

**FACTORS INFLUENCING PERFORMANCE OF COMMUNITY WATER PROJECTS
IN TIGANIA CENTRAL DISTRICT, MERU COUNTY, KENYA**

BY

SABASTIAN KARITHI JACOB

**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS OF
ARTS IN PROJECT PLANNING AND MANAGEMENT, UNIVERSITY OF NAIROBI**

JUNE, 2017

DECLARATION

I declare that this research project is my own original work and has not been presented in any other University for the award of any degree.

Signature: _____ Date: _____

SABASTIAN KARITHI JACOB

(Reg. NO. L50/79689/2015)

This project report has been presented for examination with my approval as the university supervisor:

Signature _____ Date _____

Prof. Nathan Gichuki

School of biological sciences

University of Nairobi

DEDICATION

This research project is dedicated to my lovely wife Leah Karithi, daughter Lynn Beulah and son Agape Rohi, who gave me encouragement and support to study. I also dedicate it to my mother Joyce Kanungu, father Jakubu Ikamati, Dr. Abraham Mugambi and Dr. Mercy Mugambi for their encouragement to study.

ACKNOWLEDGEMENT

I wish to acknowledge almighty God for His grace, my supervisors; Prof. Nathan Gichuki and Mr. Amos Gitonga for their tireless and selfless effort in offering guidance to me from the start of this study up to its conclusion.

I would like to extend my appreciation to the staff of the University of Nairobi Meru Extra Mural Centre, who have made my study an enriching experience.

May Almighty God bless you.

TABLE OF CONTENTS

Contents	Page
DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES	xi
LIST OF FIGURES	xiii
ABBREVIATIONS AND ACRONYMS.....	xiv
ABSTRACT.....	xv
CHAPTER ONE:INTRODUCTION.....	1
1.1Background to the study	1
1.2 Statement of the problem	2
1.3 Purpose of the study.....	3
1.4 Research objectives.....	4
1.5 Research questions.....	4
1.6 Significance of the study.....	4
1.7 Delimitation of the study	5
1.8 Limitations of the study	5
1.9 Assumptions of the Study	5
1.10 Definitions of Significant Terms	6

1.11 Summary of the study	6
CHAPTER TWO:LITERATURE REVIEW.....	8
2.1 Introduction.....	8
2.2 Overview of water services in different areas of the world.	8
2.2.1 Community participation and performance of community water projects	9
2.2.2 Education and training of leaders and performance of community water projects.....	11
2.2.3 Governance structure and performance of community water projects	13
2.2.4 basic management skills and performance of community water projects.....	15
2.3 Theoretical framework.....	19
2.4 Conceptual framework.....	19
2.4.1. Research gaps.....	21
2.4.2 Summary of literature review	21
CHAPTER THREE:RESEARCH METHODOLOGY	23
3.1 Introduction.....	23
3.2 Research design	23
3.3 Target population	23
3.4 Sample size and sampling procedures	24
3.4.1 Sample Size	24
3.4.2 Sampling Procedure	25
3.5 Data collection instruments.....	25
3.6 Validity and reliability	26
3.7 Methods of Data Analysis.....	26

3.8 Operational definition of variables	27
3.9 Ethical considerations	27
3.10 Summary of the study	27
CHAPTER FOUR:DATA ANALYSIS, PRESENTATION AND INTERPRETATION	30
4.1 Introduction.....	30
4.2 Questionnaire return rate.....	30
4.3 Demographic information.....	30
4.3.1 Distribution of gender respondents	30
4.3.2 The distribution of respondent’s age	31
4.3.3 The respondent highest level of education	32
4.3.4 The number of years from the time water projects was established	33
4.4 Evaluation of water projects performance	33
4.4.1 The existing of the projects office.....	34
4.4.2 Regular meetings of members in six water projects	34
4.4.3 Project cooperation with (WRMA).....	35
4.4.4 Do six water projects have functioning committee?	36
4.4.5 The respondents were asked whether the Projects were registered	36
4.4.6 The respondents were asked whether Maintenance of water infrastructures was well attended.	37
4.5 Community participation in water projects.....	38
4.5.1 Distribution of members in provision of labour towards their water projects	38
4.5.2 Members contribution of resources towards the water projects.....	39

4.5.3 Members look for donors support for the water projects	39
4.5.4 Repairing of broken pipes by members in the six water projects	40
4.5.5 Determination for the engineers or surveyors for the water projects	41
4.5.6 The rate of members aware of rules available for their projects	41
4.5.7 Members attendance of the meetings	42
4.5.8 Description of the member’s participation in meetings	42
4.6 Training of project leaders	43
4.6.1 Qualifications required for being a leader in a project.....	43
4.6.2 Description of the level of education of leaders.....	44
4.6.3 There is a need to train leaders.....	45
4.6.4 Training of leaders is of great important for the projects to succeed.....	45
4.6.5 The level of education of project leaders has positively influenced on the project	46
4.7 Governance structure on projects.....	47
4.7.1 The women constituted the committee members.....	48
4.7.2 The extent that politicians take part in water projects in the communities	49
4.6.3 Involvement of politicians in the community water projects.....	49
4.7.4 External decision makers	51
4.8 Basic management skills in water projects	51
4.8.1 Poor project planning and scheduling has led to incompletion of community-initiated projects.	52
4.8.2 Inadequate safety management skills led to incompletion of initiated projects.....	53
4.8.3 Long decision-making process skills led to incompletion of initiated water projects.	54

4.7.4 Poor leadership skills have led to incompleteness of community initiated projects	55
4.8.5 Water projects have rules for governing members.....	55
4.8.6 Do Members abide to rules and regulations of the projects	56
4.8.7 Projects members comes up with the rules and regulations.....	57
4.8.8 After how long are election carried out in community water projects	57
4.8.9 Do all positions in the committee are up for election	58
CHAPTER FIVE:SUMMARY OF THE FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS.....	60
5.1 Introduction.....	60
5.2 Summary of the findings.....	60
5.3 Discussion	61
5.3.1 Influence of community participation on performance of water projects	61
5.3.2 Influence of training of leaders on projects on performance of water projects.....	62
5.3.3 Influence of governance structure of project on performance of water projects	62
5.3.4 Influence of basic management skills on performance of community water projects	63
5.4 Conclusions	63
5.4.1 Community effective participation.....	64
5.4.2 Education and training of leaders and projects members.....	64
5.4.3 Governance structure on water projects	64
5.4.4 Basic management skills	64
5.5 Further Research Suggestion	65
REFERENCES.....	66

APPENDICES	72
Appendix I: Letter of introduction	72
Appendix II: Questionnaire for respondent	73

LIST OF TABLES

Table 4.1 Distribution of gender in six water projects.....	31
Table 4.2 The distribution of respondent's age	31
Table 4.3 The Respondents highest level of education.....	32
Table 4.4 The number of years from the time water projects were established	33
Table 4.5 The existing of the projects offices.....	34
Table 4.6 Regular meetings of members in six water projects	34
Table 4.7 Project cooperation with (WRMA).....	35
Table 4.8 Does six water projects have functioning committee?	36
Table 4.9 The respondents were asked whether the Projects were registered	36
Table 4.10 The respondents were asked whether Maintenance of water infrastructure were well attended.	37
Table 4.11 Distribution of members' in provision of labour towards their water projects	38
Table 4.12 Member's contribution of resources towards the water projects	39
Table 4.13 Members look for donors support for the water projects.....	39
Table 4.14 Repairing of broken pipes by members in the six water projects	40
Table 4.15 Determination for the engineers or surveyors for the water projects	41
Table 4.16 The rate of members aware of rules available for their projects	41
Table 4.17 Members' attendance of the meeting in six water projects	42

Table 4.18 Description of the member’s participation in meetings	43
Table 4.19 Qualifications required for being a leader in a project	44
Table 4.20 Description of the level of education of leaders	44
Table 4.21 There is a need to train leaders	45
Table 4.22 Training of leaders is of great important for the projects to succeed	46
Table 4.23 The level of education of project leaders has positively influenced on the project	47
Table 4.24 The women constituted the committee members	48
Table 4.25 The extent that politicians take part in water projects in the communities.....	49
Table 4.26 Involvement of politicians in the community water projects	50
Table 4.27 External decision makers	51
Table 4.28 Poor project planning and scheduling has led to incompleteness of projects.	52
Table 4.29 Inadequate safety management skills have led to incompleteness of initiated projects.	53
Table 4.30 Long decision-making process skills have led to incompleteness of community initiated projects.....	54
Table 4.31 Poor leadership skills have led to incompleteness of community initiated projects	55
Table 4.32 Water projects have rules for governing members	56
Table 4.33 Do Members abide to rules and regulations of the projects	56
Table 4.34 Projects members comes up with the rules and regulations	57
Table 4.35 After how long election are carried out in community water projects	58
Table 4.36 Do all positions in the committee up for election?	58

