certain abilities, to encourage self-esteem and self-esteem	The study was conducted in Scotland, a developed country. As such, there is need to establish whether these findings can apply in Kenya, specifically in Laikipia West Sub- county	
	Jamshidi, Shahandeh, Rajabi, Majdzade, Aghajani, Majdzadeh and Akbari (2011)	Effective Neighborhood Approach and Policy Modification Assessment	Participatory needs and intervention based on local needs are an effective and long-term method to meeting community needs	The study focused on participatory needs assessment as an effective approach to policy and neighbourhood change. This study seeks to Participatory needs assessment in the context of community based projects.	24
	Rippon, Beattie, Lungu, Kumwenda and Morse (2018)	Healthy Settings needs examination of social capital insights in Malawi	All groups were strongly committed to belonging to the community and young people and women had a lesser degree of social capital to influence the local choices and to depend on other members of the community.	The study was conducted in a health setting but this study seeks to examine the influence of needs assessment in the context of community based projects and specifically, water project.	

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Participatory Decision Making for M&E	Muniu, Gakuu and Rambo (2017)	Community Participation in Kenya Project Decision Making Community Water Projects Sustainable	Findings uncovered that participatory decision making influences sustainability of success of community based projects	The study focused more on community participation and Community Water Projects in Kenya as a dependent which is not the dependent variable concern in this intended study.
	Markowska, Szalinska, Dąbrowska and Brząkała (2019)	The notion of a participatory water management approach to a reservoir to address bad conditions	Findings of the study revealed lack of cooperation between the local authority organization, the institution managing water resource facilities and the association responsible for managing fish restocking	The study focused on participatory approach to water management on a reservoir. This study seeks to examine the influence of participatory decision making on implementation of community based water project
	Madajewicz, Tompsett and Habib (2017)	How do delegating Beneficiary decisions affect their public service access? Proof from a Bangladesh Field Experiment,	Outcomes of the study showed that all three interventions improve access to safe drinking water but delegating decision making improves access relative to the top down approach	The study discussed community participation in the context of decision making in public service. This study will look at participation of community members in decision making in the context community based projects.
Participatory Stakeholders Identification for M&E	Francisco and Rabechini (2019)	Stakeholder management influence on the confidence of a project:	Stakeholder management as prescriptively and relationally relevant with the prescriptive providing stakeholders' identification, classification and monitoring, and the relational recommending involvement and engagement	The study did not account for stakeholder's identification in fostering social cohesion, relationships and networks, attributes that are key ingredients of implementation of community based projects.

Uwimana and Mulyungi (2018)	Importance in project execution of monitoring and evaluation systems: a case study of the NGOMA district's integral nutrition project, ZAZA sector.	The participants should participate in the whole project planning, implementation and completion process Uncovered.	Focused on monitoring and evaluation systems in the context of nutritional project. This study will discuss stakeholders identification in the context of community based project
Wood, Mitchell, Agle and Bryan (2018)	Identifying and saliencing stakeholders after 20 years: progress, problems and expectations	Results revealed that profits took centre stage and interests of stakeholders continue to be perceived as subordinate to those of Shareholders	The study was based on qualitative analysis but this study seeks to examine participatory stakeholders identification using quantative approach

Budgetary	Reed, Dougill and	Development of	Local knowledge has been more	The study focused on participatory indicators
Allocation for M & F	Baker (2008)	Participatory Indicators:	comprehensive than many published	development intended to measure progress toward
Anocation for Mi&E		what can ecologists	monitoring indicator lists. And people are	conservation and sustainability goals. Indicators
		and local communities	better familiar with indicators produced in an	development covered in this study are meant to
		learn from one another?	integrated participatory approach.	measure progress of community based projects.

Vaidya and Mayer (2014)	Using the participative method to produce sustainable resource management assessments	A rather limited number of instances showing incorporation of public engagement in the evaluation of sustainability and decision- making processes	The study covered budgetary allocation using analysis of secondary data. This study will utilize primary data to examine budgetary allocation.
Yegbemey, Yabi, Dossa and Bauer (2014)	A case study on maize growing in Northern Benin, west of Africa: Management of the agricultural calendar	The study indicated inability to meet sustainability threshold and as such, revealing weaknesses of maize farming in northern Benin whose assessment has been relying on indicators define by scientists and researchers alone.	The study focused on maize farming sustainable in northern Benin, but aims to explore the effect of the formulation of indicators in community-based initiatives

#### 2.10 Summary of Literature Review

The review of literature in this chapter focused more on the empirical review in favor of four key variables: participatory project planning for M&E, participatory decision making for M&E, participatory stakeholders' identification for M&E and budgetary allocation for M&E. Empirical review conducted reveals growing concerns about implementation of community-based projects in many developing countries. Previous studies undertaken affirm that participatory project planning and implementation of community-based projects are inseparable. Other studies reviewed highlights that participatory decision making promotes sense of belonging, commitment and ownership of outcomes from an ongoing project or program. While literature reviewed affirms that participatory stakeholders' identification provides equal opportunities for all parties with interest to be considered, other studies maintain that budgetary allocation allows local communities to measure progress even without the help of specialists.

Further, this chapter covers theoretical suggestions of the ladder of citizen participation theory. In reference to the Ladder of citizen participation theory, community participation will be effective when practice within the higher rungs of the ladder. Otherwise, lower rungs exhibit passive participation by community members. In view of this theory, previous studies undertaken and other literature reviewed, participatory project planning, participatory decision making, participatory stakeholders' identification and budgetary allocation influences implementation of community-based projects.

#### **CHAPTER THREE**

#### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The research technique in this chapter is focused. This includes study design, demographic goal, sample size and sampling methods. It also covers research tools, pilot tests, instrument validity and reliability, data collecting processes, data analysis methodologies, ethical concerns and ultimately variables operationalization.

#### 3.2 Research Design

This study adopted descriptive cross-sectional survey. The design was appropriate for gathering information using questionnaires and interview (Nassaji, 2015). This study sought to gather data on people's opinions and perceptions in regard to participatory project planning, participatory decision making, participatory stakeholders' identification and budgetary allocation in Laikipia West Sub-County. Both quantitative and qualitative methods were used to collect data. Burns and Grove (2012) maintain that quantitative methods allow objective and systematic analysis of numerical data about the phenomenon while qualitative methods facilitates collection of data-based peoples' assessments and attitudes.

#### **3.3 Target Population**

The target population of the study was 182 comprising of 158 community water project households and 24 county management team in charge of monitoring and evaluation. Target population refers to the whole group of subjects upon which findings of the study is generalized. Kombo and Tromp (2006) claim that the population means a group of people from whom samples are obtained. Gweyi and Karanja (2014) add that target population provides the basis for drawing a sample (Department of Water Services, Laikipia County - 2020).

Categories	Target Population	Percentage
Households	158	86.81

#### Table 3.1 Target Population

M&E Management team	24	13.19
Total	182	100

#### 3.4 Sample Size and Sampling Procedure

For the purpose making generalization upon the wider population from the study findings, an appropriate sample size and procedure are important factors. Singh and Masuku (2014) hint that specific sampling procedures are only applicable to specific research questions and that inappropriate sample size may generate disingenuous conclusions.

#### 3.4.1 Sample Size

The sample size of the study was 123 from the target population of 182 as indicated in the Table 3.2. Kadam and Bhalerao (2010) define sample size as the number of participants comprising a sample. The sample was determined using the Krejcie and Morgan table (1970) value for the entire population of 158 registered household water resource users and 24 members of the monitoring and evaluation team.