LIST OF FIGURES

Figure 2.1: Conceptual Framework.....	19
---------------------------------------	----

ABBREVIATIONS AND ACRONYMS

CDF	Constituency Development Fund
IIED	International Institute for Environment and Development
MDG	Millennium Development Goals
MP	Member of Parliament
NEMA	National Environment Management Authority
NGO	Non - Governmental Organization
SPSS	Statistical Package for Social Sciences
WRMA	Water Resources Management Authority
WRUA	Water Resource Users Organization

ABSTRACT

Water is an essential commodity for the sustenance of human life and economic progress. However, it is a scarce resource and its access and use often generates competition and conflict among the users. Water Resources Management Authority (WRMA) has provided guidelines on the administrative organization and standard operations of community-based water projects in Kenya. The success or failure (performance level) of a community-based water management project can be influenced by level of community participation and ownership, training and education of the project leaders, governance structure of the project and basic management skills of leaders among other factors such as financial and technical support. Prudent use and management of the water resource is therefore fundamental. The purpose of this study was to investigate factors influencing performance of community water projects in Tigania Central District, Meru County. This research had the following specific objectives: to establish how community participation influences the performance of community water projects, to determine how education and training of leaders influences the performance of community water projects, to examine how governance structure influences the performance of community water projects and to assess how basic management skills of leaders influences the performance of community water projects in study area. The study adopted a descriptive survey design to collect primary data. The target population comprised 3880 people from which a sample of 388 respondents was purposively selected. The sample comprised management committee members and project members in 6 water projects. This study focused on six operational water projects from which 60 management committee members, 328 project members, which constitute the study sample size of 388 respondents. The research tools were questionnaires and interview schedules which were administered to randomly selected individuals in each sample category so as to collect both

quantitative and qualitative data. The data was compiled, given codes and input into SPSS computer programme for statistical analysis and display. The results were displayed in tables and interpreted according to the objectives of the study. Findings of the study reveal that 98% of the projects members established that community participation was the highest factor influencing performance of community water projects. In addition, the study reveals that 35.8% of the respondents wanted their leaders to be trained on financial management. Further, the study established that 79% of the members drawn from all the water projects strongly agreed to the fact that poor planning and scheduling led to incompleteness of community-initiated projects. The conclusion is that more rural people were involved in addressing their own development, confidence and the more the successful level associated with water projects for success. Recommendation is that Projects leaders and members should be trained on effective use of water taps to reduce the loss in quantity or quality of water as it flows from its source through water projects pipes for use to eventual disposal.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Water is a naturally occurring resource that is fundamental for the sustenance of life, biological systems and a vital requirement for social and financial advancement of our nation. Many organizations, both local and global in all parts of the world have actualized water activities to advance safe water supply and sanitation in the rural areas over the past years. For example, UNICEF (2015) reveals that approximately 3 billion individuals or 40% and in America 8% of the total world populace reside in nations where it is hard to get enough water to both sustain and fulfil the fundamental human needs.

The report further alludes that most communities have missed the mark in regard to the Millennium Development Goal (MDGs) focus of decreasing considerably the number of individuals lacking accessibility to safe water supply by 2015. The report demonstrated that in six developing regions of the world, to be specific; Sub-Saharan Africa, Oceania, Latin America, South East Asia, Southern Asia, and Northern Asia, a greater majority of rustic population are still in need of sufficient and safe water supplies. This scenario aggravates the already worse situation in regard to the living conditions of the general population in these regions hence constraining the social economic advancement of the rural economy. Nonetheless, such strides which are geared at expanding new services are threatened of destabilizing the practical sustainability by encouraging hurried building of infrastructure as opposed to the long term, much required interests in operation and support. Yahaya, (2004) conducted a study which covered 11 nations lying south of the Sahara in the African continent, noted that The Millennium Development Goals of the United Nation (MDG's) which was tasked with slashing half wise the

1990 statistics, of persons lacking accessibility to uncontaminated water and hygiene up to 2015, have been imperative in rousing worldwide responsiveness and backing for water and sanitation. Montgomery and Elimelech (2009) contends that what is directly expected to stem the pattern of gloom and quicken the advance in accomplishing MDGs ended in 2015, was a coherent focus on sustainability studies. A study by Habtamu, (2012) in the Amhara region of Ethiopia built up that most water activities decrease in execution soon after outer support is pulled back, He prescribed that further review be done on elements that impact execution of community water extends in other provincial parts of different nations in Africa with a specific end goal to bring a speculation of the discoveries. A study by Kinoti (2010) on private sector contribution to water supply built up that community commitment and mindfulness were principal to water projects execution. He suggested additionally thinks about in different parts of the nation on elements affecting execution of community water management projects in order to improve generalization of the findings.

In Kenya community water projects have always provided a platform to showcase leadership qualities for potential or aspiring politicians. This coupled with slow flow of finances from CDF and other donors has resulted in the incumbent politicians to keep a very close eye on the management and individuals in the committees. A lot of wrangles in the committee have roots in the interference of politicians in these community initiatives. This can be witnessed by the many committees that claim to be legitimate members of the water project. In Siakago, reports from the media (The standard 28th September 2013) indicate the implementation of a water project had been halted due to incitement and wrangles of the area leaders.

1.2 Statement of the problem

Beneficiaries of community water projects regularly complain of poor performance of the projects or projects taking long time to complete and others not complete at all. Water is an

essential commodity for the sustenance of human life and economic progress. According to the UN water report (2008), many regions of the world the accessibility of water in both amount and quality are by and large seriously influenced by climatic fluctuations and environmental change. However, it is a scarce resource and its access and use often generates competition and conflict among the users. According to Mumma (2005), 2.5 million in Kenya get their water from community managed water projects. These systems have always relied on a few enterprising individuals for their initiation and community organization. Water Resources Management Authority (WRMA) has provided guidelines on the administrative organization and standard operations of community-based water projects in Kenya. The success or failure (performance level) of a community water project management can be influenced by level of community participation, training and education of the project leaders, governance structure and basic management skills among other factors such as financial and technical support. Prudent use and management of the water resource is therefore fundamental.

Also, there is no proof for economic gain even to the complete projects after great effort of the members and use of their resources. Because of this, that's why the study is important to investigate factors influencing performance of community water projects. To advance achievement of a given errand determined against present set standards of precision, satisfaction, cost, and speed.

1.3 Purpose of the study

The purpose of this study was to investigate on factors influencing performance of community water projects in Tigania Central Sub-County Meru, County Kenya. (Performance level) The success or failure of a community water projects can be influenced by level of community participation, training and education of the project leaders, governance structure and basic management skills among other factors such as financial and technical support.

1.4 Research objectives

This research was based on these research objectives:

- i. To establish how community participation influences performance of community water projects
- ii. To determine how training of leaders influences performance of community water projects
- iii. To examine how governance structure on projects influences performance of community water projects
- iv. To assess how basic management skills influences performance of community water projects

1.5 Research questions

The following are research questions;

- i. How does community participation influence performance of community water projects?
- ii. In what ways does training of leaders influence performance of community water projects?
- iii. How does governance structure on projects influence performance of community water projects?
- iv. How do basic management skills influence performance of community water projects?

1.6 Significance of the study

Projects are undertaken to fulfill predetermined objectives. If the projects are not completed, then the objectives shall not have been met and resources shall have been wasted. The significance of this study may be used to raise awareness of the importance of completing projects once they have been started for good performance. Secondly, County government might use the findings to emphasizing the completion of projects is part of the development agenda since when the project

is completed the performance is accurately measured. This is development and it is this development that makes the study to be significant. From the study findings policies can be formulated to facilitate and regulate ongoing projects. This study may form a foundation to further studies hence contributing to the wider body of knowledge on community water projects.