Categories	Target	Sampling	Sample Size
	Population	Proportion	
Households	158	0.868	107
M&E team	24	0.132	16
Total	182	1.000	123

#### **Table 3.2: Sample Size**

#### **3.4.2 Sampling Procedure**

Sampling procedure is the approach that researchers adopt when doing statistical sampling to acquire a sample population from the target population (Elfil and Negida, 2016). The study employed proportionate sampling technique to obtain the sample of 107 beneficiaries from a representation of 158 and 16 members of M&E team from a population of 24. Sharma (2017) implies to an objective technique for obtaining participants for a research utilized when the population consists of a large number of subgroups. In relation to the whole population the number of participants from each subgroup is calculated.

#### **3.5 Research Instruments**

Kombo and Tromp (2006) observe that data collection instruments consents the researcher to take a step by step process of collecting data. Questionnaires with closeended questions and Likert items was used to collect data for this study. The questionnaires were categorized into six different sections: Respondents' basic information, implementation of Igwamiti water project, participatory project planning, participatory stakeholders' identification, participatory decision making and budgetary allocation. Questionnaires with close-ended questions enabled the researcher to collect data on specific questions seeking to examine respondent's opinions about the influence of participatory monitoring and evaluation on implementation of community-based projects in Laikipia West Sub-County. In addition, obtaining data using questionnaires is fast, cheaper, accurate, consistent and easier to analyze (Sansoni, 2011). Further, when using questionnaires the study gains confidentiality and cost-effectiveness. The researcher also employed the use of call interviews which were addressed to the key members of the water resource users considering the restriction by the government in adhering to the Covid-19 protocols.

#### 3.5.1 Pilot Testing of the Instruments

Pilot testing enhances objectivity of the research instruments and correct any observed inconsistencies. It is a preliminary study that is aimed at improving the efficiency of research instruments as well as the proposed data collection methods (Nashwa, Gary & Julie, 2017). Pilot testing for this study adopted pre-test of the research instruments on a small sample of 12 participants selected on basis of convenience. The sample size of the primary research is 10 percent, according to Mugenda and Mugenda (2003), suitable for a pilot testing. The pilot research was done on the Solio water project, completed in December 2019 in Tigithi Ward, Laikipia East Sub-County. Solio water project is easily accessible and reflects similar characteristics to those of Kaichakun Spring water protection project.

#### **3.5.2 Validity of the Instruments**

Classical test theory asserts that scores obtained by research instruments comprises of both the true score and an error and as such, the validity of the findings obtained can only be measured in degrees. Kombo and Tromp (2006) indicated that validity is a measure of how well a test measures what was meant to be initially measured. Items in the research instrument will be first discussed with the supervisors to obtain content validity. In addition, piloting of the research instruments provided an opportunity to identify and modify any general statements and discomfited techniques so as to achieve construct validity. Results of the pilot study will be validated by comparing the previous and similar studies reviewed.

#### 3.5.3 Reliability of the Instruments

The study employed the split-half reliability method. Split-half technique is where the instrument is split into odd-numbered questions and even-number questions then scores from both halves are correlated. The Cronbach's Alpha correlation coefficients have been established for both by measuring the inner coherence of the instrument by determining whether specific items measure the same structure in one scale. The results obtained from the reliability coefficients indicated that the instrument was reliable with a composite Cronbach alpha coefficient mean value of 0.739. The results of the computation of Cronbach alpha coefficients are shown on Table 3.3.

Variable	No of items	Coefficient Alpha (α) Value
Participatory Project planning	7	0.752
Participatory Decision making	7	0.724
Participatory stakeholder identification	7	0.707
Budgetary Allocation	7	0.784
Implementation of water projects	7	0.722
Composite Coefficient Mean	7	0.739

#### **3.6 Data Collection Procedures**

The researchers requested the National Science, Technology and Innovation Commission research permit (NACOSTI). The researcher wrote an introduction letter to the identified respondents before the start of the data collection and asked them to participate in the study. Before starting the data gathering procedure, ethical issues were fully explained and adhered to. In order to collect the needed data, the research tools were explicitly described to the researchers. 123 questionnaires were thereafter sent to heads of households and members of surveillance and assessment teams who are mostly water source by the community water project. Following data gathering, mistakes and inconsistencies will be cleaned up, coded and deleted. The answers were summed up

with percentages, frequency numbers, means and standard deviation. The reactions of the sample population have formed conclusions about a particular demographic.

#### 3.7 Data Analysis Techniques

Data analysis is a step by step process of applying statistical techniques to make sense out of raw data obtained during data collection and the aim is to arrive at conclusions, explain or interpret and support decision making process (Obwatho, 2014). The primary data obtained in this study were coded and thoroughly tested and analyzed using descriptive and inferential statistics then submitted with tables. The analysis of field information from surveys by describing statistical approaches (frequencies, percentages, means and standard deviation) to aid in the interpretation and analysis of data using the Social Sciences statistical package has been used (IBM SPSS Version 25).

#### 3.8 Ethical Consideration

Ethics is the study of what is morally right and acceptable, and what is morally wrong and unacceptable. According to Pitak-Arnnop, Dhanuthai, Hemprich and Pausch (2012), the concept of ethics brings in environment of trust, accountability and respect among on researchers when collecting data in pursuit of knowledge and truth. In this study, the researcher observed voluntary participation, informed consent of the participants, confidentiality and their anonymity. In addition, the researcher adhered to all legal requirements and professionalism throughout the process of data collection. Further, the researcher obtained a research permit from the National Commission for Science Technology and Innovation (NACOSTI) and a letter of authorization from the department of water services in Laikipia County. Moreover, permission was sought from the relevant institutions and the researcher also remain committed to ethical considerations related to publishing of this project.

#### **3.9 Operationalization of Variables**

The measurement of the four variables in this study are operationalized as shown in the Table 3.4.

		<b>.</b> .	Measurement	Type of	Tool of
Objectives	Variables	Indicators	Scale	Analysis	Analysis
To determine influence of participatory project planning on implementation of community- based projects in Laikipia west sub- county	Independent Variable: Participatory project planning	Household surveys Key informant interviews Focus group discussions Assessment guides	Interval	Descriptive statistics	Frequencies, Percentage Mean, SD,
To       examine         influence       of         participatory       of         decision       making         on	Independent Variable: Participatory decision making	Consultative Meetings Individual responsibility Accountability	Interval	Descriptive statistics	Frequencies, Percentage Mean, SD.
To       determine         influence       of         participatory       stake         stakeholders       of         identification       of         implementation       of         of       opojets         based       projets         in       Laikipatoria         west       sub-         county       sub-	Independent Variable: Participatory stakeholders identification	Stakeholders' relations Ongoing negotiations Stakeholders' agreements Shared concerns	Interval	Descriptive statistics	Frequencies, Percentage Mean, SD.

### Table 3.4 Operationalization of Variables

To examine	Independent	Stakeholder's	Interval	Descriptive	Frequencies,
influence of	Variable:	review		statistics	Percentage
participatory	Participatory				M CD
indicators'	indicators'	Baseline data			Mean, SD.
definition on	definition	Objectives			
implementation					
of community-		Relevance to			
based projects		local priorities			
in Laikipia					
west sub-					
county					

#### **CHAPTER FOUR**

## DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

#### 4.1 Introduction

This chapter focuses on data analysis, presentation and interpretation of findings. The chapter analyses the demographic characteristic of the respondents and addresses the themes for each objective alongside the dependent variable. Each theme was analyzed, presented and interpreted as per the findings obtained.

#### 4.2 Questionnaire Return Rate

In this part, 123 questionnaires were distributed to the respondents in the sample size taken from the target population. 108 were filled and returned for data processing from the 123 questionnaires. Results are shown in Table 4.1 which shows an 87.8 percent response rate, which is defined as an outstanding Babbie (1990) response rate, suggesting that the 60 percent response rate is good; 70 percent is very good.

Return rate	Frequency	Percentage
Responded	108	87.8
Non-response	15	12.2
Total	123	100.0

 Table 4.1: Questionnaire Return Rate

The questionnaire return rate constituted of 87.8% which when compared to Babbie (1990) who suggested that a response rate of 60% is good; 70% is very good. Similarly Cooper and Scindler (2000) recommended for social sciences as 75% and above given that the study obtained a return rate of more than 75% of the recommended.

#### 4.3 Demographic Characteristics of Respondents

The research intended to provide the respondents with background information on gender, formal education level and the age group. The results are submitted in accordance with gender, age and educational level.

#### 4.3.1 Distribution of Respondents by Gender

In respect to the gender of the respondents, the following were the findings as presented on Table 4.2.

Gender of Respondent	Frequency	Percent
Male	49	45.4
Female	59	54.6
Total	108	100.0

#### Table 4.2: Distribution of Respondents by Gender

The results in Table 4.1 showed that 45.4% of respondents were male and 54.6% female. This suggested that the distribution of interviewees by sex with mole females rather than men in this study was rather skewed.

#### 4.3.2 Distribution of Respondents by Age

The respondents' age and analysis results as provided in Table 4.3 were requested.

Age Distribution	Frequency	Percent	
35 and Below	15	13.9	
36 - 49	52	48.1	
50 and above	41	38.0	
Total	108	100.0	

#### Table 4.3: Distribution of Respondents by Age

The Table indicates that about 48.1% of the respondents were between the ages of 36 - 49 years of age. About 38.0% of the respondents were above 50 years old while slightly under 14% were 35 years or below.

#### 4.3.3 Distribution of Respondents by Level of Education

The survey also examined respondents' level of education qualifications as provided in Table 4.4.

Level of Education	Frequency	Percent
No Education	7	6.5
Primary	19	17.6

#### Table 4.4: Distribution of Respondents by Level of Education

Secondary	51	47.2
Tertiary	23	21.3
University	8	7.4
Total	108	100.0

The Table indicates that 6.5% of the respondents had no formal education, 17.6% and 47.2% had primary and secondary education respectively while 21.3% had acquired tertiary education with 7.4% having acquired university education. From the table, it was observed that 71.3% of the respondents had either no education or had just acquired basic education from primary to secondary schools.

Thus, it can be said that majority of this respondents lacked specialized training that would be acquired through tertiary education.

#### 4.4 Implementation of Community-Based Water Projects

The dependent variable sought to obtain responses on implementation of communitybased water projects. The respondents were required to give their feedback on the statements provided. To measure the response variable, the study employed the use of a 5 point Likert scale where 1= Strongly Disagree (SD), 2 = Disagree (D), 3= Neutral (N), 4 = Agree (A) and 5= Strongly Agree (SA). The findings for the analysis were as shown in Table 4.5.

Statements	1	2	3	4	5	n	Mean	SD
	F	F	F	F	F			
	(%)	(%)	(%)	(%)	(%)			
1. The community benefits from water	7	6	8	35	52	108	4.04	1.02
projects.	(6.5)	(5.6)	(7.4)	(32.4)	(48.1)			
2. There is effective use of the water from this	12	8	9	37	42	108	3.86	1.19
community water project.	(11.1)	(7.4)	(8.3)	(34.3)	(38.9)			
3. Members of the community continue to	13	12	11	32	40	108	3.82	1.26
enjoy water from the community without disruptions.	(12)	(11.1)	(10.0)	(29.6)	(37.0)			

#### **Table 4.5: Implementation of Community-Based Water Projects**

4. Community members feel that they are	18	14	10	30	36	108	3.70	1.38
fully benefitting from the community water project.	(16.7)	(12.9)	(9.3)	(27.7)	(33.3)			
5. Affordability of water services influences	8	5	10	38	47	108	4.02	1.07
implementation of community based water projects	(7.4)	(4.6)	(9.3)	(35.2)	(43.5)			
6. Customer satisfaction is key in the	4	6	2	35	61	108	4.17	0.98
implementation of community water projects.	(3.7)	(5.6)	(1.9)	(32.4)	(56.5)			
7. Quality of water will be ascertained when	20	13	10	27	38	108	3.65	1.41
proper implementation is conducted.	(18.5)	(12.0)	(9.3)	(25.0)	(35.2)			
8. The number of water allocation plans	11	5	5	41	46	108	3.88	1.17
enhances implementation of community based water project	(10.2)	(4.6)	(4.6)	(37.9)	(42.6)			
Composite Mean							3.87	1.14

The study sought to find out how implementation of community water projects was achieved through statements derived from the indicators. The findings as per the first statement on whether community benefits from water projects. The results from the Table 4.5 indicate that 52(48.1%) strongly agreed, 35(32.4%) agreed, 8(7.4%) were neutral, 6(5.6%) disagreed and 7(6.5%) strongly disagreed with a mean and a standard deviation of 4.04 and 1.02 respectively. The statement when compared to the composite mean 3.87, this implies that community water projects has a positive contribution on the response variable as supported by 80.5% of the respondents.

On whether there is effective use of water from this community water project, the study obtained the following results; 42(38.9%) strongly agreed, 37(34.3%) agreed, 9(8.3%) were neutral, 8(7.4%) disagreed and those who strongly disagreed 12(11.1%) with a mean and standard deviation of 3.86 and 1.19 respectively. This implies that the statement slightly contributes to the variable and has an influence on the response variable being supported by 73.2% of the respondents.

The findings on the third statement revealed that 40(37.0%) of the respondents strongly agreed that the community continues to enjoy water without disruptions, 32(29.6%) agreed, 11(10.0%) were neutral about the statement, 12(11.1%) disagreed and 13(12.0%) strongly disagreed with a mean and standard deviation of 3.82 and 1.26

respectively. The findings indicate that the statement has a negative contribution on the variable considering the line item mean was less as compared to the composite mean of 3.87.

Data obtained for the fourth statement revealed that a significant number of respondents agreed that community members benefit from community water project. The statistics indicate that 36(33.3%) strongly agreed, 30(27.7%) agreed, 10(9.3%) were neutral whereas 14(12.9%) and 18(16.7%) disagreed and strongly disagreed respectively with a mean and a standard deviation of 3.70 and 1.38 respectively. The statement as compared to the composite mean 3.87, implies that community members benefitting from the water project contributes negatively to the response variable. This is evidenced by comparing the line item mean (M=3.70) against the composite mean (M=3.87).

The fifth statement sought to obtain information on whether affordability of water services influences implementation of community based water projects. The findings indicate as follows; 47(43.5%) strongly agreed, 38(35.2%) agreed, 10(9.3%) were neutral, 5(4.6%) disagreed and 8(7.4%) strongly disagreed with a mean and a standard deviation of 4.02 and 1.07 respectively. The findings indicate that affordability of water services contributes to the response variable with a line item mean of 4.02 against the composite mean of 3.87.

On whether customer satisfaction is key in the implementation of community water projects, the study obtained the following results; 61(56.5%) strongly agreed, 35(32.4%) agreed, 2(1.9%) were neutral, 6(5.6%) disagreed and those who strongly disagreed 4(3.7%) with a mean and standard deviation of 4.17 and 0.98 respectively. This implies that the statement contributes positively to the response variable.

The seventh statement sought to obtain information on whether quality of water will be ascertained after implementation. The findings indicate as follows; 38(35.2%) strongly agreed, 27(25.0%) agreed, 10(9.3%) were neutral, 13(12.0%) disagreed and 20(18.5%) strongly disagreed with a mean and a standard deviation of 3.65 and 1.41 respectively. The findings indicate that ascertaining quality of water negatively contributes to the response variable with a line item mean of 3.65 against the composite mean of 3.87.