1.7 Delimitation of the study

The study on factors influencing performance of community water projects was restricted to Tigania Central District, Meru County. The respondents target in this study was 60 management committee members, 328 projects members as a key informant. Purposely on community participation, training of leaders, governance structure of water projects and basic management skills.

1.8 Limitations of the study

Some persons that form part of the project committee were fearful of revealing some projects information. This challenge was solved by clarifying the aim of the information to be reviewed before correcting data. Utilization of discourse communities to deliberate about the projects was likewise be utilized to diminish pressure in the respondents.

1.9 Assumptions of the Study

The research was to rely on the assumption that the sample selected is representative of the population; it was assumed that the data collection instruments have validity and would measure the intended constructs. The study was also to be based on the assumption that the respondents would provide correct and truthful answers to questions during the study.

1.10 Definitions of Significant Terms

Community Project: A communal activity having a commencing date, precise objectives and requirements, distinct tasks, a budget, design, a distinct commencement date and several parties involved.

Community participation: The procedure through which people, elements and organizations are counseled about or have the chance to end up plainly effectively included in a project or program of movement

Training: The process or art of imparting knowledge, skill and judgment.

Governance structure: The body with the power to make and/or enforce laws to control land area, people or project.

Influence: The ability to influence, control or control something or somebody; the capacity to change the advancement of fluctuating things, for example, lead, thought or choices.

Performance: refers to the execution of a specified errand gauged against known norms of precision, culmination, cost, and speed.

Project: Refers to the planned set of interrelated undertakings to be executed over a settled period and inside certain calculated and cost impediments.

1.11 Summary of the study

This research is organised in five chapters. Chapter One provides the background to the study, statement of the problem, purpose of the study, Research objectives, research questions, Significance of the study, limitations of the study, delimitation of the study, basic assumptions of the study, definitions of the significant terms and organizational of the study. Chapter Two presents literature review on community participation, education and training of leaders and governance structure of projects, theoretical framework, conceptual frame work, Research gaps and summary of literature. Chapter Three describes research methodology which covers research

design, target population, sample size and sampling procedures, Data collection instruments, Data collection procedures, Data analysis techniques, Ethical considerations, and operational Definition of variables. Chapter four addresses data analysis, presentation and interpretation. Finally, Chapter five present summary, discussion, conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the literature related to water projects in various regions of the globe cascading down to Tigania East District in Meru County. It includes findings of related studies undertaken by other researchers. Finally, it presents Theoretical framework, a conceptual framework, research gaps and summary of literature on which the study is based.

2.2 An Overview of water performance in different areas of the world.

Kasiaka, (2004) noticed that statistics indicated that 1.3 billion individuals globally use contaminated water, 800 million are malnourished and without food. Two potential results that ought to concern every one of us about water provision matters are the outcomes for generation which thus bargains the security of the sustenance supply and clashes over control of the water that can happen.

International Institute for Environment and Development (IIED) report by Mulwa, (2008) state that up to US dollars 360 million spent on building boreholes and wells was wasted as a result of poor maintenance of water supply points. An estimated number of 50,000 water supply points are nonfunctional across Africa. The report further indicates that only one third of water points constructed by NGO's in Senegal are working while 58% in Ghana are beyond repair. This is attributed to the fact that the Government and other development agencies do not consult local people on long term sustainability constructs such as operations, maintenance and financial management after termination of external financial support. The culture of constructing water points and then walking away without proper assessment on post implementation maintenance procedures is highly criticized. In a study conducted in Ethiopia funded by African Development Fund (2005), indicated that women in rural areas travel long distances to fetch water, accounting

for two to six hours per day. As the amount of time spent on water fetching increases, women's involvement in other economically beneficial activities significantly decreases. Therefore, water facilities should be as accessible as possible to all segments of the population because of good performance which satisfy water requirements of members of the community.

The Kenyan constitution stipulates all citizens have the guarantee to uncontaminated and safe water in correct amounts. Kenya's Medium Term Plan (2008-2012) stated that water is an asset important to bolster life as well as to support financial exercises in various segments of the economy. Contribution of nearby communities in the administration of water assets through development of water asset clients organization (WRUA) has brought about lessening of unlawful water deliberations and decreased catchments infringement and upgraded recovery of catchment territories and stream bank protection.

2.2.1 Community participation and performance of community water projects

Community should take part in every phase of the project implementation, starting from the planning through the building and managing of the systems. Society and political class are two important forces that cannot be ignored so easily for any project to reach its complete maturity stage. According to Jameel (2009), asserts that while expanded community interest has been upheld as an approach to enhance the nature of open activities and administrations, confirm from randomized assessments gives extremely blended outcomes about its viability by doing this, good performance and long terms arrangements can be found that are suited to their own particular needs and locally accessible assets. As opposed to being forced by pariahs, like development agencies, donors and governments activities ought to tackle the communities own particular challenges which in most cases are different from other communities. According to Mushtaq (2004) In America Community participation is a process by which people from all sectors of the community (rich, poor, Men, women, uneducated and educated) can influence or

control those decisions, which affect their lives. He argues that Community participation is very crucial especially during the initial stages of a project. With clear comprehension on frameworks of their projects, communities will be focused on their undertakings and have a feeling of proprietorship. Eventually people in the community support, is about making an empowering domain for communities to help themselves. In Asia it was observed that using of their own aptitudes and assets communities can remove their initial steps from poverty and move towards sustainable development. And once these fundamental administrations are set up and communities build up the aptitudes and assets for changing their condition they keep on furthering their improvement (Keen, 2007).

A study on decentralization of water resources management in Zimbabwe found that effective dialogue and participation does not automatically occur, raising queries on the assumption that this policy is always effective (Chikozho & Latham, 2005). In Kenya, a study on Improving Water Resources Development and Management by Mogaka, Gichere, Davis & Hirji (2006) observed that catchment administration bunches comprising of upstream and downstream partners, helped by government office staff, frame a principal part to overseeing a large portion of the reasons for debasement. This has appeared by pilot projects supported in Mt Kenya East project to create and exhibit great catchment administration rehearses.

The Kenyan Constitution (2010) resulted in the reforms of previously existing laws, policies and in situations, seeking to expand the space for communities to participate directly in the management of resources within their localities, which is in turn were expected to have a direct effect on their livelihoods. This is indicative of the fact there exists an unmistakable connection between water assets administration and community vocations. Unless destitution and populace issues are joined in water administration, endeavours to accomplish feasible water assets administration may not yield any success (NEMA, 2011). The GOK (2009), states that

pastoralism is a livestock based economic activity that has made due as a business and land utilize framework regardless of changes in ways of life and innovative progressions. Such communities therefore value highly the maintenance of their natural resources especially water because these support their livestock and wildlife which are often their main sources of livelihood.

2.2.2 Education and training of leaders and performance of community water projects

The education and training of the leaders and their competence has an immediate and quantifiable effect on the execution of the organization or project. It is therefore necessary to determine whether the leaders' education what's more, fitness of the project pioneers is a win consider on undertakings and whether distinctive instruction levels are suitable on various sorts of activities. The state government in America make sure nearly everybody knows about projects saw as effective by those included in their usage, while the exceptionally same undertakings are regularly ineffectively gotten by individuals (Pinto & Slevin 1988).

There are projects that devour inordinate assets but are viewed as internal disappointments under class 7 and class 2 leaders, but when given to form 4 and Diploma leaders were later considered as fruitful to the members and turned into a wellspring of income for the individuals for a long time (De Wit, 1986). In South Carolina an equipped pioneers they are often viewed as significantly affecting general water project achievement (Ammeter & Dukerich, 2002; Smith, 1999; Sutcliffe, 1999) they tend to be basic to other project components, for example, the achievement of the project community, including colleagues' inspiration and innovativeness (Rickards, Chen and Moger. 2001). This solid connection with achievement suggests that project pioneer's capabilities enhance good performance in rural water projects.

Moreover, that even where full community investment or administration is arranged from the begin, community level panels and Human limit improvement through specific preparing of project pioneers, community individuals and the entire project community has been noted to be crucial for wander accomplishment and reasonability. Campos (2008), in an arbitration demonstration exhibited in Peru deliberated on community readiness as a fundamental part in which the project utilized different techniques for preparing, for example, sound visuals. Mwangi(2012), noted in their review on supportability of drinking water supply connects in the Area of North Gondar, Ethiopia prescribe that building sufficient aptitudes and ability to keep up water sources is a key part to manage the water framework.