The last statement observed that the number of water allocation plans enhances implementation of community based water projects. This is as indicated by the following descriptive findings; 46(42.6%) strongly agreed, 41(37.9%) agreed, 5(4.6%)

were neutral, 5(4.6%) disagreed and 11(10.2%) strongly disagreed with a mean and a standard deviation of 3.88 and 1.17 respectively.

### 4.5 Participatory Project Planning for M&E and Implementation of Community-Based Water Projects

The first variable sought to determine the extent to which participatory project planning for M&E influence implementation of community-based water projects in Laikipia West Sub-County. To measure the extent, the study employed the use of a 5 point Likert scale where 1= Strongly Disagree (SD), 2 = Disagree (D), 3= Neutral (N), 4 =Agree (A) and 5= Strongly Agree (SA). The findings for the analysis were as shown in Table 4.6.

#### Table 4.6: Participatory Project Planning for M&E

Statements	1	2	3	4	5	n	Mean	SD
	F	F	F	F	F			
	(%)	(%)	(%)	(%)	(%)			
1. The community is fully involved in planning	3	9	8	39	49	108	3.98	1.12
of community-based water project.	(6.5)	(8.3)	(7.4)	(35.2)	(42.6)			
2. There is a community water protection	12	8	9	37	42	108	3.92	1.16
committee on planning selected by the local community	(11.1)	(7.4)	(8.3)	(34.3)	(38.9)			
3. The community water protection committee	8	12	11	32	45	108	3.95	1.20
has final say on water planning	(12)	(11.1)	(10.0)	(29.6)	(37.0)			
4. Participatory project planning allows	6	4	5	43	50	108	4.05	1.04
clarification of problems and identification of solutions within the community	(5.6)	(3.7)	(4.6)	(39.8)	(46.3)			
5. Project team employs project planning	6	8	0	42	52	108	4.10	1.00
strategies in water projects	(5.6)	(7.4)	(0.0)	(38.9)	(48.1)			
6. Project committees have well drafted water	9	11	8	35	51	108	4.03	1.05
abstraction plans	(8.3)	(10.2)	(7.4)	(32.4)	(47.2)			

7. Planning can predict the project duration	7	10	5	33	53	108	4.04	1.02
	(6.5)	(9.3)	(4.6)	(30.5)	(49.1)			
Composite Mean							3.96	1.08

The first statement sought to find out whether the community is fully involved in planning of community based water projects. The results from the Table 4.6 indicate that 49(42.6%) strongly agreed, 39(35.2%) agreed, 8(7.4%) were neutral, 9(8.3%) disagreed and 3(6.5%) strongly disagreed with a mean and a standard deviation of 3.98 and 1.12 respectively. The statement when compared to the composite mean (3.96), this implies that the statement has an influence on the variable as supported by 77.8% who agreed.

On whether there is a community water protection committee on planning selected by the local community, the study obtained the following results; 42(38.9%) strongly agreed, 37(34.3%) agreed, 9(8.3%) were neutral, 8(7.4%) disagreed and those who strongly disagreed 12(11.1%) with a mean and standard deviation of 3.92 and 1.16 respectively. This implies that the statement contributes negatively to the variable and has an influence on the predictor variable being supported by 73.2% of the respondents.

The third statement indicated whether the community water protection committee has final say on water planning. As per the findings on Table 4.6, 45(37.0%) strongly agreed, 32(29.6%) agreed, 11(10.0%) were neutral about the statement, 12(11.1%) disagreed and 8(7.4%) strongly disagreed with a mean and standard deviation of 3.95 and 1.20 respectively. The findings indicate that the statement has a varied contribution on the variable as compared with the composite mean (M=3.96).

The study found out on whether participatory project planning allows clarification of problems and identification of solutions within the community. The results 50(46.3%) strongly agreed, 43(39.8%) agreed, 5(4.6%) were neutral, 4(3.7%) disagreed and 6(5.6%) strongly disagreed with a mean and a standard deviation of 4.05 and 1.04 respectively. The statement when compared to the composite mean (3.96), implies that participatory project planning has a positive contribution on the predictor variable and hence influences the response variable as supported by 86.1% of the respondents who agreed.

The findings obtained from the fifth statement on whether project team employs project planning strategies in water projects, the study obtained the following results as indicated on Table 4.6; 52(48.1%) strongly agreed, 42(38.9%) agreed, none were neutral, 8(7.4%) disagreed and 6(5.6%) strongly disagreed with a mean of 4.10 and a standard deviation of 1.00. The findings imply that project team planning strategies has a positive contribution on the variable as compared with the composite mean 3.96.

The sixth line item statement observed that project committees have well drafted water abstraction plans as per the following results; 51(47.2%) strongly agreed, 35(32.4%) agreed, 8(7.4%) were neutral, 11(10.2%) disagreed and those who strongly disagreed 9(8.3%) with a mean and standard deviation of 4.03 and 1.05 respectively. This implies that the statement contributes positively to the variable and has an influence on the response variable being supported by 79.6\% of the respondents.

The final line item statement sought to find out whether planning can predict the project duration, the study obtained the following results; 53(49.1%) strongly agreed, 33(30.5%) agreed, 5(4.6%) were neutral, 10(9.3%) disagreed and those who strongly disagreed 7(6.5%) with a mean and standard deviation of 4.04 and 1.02 respectively. This implies that the statement contributes positively to the variable and has an influence on the response variable being supported by 79.6% of the respondents.

The researcher further analyzed the qualitative data collected through interview guide to compare with the findings of the quantitative data. The respondents were asked to give their sentiments on whether the project team engages in proper planning on water projects. A member of the water users association had the following response;

Planning of any event should be well designed before everything is laid down. On the part of the project team, the project manager has to take the lead in planning of all the resources for instance financial human resources, environmental resources and also engaging the rightful persons from the community. Water is a very sensitive resource considering most of the residents consume it and use it in their household activities and even animals consume this commodity. Therefore, proper planning requires that all the key stakeholders agree on the deliverables of the Kaichakun water project. The findings from the qualitative analysis revealed that the members of the community were willing to participate in the planning process of the implementation of the water project. These findings are similar to those of Ray (2010) and Rietbergen (2011) who observed that the willingness to involve local people in development decisions affects their lives directly and indirectly. Similarly, Mohammad (2010) opines that people involvement in all development activities especially at planning level enables them to understand the key objectives of any development cannot be fully achieved unless people meaningfully participate in it.

### 4.6 Participatory Decision Making for M&E and Implementation of Community-Based Water Projects

The second objective sought to establish the respondents' views as regards to participatory decision making for M&E. The means and standard deviations of the responses were established from the collected data. The findings for the analysis were as indicated in the Table 4.10.

Sta	atements	1	2	3	4	5	n	Mean	SD
		F	F	F	F	F			
		(%)	(%)	(%)	(%)	(%)			
1.	Community is involved in making	18	17	14	26	33	108	3.21	1.38
	decisions on project design	(16.7)	(15.7)	(12.9)	(24.7)	(30.5)			
2.	Community discusses and on contribution	4(3.7)	6(5.6)	2(1.9)	35(32.4)	61	108	4.20	0.98
	in terms of advice towards the project					(56.5)			
3.	Project team decision processes during	14	11	8	27	48	108	3.80	1.21
	implementation influences project outcome	(12.9)	(10.0)	(7.4)	(25.0)	(44.4)			
4.	Ownership and control of the projects lies	7	10	5	33	53	108	4.10	1.04
	in the hands of the community	(6.5)	(9.3)	(4.6)	(30.5)	(49.1)			

#### Table 4.10: Participatory Decision Making for M&E

5.	Stakeholders engaged in decision making	7	9	8	38	46	108	3.90	1.13
	processes influences implementation of community based water projects	(6.5)	(8.3)	(7.4)	(35.2)	(42.6)			
6.	Water committees have a review process	12	8	9	37	42	108	3.89	1.12
	on the decisions made on water projects	(11.1)	(7.4)	(8.3)	(34.3)	(38.9)			
7.	Actions decided during committee	13	12	11	32	40	108	3.84	1.19
	meetings are implemented	(12)	(11.1)	(10.0)	(29.6)	(37.0)			
Co	mposite Mean							3.82	1.14

The respondents were asked to indicate whether community is involved in making decisions on project design, the findings show that majority of the respondents 33(30.5%) strongly agreed with the statement, 26(24.7%) agreed while 14(12.9%) were neutral, 17(15.7%) disagreed and 18(16.7%) strongly disagreed. The statement drew a mean and a standard deviation of 3.21 and 1.38 respectively.