As indicated by the National Institute of Sciences (1997) watched that able working faculty are essentially imperative for maintained and safe operation of little water frameworks. In like manner, great administrator preparing is as fundamental to enhancing little water frameworks as are enhanced advances, hierarchical fixes or administrative oversight. Community individuals must be outfitted with the fundamental information on the best way to work, repair and keep up the water supply framework as this will upgrade common sense of the meander. Advancement which neglects to satisfy the necessities of its clients, which is ineptly familiar or which is hard with keep up or repair, have tremendous troubles for practicality.

Water Help's current maintainability contemplate in Zambia emphasized, for instance, the fast consumption of hand pump as the fundamental imperative to manageable community water supplies (Len, 2003). They search for a buyer, what is secured and how nature of apparatus is ensured are splendidly huge for sensibility. Particularly the connection between the get-together and the suppliers of additional parts are essential.

The social demand ought to be set up on the most capable technique to utilize the springs, taps and even the hand pumps amongst others and it ought to likewise be prepared on the most proficient method to keep up the offices in light of the fact that the outer organizations won't generally be accessible if there should arise an occurrence of breakdowns.

2.2.3 Governance structure and performance of community water projects

Governance structure refers to the body with the power to make and/or enforce laws to control land area, people or project. Which include, planning personnel to execute administrative procedures, risk management, conflict management and reporting. Governance is a procedure of accomplishing a hierarchical objective through composed execution of five particular capacity adopted in American is arranging, organization, staffing, coordinating and controlling; this meets the governance threshold which influences the outcome of a project (Schwartz, 2002).

According to Kioko, (2010) these water projects in Britain provide feasible outcomes; Project engineers should ensure availability of finances to reinforce the recognized responses for the issues in long haul. The productive wander pioneers should have the going with capacities and abilities: flexibility and adaptability, slant for basic movement, forcefulness, sureness, impact, verbal commonality, yearning, imaginative vitality, sudden ness, prepared to alter particular courses of action with phase, budget, and human components, efficient and restraint, a generalist as opposed to an authority, competent and willing to submit to a vast part of his or her a chance to organizing and controlling, prepared to perceive issues, willing to choose, prepared to keep up a genuine change being utilized of time for best performance (Turner & Müller 2005).

For community administration frameworks to be maintainable, they require post development bolster from a directing establishment to give technical assistance, training, monitoring, motivation and encouragement on water projects (Harvey and Reed, 2007).According to Fielmua (2011), in a study conducted in Ghana, community ownership does not imply that the community

won't get bolster from outer sources. Support might be gotten from the legislature or different offices as sponsorships and specialized support. Administration engages communities through bona fide organization to advocate for water administrations. Communities can effectively take an interest in the entire procedure of securing and operation of the offices. This suggests communities need to choose water administration boards of trustees that will be responsible for the administration of water facilities. The communities are in charge of all operation and support cost of the offices. This infers the maintainability of the offices lay on the community.

Okungu (2008), takes note of that 70% of the appointive voting demographics have brought up negligence, false and poor utilize and that Constituency Development Fund (CDF). The reserve has no specific change inspiration; in this way, it rises as a political gadget (Gikonyo, 2008). As showed by the Electoral Commission of Kenya, 60% of legislators who had billions of CDF unspent finances in the CDF financial kitty, had incomplete projects and poor undertakings and were voted out, which warns the M.Ps to deal with the kitty honestly, or face the ferocity of the electorate in 2012 (Radoli, 2008). Along these lines, MPs' execution can be judged in context of their flourishing or deficiency in managing the kitty.

Project leaders have no impact over who their project support is. Supports either self-select, or they are picked due to their position in the organization. On the off chance that you realize that your project support needs energy for the project, or if the support doesn't prefer to state no to individuals who continue attempting to extend the project scope, then the leaders should make sure that they adjust this with harder or more drew in guiding community individuals to ensure the project objective is met (Bunnet, 2009). Governance refers to the leadership and direction of the community. The governance structure on projects enables leaders to articulate and maintaining the community's vision and mission which is shared by all the community members

in all aspect of the organizational activities. This is achieved when the community members work together with the management to articulate issues for the success of the project.

2.2.4 Basic management skills and performance of community water projects

Management systems refer to the mechanism used to co-ordinate activities and facilitate process within the organization. According to research conducted in Europe these systems include organization structure and culture, planning, personnel, administrative procedures, risk management, conflict Management Brooks (2006). An operational definition of water demand management according to International Journal of Water Resource Development 22(4), 521-528 is equally meaning of the two terms, Water Management and Water Production. Water management can be considered as an essential component of water production.

In South America the effective application of water management systems has proven to be of great value to the society with respect to guaranteeing effectiveness, expanding value and diminishing natural harm through the advancement of more prominent communal involvement (Brooks, 2006). Furthermore, an absence of clear significance in defining of the two terms is still encountered in current documented work. Water generation essentially alludes to activities and procedures associated with making water accessible and reasonable for human utilization. On a similar token, the use management of water resources can be viewed as a segment of water generation; be that as it may, it is an idea which frequently winds up noticeably noteworthy after water is delivered. That is, after every one of the procedures expected to make water accessible or channelled through the taps have been accomplished. As indicated by Brooks (2002), water management includes practices or activities outfitted towards maximizing the water being supplied, these activities include viable systems which are focused at enhancing proficiency, distributional value and manageable utilization of water in our communities. In addition, the

managing of water resources is considered as the improvement and execution of instruments geared at ensuring the demands for water are satisfied. The result is to guarantee productive and practical utilization of water as a limited commodity. In any case, the management of water resources ought to mirror a progression of steps that convey water from source to consumption. Along these lines, the management of water resources can be seen inside the crystal of any technique, regardless of whether specialized, monetary, administrative, money related or social that will fulfil at least one purpose.

Similarly, Crigg (1996) made a comparison on the management of water resources to the skill of house building. Crigg attested to the fact that prior to constructing a house we require strategies, plans, details, codes, materials, builders with particular aptitudes and purchasers. As building a house has an arrangement of tenets, water management additionally has an arrangement of standards. Be that as it may, they are more mind boggling than constructing a building. This is on the grounds that it includes arrangements and plans for direction, principles and codes, materials for development and operation, cooperation, abilities, clients and water clients. It is a mind boggling and complicated endeavour.

Following the above elucidation it is evident that the terms water management and water production are interwoven. It will be difficult to settle on one without the other. In this way, we can consider water generation and production enhanced channels as far as innovation and strategy (Brook, 2006). These may incorporate issues, for example, channelling the water through pipes, setting of taps, chlorination, valuation, handling anticipations, adjusting shortfalls and even human emotive matters which may be identified with water. Obviously, this is the place public interest turns into a basic component in water generation and management.

As ably contended by Crigg (1996) in this century overseeing water assets calls for abilities and methodologies that supersede real engineering, science, control or law. To guarantee proficiency, value, and practical utilization of water resident investment is important particularly in creating nations and particularly in Tigania Central where water is viewed as a limited commodity. World Health Organization and Unicef (2006) assessed that in Sub-Saharan Africa between the year 1990-2004, the quantity of individuals without access to clean drinking water rose by 23 percent. In the meantime, the area experienced 85% surge in its urban populace with the lion's share of individuals lacking access to uncontaminated potable water. The goal of this investigation is to critically analyse the input of locals in water production and management specifically in Tigania Central in Kenya.

Management is a process of achieving an organizational goal through coordinated performance of five specific function planning, organization, staffing, directing and controlling; this meets the governance threshold which influences the outcome of a project (Schwartz, 2002).

The fruitful venture pioneers ought to have the accompanying aptitudes and capabilities: adaptability and versatility, inclination for noteworthy activity, vigour, certainty, enticement, fluent communication, aspiration, action, forcefulness, adequacy as a communicator and integrator, wide extent of individual interests, balance, excitement, creative energy, immediacy, ready to adjust specialized arrangements with time, cost, and human components, efficient and trained, a generalist instead of an expert, capable and keen to dedicate the vast majority of his or her time in designing and monitoring, ready to detect challenges, ide, keen to making appropriate decisions and to have in place an appropriate adjustment in relation to time for best execution (Turner and Müller 2005).

The absence of managerial capabilities is an issue that is exceptionally hard to manage in most organizations since the number of senior administration team is essentially restricted. The limitations encountered may be in finances, HR or advertising. Any organization with a management that falls short of these critical things will more often than not face challenges. The answer is to figure out the areas experiencing challenges and thereafter formulating plans to address those difficulties

For communal management frameworks to be manageable, they need post development bolster from a directing organization to give technical assistance, training, monitoring, motivation and encouragement (Harvey and Reed, 2007). According to Fielmua (2011), in a study conducted in Ghana, community ownership does not imply that the community won't get bolster from outside sources. Support might be gotten from the administration or different offices as appropriations and specialized help, however the community must embrace the framework, settle on choices on when to look for help, and activities control over access to the framework. Administration enables groups through veritable organization to advocate for water management. Communities can effectively take part in the entire procedure of obtaining and operation of the offices. This suggests communities need to choose water management board of trustees that will be in charge of the overseeing of water facilities. The communities are in charge of all operations and upkeep cost of the ventures. This infers the manageability of the ventures stops with the community. A bank account for the water facility should be maintained to deposit revenues collected from the new venture; operation and maintenance are kept for good water performance.

According to Fielmua (2011) In Nigeria, rural water projects have suffered as a result of poor coordination, poor maintenance culture, and lack of community ownership, poor technical and institutional structure and over bearing bureaucratic control by various supervising ministries.

Due to lack of management skills this has led to poor operation and maintenance of water projects.

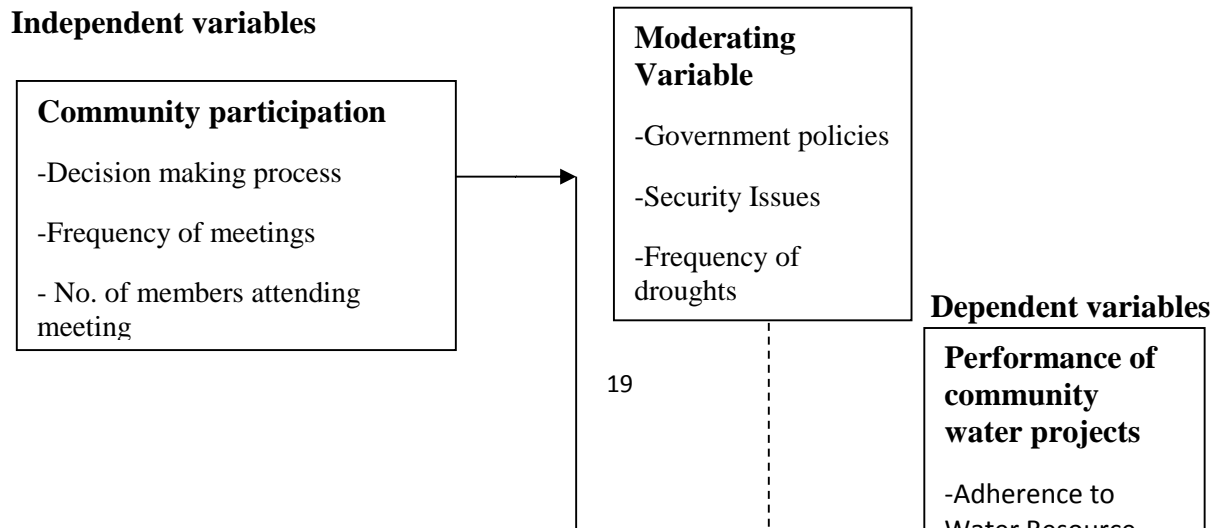
2.3 Theoretical framework

The community participation theory is appropriate for this study because it focuses on encouragement of the active participation of the local community. Without community participation it is not possible to determine what are the problems, constraints, and local desires for a given community. According to Harvey and Reed (2007) participation of project beneficiaries' is of great essence in that it enhances the sense of ownership among members. This is important in ensuring that water projects are operated and maintained after the implementation phase.

Community participation theory assumes that the higher the community participation in decision making, the less the likelihood of interference by of external organizations on that decision. In this theory focus is given on the investment of recipients and not that of staff from the implementing agencies in development projects. Community participation is attained through collaborative or joint involvement of project beneficiaries and the implementing agencies (Khwaja 2004).

2.4 Conceptual framework

This shows variables and indicators and a comparison made on how they influence dependent variable as shown in the figure 1. Conceptual framework



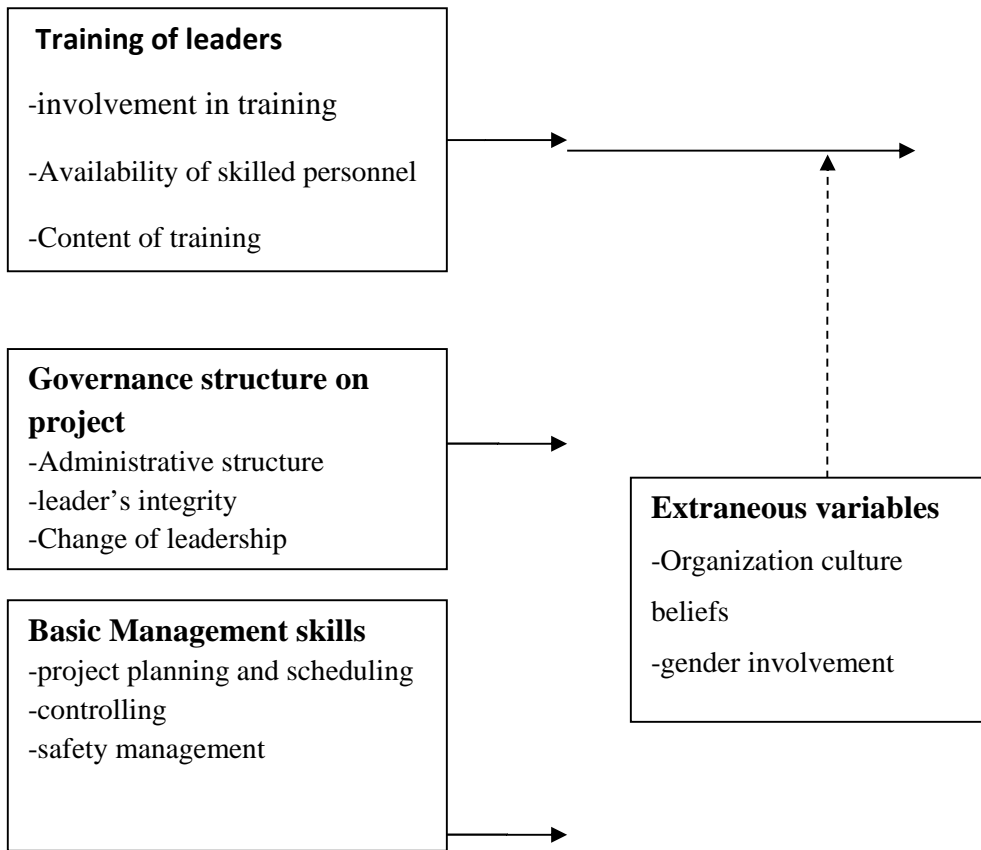


Fig.1. Conceptual framework

Figure 1. Conceptual framework displays the organization between the predictor and outcome variables as well as moderating and extraneous variable. The extraneous variable comprises the organization cultural beliefs, gender involvement and also subscription rates. Moreover, the community participation in water projects, educational and training of leaders, governance structure on projects and basic management skills will influence the performance of community water projects. Nevertheless, outside variables which can't be controlled by administration of the project, for example, government strategies could affect the accomplishment of a project.

2.4.1. Research gaps

This chapter has reviewed the literature on factors influence performance of community water projects. Those are community participation, education and training of leaders, and governance structure on water projects on the performance of water projects in Tigania East Sub County. The literature has revealed that each individual has the privilege to clean and safe water in satisfactory quantities. Yahaya, (2004) conducted a study which covered 11 nations in the south of Sahara in the African continent, noted that MDG's which was tasked with slashing half wise the 1990 statistics, of persons lacking accessibility to uncontaminated water and hygiene up to 2015, have been imperative in rousing worldwide responsiveness and backing for water and sanitation. Nonetheless, such strides which are geared at expanding new services are threatened of destabilizing the practical sustainability by encouraging hurried building of infrastructure as opposed to the long term, much required interests in operation and support. A study by Habtamu, (2012) in the Amhara region of Ethiopia built up that most water activities decrease in execution soon after outer support is pulled back, He prescribed that further review be done on elements that impact execution of community water extends in other provincial parts of different nations in Africa with a specific end goal to bring a speculation of the discoveries. The chapter has also discussed the Conceptual framework and theoretical framework upon which design of the project was based.