The study found out on whether community discusses and contribute in terms of advice towards the project. The results from the Table 4.10 indicate that 61(56.5) strongly agreed, 35(32.4%) agreed, 2(1.9%) were neutral, 6(5.6%) disagreed and 4(3.7%)strongly disagreed with a mean and a standard deviation of 4.20 and 0.98 respectively. The statement when compared to the composite mean 3.82, implies that community discussions and contributions towards the project have a positive contribution on the predictor variable as supported by 88.9% of the respondents who agreed.

On whether project team decision processes during implementation influences project outcome, the study obtained the following results; 48(44.4%) strongly agreed, 27(25.0%) agreed, 8(7.4%) were neutral, 11(10.0%) disagreed and those who strongly disagreed 14(12.9%) with a mean and standard deviation of 3.80 and 1.21 respectively. This implies that the statement contributes negatively to the variable participatory decision making since the mean of the line item fall below the composite mean (M=3.80 < M=3.82).

The study findings indicate that ownership and control of the projects lies in the hands of the community positively contributed to the variable participatory decision making with a mean of 4.10 which is greater than the composite mean. The descriptive findings from the Table 4.10 indicate that 53(49.1%) strongly agreed, 33(30.5%) agreed, 5(4.6%) were neutral about the statement, 10(9.3%) disagreed and 7(6.5%) strongly disagreed. This implies that 79.6% of the respondents disagreed with the line item statement.

The study sought to find out on whether stakeholders engaged in decision making processes which influence implementation of community based water projects. The results from the Table 4.10 indicate that 46(42.6%) strongly agreed, 38(35.2%) agreed, 8(7.4%) were neutral, 9(8.3%) disagreed and 7(6.5%) strongly disagreed with a mean and a standard deviation of 3.90 and 1.13 respectively. The statement when compared to the composite mean (3.82), implies that the line item positively contributes to the predictor variable since the statement mean is greater than the composite mean, therefore the variable contributes as agreed by 80.7% of the respondents.

The findings obtained from the sixth statement on whether water committees have a review process on the decisions made on water projects. The results were as follows; 42(38.9%) strongly agreed, 37(34.3%) agreed, 9(8.3%) were neutral, 8(7.4%) disagreed and 12(11.1%) strongly disagreed with a mean and a standard deviation of 3.89 and 1.12 respectively. The findings indicate that the statement has a positive contribution on the variable and hence influence on the response variable justified by the mean of mean 3.82 being lower than the statement mean (M=3.89).

The findings obtained from the final statement on actions decided during committee meetings are implemented. The results were as follows; 40(37.0%) strongly agreed, 32(29.6%) agreed, 11(10.0%) were neutral, 12(11.1%) disagreed and 13(12.0%) strongly disagreed with a mean and a standard deviation of 3.84 and 1.19 respectively. The findings indicate that the statement has a positive contribution on the variable and hence influence on the response variable justified by the mean of mean 3.84 being greater than the composite mean (M=3.82).

The respondents were asked to give their responses in relation to the interview guides that solicited for the qualitative information pertaining participatory decision making on implementation of community based water projects. One of the respondents gave the following narrative;

Project stakeholders need to make decisions that are in line with ensuring that the project is well implemented in community water projects and especially in the Kaichakun Spring water protection. Being part of the project initiation and implementation committee requires that decisions made represent those of the community and are for their benefit now and in future. Decisions pertaining water are very emotive considering the ever bulging population in the society and the number of households in the community against the amount of water per unit household. Participatory decision making requires future predictive analysis.

These findings corroborate with those of Madajewicz, Tompsett and Habib (2017) found colossal advantages of network association in giving the network's own personal public administrations. On the other hand, Korfmacher (2001) highlights that democratic, substantive, and pragmatic rationales support community involvement in decision making. Muniu, Gakuu and Rambo (2017) in their study on the influence of community participation in decision making on sustainability of community water projects in Kenya indicated a significant influence of decision making on implementation of community projects. The findings uncovered that participatory decision-making influences sustainability of success of community-based projects. This concludes the participatory decision making influences implementation of water projects in Kaichakun Spring water protection.

### 4.7 Participatory Stakeholders Identification and Implementation of Community-Based Water Projects

The third objective of the study sought to establish the extent to which participatory stakeholders' identification for M&E influence implementation of community-based water projects in Laikipia west sub-county. The researcher used a 5 point Likert scale where 1= Strongly Disagree (SD), 2 = Disagree (D), 3= Neutral (N), 4 = Agree (A) and 5= Strongly Agree (SA). The findings for the analysis were as shown in Table 4.14.

Statements	1	2	3	4	5	n	Mean	SD
	F	F	F	F	F			
	(%)	(%)	(%)	(%)	(%)			
1. Stakeholder analysis is properly conducted to	7	9	8	38	46	108	3.97	1.10
bring on board all concerned parties.	(6.5)	(8.3)	(7.4)	(35.2)	(42.6)			

Table 4.14: Participatory Stakeholders Identification for M&E

2. Stakeholders participate in project design	12	8	9	37	42	108	3.93	1.12
and M &E planning	(11.1)	(7.4)	(8.3)	(34.3)	(38.9)			
3. All stakeholders are consistently involved in	13	12	11	32	40	108	3.94	1.19
implementation of water projects.	(12)	(11.1)	(10.0)	(29.6)	(37.0)			
4. Stakeholder concerns are handled in an	18	17	14	26	33	108	3.21	1.38
agreeable manner with no decisions being pushed on them.	(16.7)	(15.7)	(12.9)	(24.7)	(30.5)			
5. Amount of time spent by stakeholders in	4	6	2	39	57	108	4.14	1.01
water projects enhances implementation of community water projects	(3.7)	(5.6)	(1.9)	(36.1)	(52.8)			
6. Stakeholder identification through	14	11	8	27	48	108	4.08	1.09
consultationforumsenhancesimplementation of community water projects	(12.9)	(10.0)	(7.4)	(25.0)	(44.4)			
7. Engaging stakeholders in decision making	7	10	5	33	53	108	4.10	1.04
processes influences implementation of community water projects	(6.5)	(9.3)	(4.6)	(30.5)	(49.1)			
Composite Mean							3.91	1.10

As per the findings, the respondents indicated on whether stakeholder analysis is properly conducted to bring on board all concerned parties. The findings were as follows; 46(42.6%) strongly agreed, 38(35.2%) agreed, 8(7.4%) were neutral about the statement, 9(8.3%) disagreed and 7(6.5%) strongly disagreed with a mean of 3.97 and standard deviation of 1.10 respectively. The findings indicate that the line item has a positive contribution to the predictor variable as compared to the composite mean of 3.91 and also supported by 77.8% of the respondents.

On whether stakeholders participate in project design and M&E planning, the data obtained was as shown; 42(38.9%) strongly agreed, 37(34.3%) agreed, 9(8.3%) were neutral, 8(7.4%) disagreed and those who strongly disagreed 12(11.1%) with a mean and standard deviation of 3.93 and 1.12 respectively. This implies that the statement contributes positively to the variable and has an influence on the response variable being supported by 73.2\% of the respondents.

The findings obtained from the third statement on whether all stakeholders were consistently involved in implementation of programs in water projects. The findings were as follows; 40(37.0%) strongly agreed, 32(29.6%) agreed, 11(10.0%) were neutral, 12(11.1%) disagreed and 13(12.0%) strongly disagreed with a mean and a standard deviation of 3.94 and 1.19 respectively. The findings indicate that consistent involvement in implementation of water projects has a positive contribution on the variable participatory stakeholder identification which as compared to the composite mean 3.91 implying that the statement contributes to the predictor variable.

The study obtained the following findings on whether stakeholder concerns are handled in an agreeable manner with no decisions being pushed on them. The results indicated on the Table 4.14 were 33(30.5%) strongly agreed, 26(24.7%) agreed, 14(12.9%) were neutral, 17(15.7%) disagreed and 18(16.7%) strongly disagreed with a mean and a standard deviation of 3.21 and 1.238 respectively. The statement when compared to the composite mean (3.91), this implies that participatory stakeholder identification should be reviewed in how it was structured as it negatively contributes to the predictor variable being justified by the line item being smaller than the composite mean (M=3.21<M=3.91).

The study found that the fifth line item was significant to contributing positively to the predictor variable as per the following obtained findings; 57(52.8%) strongly agreed, 39(36.1%) agreed, 6(1.9%) were neutral, 6(5.6%) disagreed and 4(3.7%) strongly disagreed with a mean of 4.14 and a standard deviation of 1.01 respectively. The statement when compared to the composite mean (3.19), implies amount of time spent by stakeholders in water projects enhances implementation of community water projects and therefore contributes to influencing the response variable as supported by 88.9% of all the respondents who agreed.

The second to last statement of the variable sought to find out whether stakeholder identification through consultation forums enhances implementation of community water projects. The descriptive statistics obtained are as follows; 48(44.4%) strongly agreed, 27(25.0%) agreed, 8(7.4%) were neutral, 11 (10.0%) disagreed and those who strongly disagreed 14(12.9%) with a mean and standard deviation of 4.08 and 1.09 respectively. The findings imply that stakeholder identification through consultation forums contributes positively to the predictor variable influencing the response variable as indicated by the comparison between the composite mean 3.91 against the line item

mean.

The last statement of the variable sought to find out whether engaging stakeholders in decision making processes influences implementation of community water projects. The descriptive statistics obtained indicate that; 53(49.1%) strongly agreed, 33(30.5%) agreed, 5(4.6%) were neutral, 10(9.3%) disagreed and those who strongly disagreed 7(6.5%) with a mean and standard deviation of 4.10 and 1.04 respectively. The findings imply that engaging stakeholders in decision making contributes to the predictor variable as indicated by the comparison between the composite mean 3.91 against the line item mean.

The research linked the quantitative findings of the study with the qualitative findings gathered using interview guides. When asked whether channels of communication the county project team uses to communicate to the residents about ongoing and upcoming water and sanitation projects, a water resource user gave the following response;

Participatory stakeholder identification in every project is vital. Understanding the key, influential and powerful stakeholders is very fundamental as they will provide information that will improve the water projects. However, sometimes identifying these stakeholders is very difficult especially in this area as most of them are involved in other economic activities therefore, a lot of information is left not incorporated in the development and implementation of the water projects. The water resource users association has been able to incorporate the members in other online platforms that we recently thought was very inclusive. So far, the water project is functioning well.

The findings are in line with those of Francisco and Rabechini (2019) in Brazil who observed that partner executives as prescriptively and socially important with the prescriptive giving partners' distinguishing proof, order and checking, and the social suggesting contribution and commitment. Moreover, the discoveries show that administration of partners contributes decidedly to trust connections while contribution and commitment are helpful for connections of trust. In Rwanda, significant findings by Uwimana and Mulyungi (2018) corroborate with the study findings where the study revealed that partners ought to be associated with the whole cycle of venture arranging, usage and finishing. The point when individuals meet up and embrace a participatory

cycle, the correct partners are distinguished and get incorporated into the cycle.

### 4.8 Budgetary Allocation for M&E and Implementation of Community-Based Water Projects

The fourth objective sought to determine the extent to which budgetary allocation for M&E influence implementation of community-based water projects in Laikipia West Sub-County. To measure the extent, the study employed the use of a 5 point Likert scale where 1= Strongly Disagree (SD), 2 = Disagree (D), 3= Neutral (N), 4 = Agree (A) and 5= Strongly Agree (SA). The findings for the analysis were as shown in Table 4.18.

Statements		1	2	3	4	5	n	Mean	SD
		F	F	F	F	F			
		(%)	(%)	(%)	(%)	(%)			
1.	Water committee enforces accountability in	15	13	8	32	40	108	3.80	1.27
	community water projects.	(13.9)	(12.0)	(7.4)	(29.6)	(37.0)			
2.	Appropriations committee allocates monies for	4	6	7	41	50	108	4.05	1.00
	water purification.	(3.7)	(5.6)	(6.5)	(37.9)	(46.3)			
3.	The objectives of the project are clearly explained	5	8	8	38	49	108	4.03	1.04
	to the community beneficiaries.	(4.6)	(7.4)	(7.4)	(35.2)	(45.2)			
4.	The project implemented matches community	12	5	6	40	45	108	3.90	1.13
	needs and priorities and thus community members feel ownership of the project.	(11.1)	(4.6)	(5.6)	(37.0)	(42.6)			
5.	Availability of grants and loans enhances	5	7	10	38	48	108	3.92	1.12
	implementation of community based water projects	(4.6)	(6.5)	(9.3)	(35.2)	(44.4)			
6.	Amount of budgetary allocation influences	7	9	8	38	46	108	3.97	1.10
	execution of planning for implementation of community based water projects	(6.5)	(8.3)	(7.4)	(35.2)	(42.6)			

#### Table 4.18: Budgetary Allocation for M&E

(	Composite Mean							3.89	1.14
	can be accounted for by beneficiaries.	(15.7)	(11.1)	(8.3)	(30.6)	(34.3)			
7.	The revenue collected from water resource users	17	12	9	33	37	108	3.73	1.32

The first statement on the variable sought to find out whether water committee enforce accountability in community water projects. The descriptive findings indicate that 40(37.0%) strongly agreed, 32(29.6%) agreed, 8(7.4%) were neutral, 13(12%) disagreed and 15(13.9%) strongly disagreed with a mean and a standard deviation of 3.80 and 1.27 respectively. The statement when compared to the composite mean (3.89), this implies that the statement has an influence on the variable as supported by 66.6\% who agreed.

On whether appropriations committee allocates monies for water purification, the study obtained the following results; 50(46.3%) strongly agreed, 41(37.9%) agreed, 7(6.5%) were neutral, 6(5.6%) disagreed and those who strongly disagreed 4(3.7%) with a mean and standard deviation of 4.05 and 1.00 respectively. This implies that the statement contributes positively to the variable and has an influence on the response variable being supported by 84.2% of the respondents.

The third statement sought to find out whether the objectives of the project are clearly explained to the community beneficiaries. As per the findings, 49(45.2%) strongly agreed, 38(35.2%) agreed, 8(7.4%) were neutral about the statement, 8(7.4%) disagreed and 5(4.6%) strongly disagreed with a mean and standard deviation of 4.03 and 1.04 respectively. The findings indicate that actual cost of work performed in projects has a positive contribution on the variables. This implies that budgetary allocation is key in implementation of community based water projects.

The study found out that water project implemented matches community needs and priorities and thus community members feel ownership of the project. The results from the Table 4.18 indicate that 45(42.6%) strongly agreed, 40(37.0%) agreed, 6(5.6%) were neutral, 5(4.6%) disagreed and 12(11.1%) strongly disagreed with a mean and a standard deviation of 3.90 and 1.13 respectively. The statement when compared to the composite mean (3.89), implies that the needs of the project beneficiaries has a positive

contribution on the predictor variable and hence influences the response variable as supported by 79.6% of the respondents who agreed.