2.4.2 Summary of literature review

The researcher reviewed the literature of other researchers in the same field and found out that most researchers had studied the factors causing failure of state water projects funded by government. However, the specific factors influencing performance of community water projects have been comprehensively investigated. Moreover, the community participation in water projects, training of leaders, governance structure on projects and basic management skills will

influence the performance of community water projects. Nevertheless, outside variables which can't be controlled by administration of the project, for example, government strategies could affect the accomplishment of a project. They also agree to vary from one part of the community to the other. This research will seek to establish the factors influencing the performance of community water projects in Tigania East, Meru County.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section deals with the research design, targeted population, sample size and sampling procedure and research instruments validity and reliability, data collection procedures, data analysis techniques, ethical considerations and operational definition of variables.

3.2 Research design

The research utilized descriptive survey design to collect primary data. Descriptive survey research design is appropriate in defining respondents' characteristics (Newby, 2010). This research design was used to collect both quantitative and qualitative data. According to Creswell (2008) quantitative data approach was to measure numerical variables and analyse with descriptive statistical procedures. This design was appropriate for this study because it helped in describing the characteristics of the sampled population and is appropriate for generalising the findings for the entire population.

3.3 Target population

The research population considered was 3880 people who are resident in Tigania central and dependent on community water projects. Those were management committee members and projects members in 6 water projects in Tigania Central Sub-county in Meru County. The researcher specifically target management committee members and project members and interviewing officials such as water development officers and local administrators.

Table 3.1: Target population

Water projects	Total membership
Sisi kwa sisi	480
Antuambugi	560
Kione	350
Mutethia	720
Kunati	1120
Miira	650
Total	3880

3.4 Sample size and sampling procedures

The researcher made arrangements to have all the respondents identified and briefed on the study and administer the questionnaires. The management committee members, project members filled and after two days the researcher collected the questionnaires. Researcher conducted face to face interviews to opinion leaders: such as water development officers and local administrators at their convenient places and recording findings.

3.4.1 Sample Size

Mugenda and Mugenda, (2003) recommended that when a descriptive study design is used a target sample population of 10% is adequate. The researcher used a sample size of 388 of the target population. The sample was randomly obtained from 6 water project in Tigania Central District.

Table 3.2: Sample size allocation to different water projects

Water projects	Management Committee	Project	Total	Sample
Sisi kwa sisi	10	38	480	48
Antuambugi	10	46	560	56
Kione	10	25	350	35
Mutethia	10	62	720	72
Kunati	10	102	1120	112
Miira	10	55	650	65
Total	60	328	3880	388

3.4.2 Sampling Procedure

According to Mugenda (2003) a researcher can either use 10 or 20 percent of the population. However, because of the large sampling area and long distances of the communities' water projects in Tigania central, a sample of 388 respondents was considered sufficiently representative of the target population of 3880. The researcher selected 6 community water projects and purposively select 60 management committee members, 328 project members making a total of 388 respondents.

3.5 Data collection instruments

This study used questionnaires with open and closed ended questions to collect primary data from management committees and project members. This study also used structured interview guide to collect primary data from projects officials' members. Self-administered

questionnaires were appropriate in this study because it covered a big number of respondents in a relatively short time and at the same time ensure confidentiality of the respondents' identity. A structured interview was applied because it provided an opportunity to collect in-depth information through probing which could be left by the self-administered questionnaires.

3.6 Validity and reliability

Validity is defined as the extent that the outcomes gotten from the analysis of the data truly embodies the subject of research (Mugenda and Mugenda, 2003). Veal and Darcy (2012) argues that, validity is the degree level of which the data gathered by the investigator accurately echoes the subject under investigation. The investigator also sought for other researchers' views and from the supervisors concerning the validity of the research instruments.

3.7 Methods of Data Analysis

Mugenda and Mugenda (2003) assert that 1% to 10% of the questionnaires are adequate to be used for piloting. This study used five per cent of the self-administered questionnaires for piloting using test retest method. A mock face to face interview was used to test structured interview guide instrument. The pilot study results were subjected to Cronbach's Alpha test to determine the consistency of the instructors' instruments. The Cronbach constant generally falls between 0 and 1. When this coefficient approaches 1.0, it indicates a higher reliability of the items under investigation. George and Mallery (2003) laid down some guidelines; where

0.9 Excellent (High-Stakes testing) 0.7 < 0.9 Good (Low-Stakes testing), 0.6 < 0.7 Acceptable, 0.5 < 0.6 Poor < 0.5 Unacceptable. When the Cronbach value is equal to or more than 0.6 it indicates the reliability of the instruments. However, when the results are below 0.6 it is an indication of unreliableness of the instruments used.

3.8 Operational definition of variables

The researcher was helped by the project management committees to make arrangements to have all the respondents identified and briefed on the study and administer the questionnaires. Researcher conducted face to face interviews to project officials' members in their convenient places and recording findings. The face to face interview responses were recorded on a note book.

3.9 Ethical considerations

The researcher applied for permit and clearance by the university then the permission was sought from County water Commissioner embarking on data collection. A briefing on data collection was done to ensure participants are aware of what was expected of them. To ensure confidentiality the names, personal numbers or any other forms of identification was not indicated in the questionnaire and the final report. The interviewees were identified as member X when quoting their opinions' in the report to ensure confidentiality.

3.10 Summary of the study

Data collected was subjected to both quantitative and qualitative analysis techniques. Data from self-administered feedback forms was cleaned, coded and inputted into the SPSS software for analysis. Data analysis produced percentages and frequencies and mean for numerical data. Open ended question responses were commune according to themes and analysed as categorical data to produce frequencies and percentages. Data collected from oral interview was presented in narratives, discussions and inferences. The data analysis procedure was focus on the study objectives. The data was subjected to inferential statistics to test relationships between variables for the purpose of making inferences.

Table 3.2 Operational definition of variables

<i>Objective</i>	<i>Type of variable</i>	<i>Indicator</i>	<i>Measure</i>	<i>Scale</i>	<i>Approach of analysis</i>	<i>Type of Analysis</i>	<i>Level of Analysis</i>
<i>To establish community participation</i>	<i>Independent variable:</i>	<i>-Decision making process</i>	<i>Number</i>	<i>Ordinal</i>	<i>Quantitative</i>	<i>Non - parametric</i>	<i>Descriptive Content analysis</i>
		<i>-members participating</i>		<i>Nominal</i>	<i>Qualitative</i>	<i>Non - parametric</i>	
		<i>-No. of members attending meetings</i>				<i>Thematic analysis</i>	
<i>To determine education and training of leaders</i>	<i>Independent variable:</i>	<i>-Type of training</i>	<i>Number</i>	<i>Ordinal</i>	<i>Quantitative</i>	<i>Non parametric</i>	<i>Descriptive Content Analysis</i>
		<i>-Education and training of leaders</i>		<i>Nominal</i>	<i>Qualitative</i>	<i>Non parametric</i>	
		<i>-availability of skilled personnel</i>					
<i>To examine governance structure on water project</i>	<i>Independent variable:</i>	<i>Administrative structure</i>	<i>Number</i>	<i>Ordinal</i>	<i>Quantitative</i>	<i>Non-parametric</i>	<i>Descriptive Content Analysis</i>
		<i>-Governance</i>		<i>Ratio</i>	<i>Qualitative</i>	<i>Non-parametric</i>	
		<i>Structure on water project</i>					
<i>To assess basic management skills</i>	<i>Independent variable: basic management skills</i>	<i>-project planning and scheduling</i>	<i>Number</i>	<i>Ordinal</i>	<i>Quantitative</i>	<i>Non-parametric</i>	<i>Descriptive Content analysis</i>
		<i>-controlling</i>		<i>Ratio</i>	<i>Qualitative</i>	<i>Non parametric</i>	
		<i>-safety management</i>					

<i>Dependent variable:</i>	<i>- No of households connected</i>	<i>Number</i>	<i>Ordinal</i>	<i>Quantitative</i>	<i>Non</i>	<i>Descriptive</i>
<i>Performance of water project</i>	<i>-Volume of water flow ability</i>	<i>Volume</i>		<i>Qualitative</i>	<i>parametric</i>	<i>Content analysis</i>
	<i>-Technology support trained</i>					

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter comprises of data analysis gathered in the study, findings and interpretation. Results are presented in form of tables of frequencies and percentages. The analyzed data is arranged under themes that reflect the research objectives.

4.2 Questionnaire return rate

A total of 388 questionnaires, 48 of which were administered to sisi kwa sisi members, 56 to Antuambugi members, 35 to Kione members, 72 to Mutethia members, 112 to kunati gaint members and 65 to miira members and were all completed. The researcher and research assistants administered the questionnaires themselves by visiting the household and thus achieved 100% response rate.

4.3 Demographic information

The background information of the respondent's is crucial for describing the characteristics of the participants in the study. The respondents were requested to indicate the name of the project they were member, their gender, level of education and the duration the project since established.

4.3.1 Distribution of gender respondents

The researcher maintained gender equality in order to get different perspectives from different sexes.

Table 4.1 Distribution of gender in six water projects

Gender	Frequency's	Percentage
Male	192	49.5 %
Female	196	50.5 %
Total	388	100.0 %

Table 4.2 indicate 49.5% of the respondents were male 192 and 50.5% of the respondents were female 196. The study observed gender sensitivity.

4.3.2 The distribution of respondent's age

The respondents interviewed were of different age groups. They were distributed as follows in Table 4.2

Table 4.2 The distribution of respondent's age

Years	Frequency	Percentage
18-25 Years	44	11.3 %
26-35 Years	117	30.2 %
36-45 Years	132	34.0 %
46-55 Years	78	20.1 %
Above 56 years	17	4.4 %
Total	388	100.0

Table 4.2 indicate 11.3% of the respondents were in the 18 to 25 age bracket, 30.2% of the respondents were in the 26 to 35 age bracket, 34% of the respondents were in the 36 to 45 age bracket, 20.1% of the respondents were in the 46 to 55 age bracket, and 4.4% of the respondents

were above 56 years of age. This implies that majority of the respondents are members within the active stage in life and the date collected was reliable.

4.3.3 The respondent highest level of education

The study was to test if the members of community water projects had basic education skills.

The findings are shown by Table 4.3

Table 4.3 The Respondents highest level of education

	Frequency	Percentage
'O' level	90	23.2 %
Diploma	116	29.9 %
Post graduate diploma	23	5.9 %
Bachelor's Degree	2	0.6 %
Master's Degree	4	1.0 %
Others	153	39.4 %
Total	388	100.0 %

Table 4.3 shows 23.2% of the respondents have only attained the O level education, 29.9% of the respondents have attained their diploma, 5.9% have a postgraduate diploma, 0.5% had a bachelor's degree, only 1% had attained a master's degree, and 39.4% chose not to disclose their highest level of education. This implies that most members had basic education skills.

4.3.4 The number of years from the time water projects was established

The respondents were asked to tick the range in which their various projects established as indicated in the Table 4.4

Table 4.4 The number of years from the time water projects were established

	Sisi kwa Sisi	Antuambugi	Nkione	Mutethia	Kunati	Giant	Miira	percent
2-3 Years	0	2	13	25	0		11	13.1%
4-5 Years	13	0	8	2	0		11	8.8%
6-7 Years	0	2	0	0	0		12	3.6%
8-9 Years	0	7	3	8	16		0	8.8%
10 years and above	35	45	11	37	96		31	65.7%
Total	48	56	35	72	112		65	100.0

Table 4.4 shows 65.7 % members agreed that six community projects were established for over 10 years. This implies that the researcher focused on community water projects that have been in existence for over ten years. This was beneficial in that the members could provide reliable information that will be crucial in understanding factors affecting long-term water projects.

4.4 Evaluation of water projects performance

The researcher wanted to know if the community water projects cooperate with (WRMA) because is the body responsible for planning, management, protection and conservation of water resources. Important tasks are the allocation and monitoring of water resources, as well as enforcing regulations and controlling water use.

4.4.1 The existing of the projects office

Projects office is crucial because it enables leaders and their members to keep good records of the happening of projects activities. So, it is recommended for every community water projects to have an existing office.

Table 4.5 The existing of the projects offices

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	31	33	23	50	112	65	80.9 %
No	7	23	12	22	0	0	19.1 %
Total	48	56	35	72	112	65	100.0

Table 4.5 shows 80.9 % of the members drawn from six community water projects said there is an existing office for the project. 19.1 % of the members drawn from six community water projects said there is no office in existence. Overall, all the community water projects have an existing office.

4.4.2 Regular meetings of members in six water projects

The study was to find out how project members make their meeting in the various community water projects as shown in the Table 4.6

Table 4.6 Regular meetings of members in six water projects

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
--	----------------	-------------	---------	-----------	---------------	-------	------------

Yes	40	36	27	47	96	57	78.1 %
No	8	20	8	25	16	8	21.9 %
Total	48	56	35	72	112	65	100.0

Table 4.6 indicate 78.1 % of members from six projects said that project members meet regularly. 21.9 % of members agreed that project members do not meet regularly. Overall, project members from all the community water projects meet regularly.

4.4.3 Project cooperation with (WRMA)

The respondents were asked if Community water projects cooperate with (WRMA) because is the body responsible for planning, management, protection and conservation of water resources.

Table 4.7 Project cooperation with (WRMA)

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	35	45	35	71	96	57	87.4 %
No	13	11	0	1	16	8	12.4 %
Total	48	56	35	72	112	65	100.0

The Table 4.7 shows 87.4 % of members drawn from six water community water projects said that the projects cooperate with (WRMA). 12.4 % of members drawn from all community water projects said that the projects did not cooperate with (WRMA). This implies that all the community water projects in this research cooperate with (WRMA).

4.4.4 Do six water projects have functioning committee?

The study was to find out if the various community water projects had a functioning committee and the respondents' answers are shown in the Table 4.9

Table 4.8 Does six water projects have functioning committee?

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	40	56	35	72	96	57	91.8 %
No	8	0	0	0	16	8	8.2 %
Total	48	56	35	72	112	65	100.0

Table 4.8 shows 91.8 % of members drawn from the six community water project said that the project has a functional management committee. 8.2 % of members drawn from the six community water project said no functioning management committee. This implies that all the community water projects had a functional management committee.

4.4.5 The respondents were asked whether the Projects were registered

The respondents were asked if the community water projects were registered as described in Table 4.9

Table 4.9 The respondents were asked whether the Projects were registered

Project	Yes	No	percentage
Sisi kwa Sisi	48	0	12.4 %
Antuambugi	56	0	14.4 %
Nkione	35	0	9.0 %

Mutethia	72	0	18.6 %
Kunati Giant	112	0	28.8 %
Miira	65	0	16.8 %
Total	388	0	100.0 %

All members drawn from the six community water projects said that the projects were registered. All water projects were therefore registered.

4.4.6 The respondents were asked whether Maintenance of water infrastructure were well attended.

The study was to find out whether there was maintenance of water infrastructure in the six water projects in the study area.

Table 4.10 The respondents were asked whether Maintenance of water infrastructure were well attended.

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	17	46	14	72	72	34	65.7%
No	31	10	21	0	40	31	34.3 %
Total	48	56	35	72	112	65	100.0

Table 4.10 shows 65.7 % of members drawn from six community water projects said that the maintenance of the water infrastructure was good. 34.3 % of members drawn from sampled

community water project said that the maintenance of water infrastructure was not good. This implies that the maintenance of water infrastructure was fairly good.

4.5 Community participation in water projects

The first objective of the study was to establish how community participation influence performance of community water projects in Tigania Central District. To achieve this objective the respondents were requested to give information on Members provision of labour towards the water projects, their awareness of rules and regulations governing their water projects, the frequency of attendance of meetings by members, members’ participation and its influence on performance of community water projects.

4.5.1 Distribution of members in provision of labour towards their water projects

The respondents were asked to state whether they provide labour in their community water projects as shown in the Table 4.11

Table 4.11 Distribution of members’ in provision of labour towards their water projects

Project	Yes	No	percentage
Antuambugi	56	0	14.4%
Nkione	35	0	9.0%
Mutethia	72	0	18.6%
Kunati Giant	112	0	28.8%
Miira	65	0	16.8%
Total	388	0	100.0%

All members drawn from all community water projects provided labour towards their respective water projects indicating that, 100% provision of labour.