The findings obtained from the fifth statement on whether availability of grants and loans enhances implementation of community based water projects. The study obtained the following results as indicated on Table 4.18; 48(44.4%) strongly agreed, 38(35.2%) agreed, 10(9.3%) were neutral, 7(6.5%) disagreed and 5(4.6%) strongly disagreed with a mean of 3.92 and a standard deviation of 1.12. The findings imply that availability of grants and loans enhances proper budgeting in community water projects and has a positive contribution on the variable as compared to the composite mean 3.89.

The sixth line item statement sought to find out whether amount of budgetary allocation influences execution of planning for implementation of community based water projects. The study obtained the following results; 46(42.6%) strongly agreed, 38(35.2%) agreed, 8(7.4%) were neutral, 9(8.3%) disagreed and those who strongly disagreed 7(6.5%) with a mean and standard deviation of 3.97 and 1.10 respectively. This implies that the statement contributes positively to the variable and has an influence on the response variable being supported by 77.8% of the respondents.

The final line item statement sought to find out whether the revenue collected from water resource users can be accounted for by beneficiaries, the study obtained the following results; 37(34.3%) strongly agreed, 33(30.6%) agreed, 9(8.3%) were neutral, 12(11.1%) disagreed and those who strongly disagreed 17(15.7%) with a mean and standard deviation of 3.73 and 1.32 respectively. This implies that the statement contributes negatively to the variable.

Qualitative findings gathered using interviews guides were linked to the quantitative findings conducted using descriptive statistics. When the respondents were asked whether their inputs are considered in the project with reference to budgetary allocation, one of the key officials in the committee had this to say;

Budgetary allocation is very fundamental in projects. Water is a key issue to the residents of this county. As an official representing water committee, we have to ensure that whatever we propose in the county town hall sessions is included in the minutes to be tables in the county assembly. Our input is very key and luckily, the officials at the county

# government consider the amount of financial allocation for each water project.

The findings of the current study show that budgetary allocation influences implementation of community based water projects. The outcomes of the study are consistent with those of Rajesh, Priya, Mani and Bhatta (2018) found out that developing a PES-type mechanism seemed both socially acceptable and financially feasible. This is clear from the revelations of the data that majority of the respondents working in water projects were engaged in idea exchange regarding water projects. Similarly, Jack et al, (2008) in their work on structuring payments for ecosystem services: Lessons from prior experience with incentive-based mechanisms found out that water quality monitoring has to be performed to guarantee that water users obtain the advantages they are paying for. Since fiscal transfers entail, it is considered to be beneficial to agree to participate in the proposed institutional arrangements for establishing the Ecosystem Services (ESA) Payments Scheme by the local and sector water authorities concerned.

#### **CHAPTER FIVE**

#### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### **5.1 Introduction**

This chapter summarizes the results, conclusions, recommendations and suggestions. The study aimed at determining an impact on the execution of community-based water projects in the western Laikipia sub county, Kenya, via participatory surveillance and evaluation procedures.

#### **5.2 Summary of Findings**

The summary focused on the key findings obtained from the variables and gave a summary of the findings as per the data analyzed variables in chapter four:

## **5.2.1** Participatory Project Planning for M&E and Implementation of Community-Based Water Projects

The study aimed to establish to what degree participatory M&E project planning had an effect on the execution of water projects in communities. The study's findings indicate that the composite mean and standard variables of the resulting variables were 3.96 and 1.08. The findings indicated that participatory project planning for M&E had an influence on implementation of community-based water projects.

## 5.2.2 Participatory Decision Making for M&E and Implementation of Community-Based Water Projects

The study sought to establish how participatory decision making for M&E influence implementation of community-based water projects in Laikipia County. The outcomes of this study showed that the mean and standard variation between the forecast and the response variable was 3.82 and 1.14. The study concluded that participatory M&E decisions affect the execution of water projects within the community in Laikipia County.

## **5.2.3 Participatory Stakeholders Identification for M&E and Implementation of Community-Based Water Projects**

The third variable was to determine to what degree participatory stakeholders in M&E impact the delivery of community water projects in Laikipia County. The study results shows that the mean-standard deviation between 3.91 and 1.10 on the execution of

community-based water projects was a participatory stakeholder identifier for M&E. The survey showed a favorable beneficial impact on the execution of community water projects in Laikipia County for participatory M&E stakeholder identification.

## 5.2.4 Budgetary allocation for M&E and Implementation of Community-Based Water Projects

The fourth variable is to examine how the M&E budget allocation affects the execution of water projects in the Laikipia County. The research has shown that there was an effect in the mean and standard 3.89 and 1.14 between the M&E budget allocation and the execution of community-based water projects. These statistics indicate that budgetary allocation for M&E had an influence on implementation of community-based water projects in Laikipia County.

#### 5.3 Conclusions of the Study

The research study focused on investigating the Influence of participatory monitoring and evaluation process on implementation of community-based water projects in Igwamiti, Laikipia West Sub-County, Laikipia County, Kenya.

The initial goal was to assess the impact of community-based water projects via participatory M&E project design. The results of the investigation have shown that the presence of participatory project planning allowing for clarification of problems and identification of solutions within the community, project team employing project planning strategies in water projects, project committees having well drafted water abstraction plans and planning predicting the project duration contribute to influencing implementation of community based water projects.

The second aim of the study was to determine how participatory M&E decision-making influences community-based water research initiatives in County Laikipia. The results of the study showed that community discussions and contributions towards the project, ownership and control of the projects by the community, decision making processes, water review processes and actions of the committee meetings influence implementation of community based water projects.

The findings of the research study demonstrated that participatory stakeholder identification for M&E influence implementation of community-based water projects.

The results revealed that conducting stakeholder analysis brings on board all stakeholders, participating in project design by the stakeholders, amount of time spent by stakeholders in the implementation process and consultation forums during stakeholder identification enhance implementation of community water projects.

The fourth objective sought to determine how budgetary allocation for M&E influence implementation of community-based water projects in Laikipia County. The results revealed that allocations of monies for water purification, clarification of project objectives, matching of community needs and priorities, availability of grants and loans enhances implementation of community based water projects

#### **5.4 Recommendations**

The study made the following recommendations;

- The study showed that participation planning for projects is a crucial component in implementing water projects in the community. Therefore, the study suggests it is crucial that other areas of project planning stakeholder involvement are accorded equal consideration during the implementation of community based water projects.
- 2. The government and donor agencies should engage the local communities in the identification and processes of the undertaken projects. This will serve to ensure that the projects do not face eminent collapse after the withdrawal of the sponsorship. As such the project will remain to benefit the community longer.
- In order to raise awareness of the necessity for active involvement in community initiatives the government should also conduct civic education. This increases the community's engagement in the initiatives and increases the community's sustainability.
- 4. The government should further offer training on budgetary allocation to the community project committee to empower the communities on the handling of finances for these projects. As such, the face of the community will be reflected in the project and thus elicit further participation of the community.

#### **5.5 Suggestions for Further Studies**

The study made the following suggestions for further studies;

- 1. Factors influencing Sustainability of ground water management in Laikipia County.
- 2. Stakeholder participation in the management of water resources in Isiolo County, Kenya

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# **APPENDICES**

# **Appendix I: Letter of Transmittal**

*Nduati Eva Wanjiku,* P.O. BOX 1529 20300, Nyahururu, Kenya. November 2020

#### Dear Respondent,

# **RE: REQUEST FOR RESEARCH DATA**

I study at the University of Nairobi, holding a Master's Degree in Project Planning and Management. As part of the award, I conduct a study on the influence of participatory monitoring and evaluation in Laikipia West Sub-Council on the implementation of community-based projects: A case of an Igwamiti Water Project.

You were selected for this research and I invite you to attend by filling out the accompanying questionnaire. Participation is optional and all data collected in this study are processed only for academic reasons and with absolute secrecy and the study conclusions. If you decide to participate in the study, please be as honest as possible and answer all questions correctly.

Thank you

Yours Sincerely,

Eva W. Nduati

#### Appendix II: Research Questionnaire for M&E Team

The questionnaire is intended to collect research information on the impact on the community-based water projects using participatory monitoring and evaluation. There are six sections in the questionnaire. For each section, please reply with a tick [] to all things or fill in wherever necessary.

#### **Important Note:**

The information supplied via the questionnaire is confidential and is for educational purposes solely.

#### **Instruction:**

- i. Do not write your name on the questionnaire.
- ii. Please read each question carefully.
- iii. Please answer all the questions by ticking or filling in the spaces provided.

#### **Section A: Demographic Information**

- Please indicate your gender
   Male [] Female []
- 2. Please indicate your age
  - i. Below 35 years []
  - ii. 36 49 [ ]
  - iii. 50 and above []

#### 3. Educational level of respondents

i.	No education	[]
ii.	Primary	[]
iii.	High School	[]
iv.	Tertiary	[]
v.	University	[]

#### Section B: Participatory Project Planning

**3.** The following are some of activities that are important in planning of Community based water projects; indicate the extent to which your community members participate in various activities on the scale one to five:

(1) Strongly Disagree (SD), (2) Disagree (D), (3) uncertain (U) (4) Agree (A) and (5) Strongly Agree (SA).

Statements	1	2	3	4	5	
1. The community is fully involved in planning of						
community-based water project.						
2. There is a community water protection committee						
on planning selected by the local community						
3. The community water protection committee has						
final say on water planning						
4. Participatory project planning allows clarification of problems and identification of solutions within the community						
5. Project team employs project planning strategies in						
water projects						
6. Project committees have well drafted water						
abstraction plans						

# 7. Planning can predict the project duration

# Section C: Participatory Decision Making

The following are some of activities that are important in participatory decision-making regarding community-based water projects; indicate the extent to which your community members participate in various activities on the scale one to five: 1-Strongly disagree (SD), 2-Disagree (D), 3-Neutral (N), 4-Agree (A) and 5-Strongly agree (SA)

Statements	1	2	3	4	5
1. Community is involved in making decisions on					
project design					
2. Community discusses and on contribution in					
terms of advice towards the project					
3. Project team decision processes during					
implementation influences project outcome					
4. Ownership and control of the projects lies in the					
hands of the community					
5. Stakeholders engaged in decision making					
processes influences implementation of					

- Water committees have a review process on the decisions made on water projects
- Actions decided during committee meetings are implemented

# Section D: Participatory Stakeholders Identification

The following are some of activities that are important Participatory Stakeholders Identification of community-based water projects; To measure the extent, the study employed the use of a 5 point Likert scale where Strongly disagree (SD), 2- Disagree (D), 3- Neutral (N), 4- Agree (A) and 5- Strongly agree (SA)

Statements	1	2	3	4	5
1. Stakeholder analysis is properly conducted to bring on					
board all concerned parties.					
2. Stakeholders participate in project design and M &E					
planning					
3. All stakeholders are consistently involved in					
implementation of programs in water projects.					
4. Stakeholder concerns are handled with in an agreeable					
manner with no decisions being pushed on them.					
5. Amount of time spent by stakeholders in water projects					
enhances implementation of community water projects					
6. Stakeholder identification through consultation forums					
enhances implementation of community water projects					
7. Engaging stakeholders in decision making processes					
influences implementation of community water projects					

# **Section E: Budgetary Allocation**

The following are some of activities that are important Budgetary Allocation of community-based water projects; To measure the extent, the study employed the use of a 5 point Likert scale where Strongly disagree (SD), 2- Disagree (D), 3- Neutral (N), 4- Agree (A) and 5- Strongly agree (SA)

Statements

- 1. Water committee enforces accountability in community water projects.
- 2. Appropriations committee allocates monies for water purification.
- The objectives of the project are clearly explained to the community and they we agreeable to members of community.
- The project implemented matches community needs and priorities and thus community members feel ownership of the project.
- 5. Availability of grants and loans enhances implementation of community based water projects
- Amount of budgetary allocation influences execution of planning for implementation of community based water projects
- The revenue collected from water resource users can be accounted for by beneficiaries.

# Section F: Implementation of Community-Based Projects

The following are some of activities that are important to implementation of community-based water projects; To measure the extent, the study employed the use of a 5 point Likert scale where Strongly disagree (SD), 2- Disagree (D), 3- Neutral (N), 4- Agree (A) and 5- Strongly agree (SA)

Statements		1	2	3	4	5	
1.	The community benefits from water projects.						
2.	There is no effective use of the water from this						
	community water project and it benefits selected						
	members.						
3.	Members of the community continue to enjoy						
	water from the community without disruptions.						
4.	Community members feel that they are fully						
	benefitting from the community water project.						

- Affordability of water services influences implementation of community based water projects
- 6. Customer satisfaction is key in the implementation of community water projects.
- 7. Quality of water will be ascertained when proper implementation is conducted.
- The number of water allocation plans enhances implementation of community based water project

# Thank you for your participation

### **Appendix III: Interview Guide for Community Key Informants**

Questions for call interviews

- 1. Do you think the Community is involved in making decisions on project design?
- 2. Do you feel the community makes decisions on project usage/access rules?
- 3. Does Community discuss and agrees on their contribution towards the project?
- 4. Do you feel that ownership and control of the projects lies in the hands of the community?
- 5. Was thorough stakeholder analysis is done?
- 6. Are Stakeholder concerns dealt with in an agreeable manner with no decisions being pushed on them?
- 7. Is Stakeholders review carried out in order to identify community needs and priorities?
- 8. Do you consider the project implemented to have matched community needs and priorities and thus community members feel ownership of the project?
- 9. Do you feel that the community is benefiting from this water project?
- 10. Do members of the community continue to enjoy water from the community project without disruptions?

#### Thank you for your participation

N	S .	N	S .	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1 <i>5</i> 00	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3 <i>5</i> 00	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Appendix IV: Krejcie and Morgan Table 1970

Note .— Nis population size. S is sample size.

Source: Krejcie & Morgan, 1970

### **Appendix V: Letter for Data Collection**



# UNIVERSITY OF NAIROBI OPEN, DISTANCE AND e-LEARNING CAMPUS SCHOOL OF OPEN AND DISTANCE LEARNING DEPARTMENT OF OPEN LEARNING NAIROBI LEARNING CAMPUS

Your Ref:

Our Ref:

Telephone: 318262 Ext. 120

REF: UON/ODeL/NLC/32/292

Main Campus Gandhi Wing, Ground Floor P.O. Box 30197 N A I R O B I

19th November, 2020

Box 30197

9 NOV 2020

NAIROBI

# TO WHOM IT MAY CONCERN

# RE: NDUATI EVA WANJIKU - REG NO: 150/ 10241/2018

This is to confirm that the above named is a student at the University of Nairobi, Open Distance and e-Learning Campus, School of Open and Distance Learning, Department of Open Learning pursuing Masters of Art in Project Planning and Management.

She is proceeding for research entitled "Influence of Participatory Monitoring and Evaluation on Implementation Process of Community based Water Projects in Kenya: A Case of Igwamiti Water Project, Laikipia West Sub- County, Laikipia County."

Any assistance given to her will be highly appreciated.

CAREN AWILLY CENTRE ORGANIZER NAIROBI LEARNING CENTRE

# **Appendix VI: Nacosti Research Permit**

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