4.5.2 Members contribution of resources towards the water projects

The respondents were asked if they contribute for their projects as tabulated below in the various community water projects.

Table 4.12 Member's contribution of resources towards the water projects

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	47	56	34	71	112	57	97.2 %
No	1	0	1	1	0	8	2.8 %
Total	48	56	35	72	112	65	100.0

Table 4.12 indicate 97.2 % of respondents from six community water projects contribute resources towards the water projects. 2.8 % members drawn from six water projects did not contribute resources towards the water projects. All members from Kunati giant and Antuambugi contribute resources to their water projects. This implies that majority of the members do contribute resources to their respective community water projects.

4.5.3 Members look for donors support for the water projects

The study was to find out if members were concerned with their water projects through relying on donors' support.

Table 4.13 Members look for donors support for the water projects

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
--	----------------	-------------	---------	-----------	---------------	-------	------------

Yes	32	38	26	35	32	12	45.1 %
No	16	18	9	37	80	53	54.9 %
Total	48	56	35	72	112	65	100.0

Table 4.13 shows 45.1 % of members from six community water projects look for donors for their water projects. 54.9 % of members from six community water projects did not look for donors for their water projects. On average, members have less input on looking for donors for their community water projects.

4.5.4 Repairing of broken pipes by members in the six water projects

The study was to investigate the sustainability of the project by knowing if broken pipes were being repaired by projects members.

Table 4.14 Repairing of broken pipes by members in the six water projects

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	45	53	34	62	112	57	93.6 %
No	3	3	1	10	0	8	6.4 %
Total	48	56	35	72	112	65	100.0 %

Table 4.14 state, 93.6 % of members from six water projects; do repair broken pipes for their water projects. 6.4 % of members from six water projects did not repair broken pipes for their water projects. This implies that members do repair broken pipes for their community water projects for sustainability.

4.5.5 Involvement of engineers and surveyors to the water projects

The respondents were asked whether engineers and surveyors were involved in water projects as shown in the table 4.15

Table 4.15 Involvement of engineers and surveyors to the water projects

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	32	44	13	34	48	23	50 %
No	16	12	22	38	64	42	50 %
Total	48	56	35	72	112	65	100.0 %

Table 4.15 Shows that 50% of members from six water projects involved the engineers and surveyors to their water projects while 50% of members from six water projects did not involve the engineers and surveyors to their water projects. On average, engineers and surveyors were involved in all water projects.

4.5.6 The rate of members aware of rules governing their water projects

The study was to find out whether all water projects had rules and regulation that govern them as shown in Table 4.16

Table 4.16 The rate of members aware of rules governing their water projects

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	44	45	35	68	64	65	82.7 %
No	4	11	0	4	48	0	17.3 %
Total	48	56	35	72	112	65	100.0 %

Table 4.16 shows 82.7 % of members from six community water projects do know of rules governing their projects. 17.3 % of members from six community water projects did not know of rules governing their projects. This concludes that majority of members were aware of rules governing their community water projects.

4.5.7 Members attendance of the meetings

The respondents were to answer how member's attendance of the meetings was as indicated in table 4.17.

Table 4.17 Members' attendance of the meeting in six water projects

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Very good	4	17	2	7	8	12	12.9 %
Good	44	35	33	63	64	53	75.3 %
Poor	0	2	0	0	0	0	0.5 %
Very poor	0	2	0	2	40	0	11.3 %
Total	48	56	35	72	112	65	100.0 %

Table 4.17 75.3 % describes members' attendance of meetings was good.12.9% members attendance of the meetings was very good.0.5 % members attendance of meetings was poor. 11.3 % members' attendance was very poor. This implies that members had interest in attending meetings to discuss matters pertaining issues of their water projects.

4.5.8 Description of the member's participation in meetings

The study was to find out the participation of members in the meetings held in their various water projects as in Table 4.18.

Table 4.18 Description of the member's participation in meetings

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Very good	3	13	14	9	8	23	18.0 %
Good	45	41	21	63	64	42	71.2 %
Poor	0	0	0	0	32	0	8.2 %
Very poor	0	2	0	0	8	0	2.6 %
Total	48	56	35	72	112	65	100.0 %

Table 4.18 shows 71.2 % of the members' participation in meetings was good. 18.0 % members' participation was very good. 8.2 % members' participation was poor. 2.6 % members' participation was very poor. This implies that members participated actively in their respective meetings.

4.6 Training of project leaders

The Second objective of the study was to determine how training and education influence performance of community water projects in Tigania Central District. To achieve this objective, the respondents were requested to give information on qualifications required for being a leader in a project, description of the level of education of leaders, the need to train leaders, Training of leaders being of great importance for the projects to succeed.

4.6.1 Whether Qualifications were required for one to be a leader of the project

The respondents were asked to state if there were qualifications required for one to be a leader in a project and the answers were as shown in the table 4.20

Table 4.19 Whether Qualifications were required for one to be a leader of the project

Response	Frequency	Percentage
Yes	339	87.4 %
No	49	12.6 %
Total	388	100.0 %

Table 4.19 shows 87.4% of the respondents said that there were qualifications required to be a leader in the water projects. 12.6% of the respondents said that there were no qualifications required to be a leader in the water projects. This implies that to be a leader for the water projects one has to have acquired certain qualifications like reading and writing.

4.6.2 Description of the level of education of leaders

The respondents were asked to state the level of education of the leaders. Table 4.20 shows the level of their education according to the respondents.

Table 4.20 Description of the level of education of leaders

Response	Frequency	Percentage
They are all highly educated	23	5.9 %
They are all not highly educated	365	94.1 %
Total	388	100.0 %

Table 4.20 shows 5.9% of the respondents described their leaders as highly educated. 94.1% of respondents described their leaders not highly educated. This implies that the current crops of the leaders were not highly educated.

4.6.3 Need to train leaders

The study finds out the need to train leaders as tabulated below according to answers from respondents.

Table 4.21 Need to train leaders

Response	Frequency	Percentage
Yes	372	95.9 %
No	16	4.1 %
Total	388	100.0 %

Table 4.21 state that, 95.9% of the respondents said there is need to train leaders. 4.1% of the respondents said there is no need for training of leaders. This indicates that the members require their leaders to get proper training.

4.6.4 Training of leaders is of importance for the projects to succeed

The respondents were asked to state whether training of leaders was of importance for the projects to succeed as shown in Table 4.22.

Table 4.22 Training of leaders is of importance for the projects to succeed

Response	Frequency	Percentage
Financial management	139	35.8 %
Project management	159	41.0 %
Financial and Project Management	74	19.1 %
None	16	4.1 %
Total	388	100.0 %

Table 4.22 shows 35.8% of the respondents wanted their leaders to be trained on financial management. 41% of the respondents said their leaders needed to be trained on project management. In addition, 19.1% of the respondents said that their leaders needed training on financial and project management. This shows that members drawn from all the six community water projects agreed their leaders could deliver well if trained on the above courses.

4.6.5 The level of education of project leaders positively influenced the project

The respondents were to range if the level of education of project leaders had positive influence on the project. According to Table 4.23

Table 4.23 The level of education of project leaders positively influenced the project

Response	Frequency	Percentage
Very strongly	147	37.9 %
Strongly	168	43.3 %
Less strongly	70	18.0 %
I don't know	3	8.0 %
Total	388	100.0 %

Table 4.23 shows 37.9 % of the respondents stated that the level of education of project leaders influenced the project very strongly. 43.3% of the respondents felt that the level of education of project leaders had strongly influenced the project. 18% of the respondents stated that the level of education of project leaders had influenced the project less strongly. 8 % of the respondents do not know if the level of education of project leaders had any positive influence on the project.

4.7 Governance structure on projects

The third objective of the study was to determine how training influenced performance of community water projects in Tigania Central District. To achieve this objective the respondents were requested to give information on the women who constituted the committee members, the extent that politicians take part in water projects in the communities, Involvement of politicians in the community water projects and others that make decision apart from project members and management committees.

4.7.1 The women who constituted the committee members

The respondents were asked to state the women who constituted the committee members as presented in the table 4.24.

Table 4.24 The women who constituted the committee members

	Sisi kwa Sisi	Antuambugi	Nkione	Mutethia	Kunati Giant	Miira	Percentage
1 - 3 Women	19	3	11	21	72	23	38.4 %
4 - 6 Women	12	38	16	22	16	23	32.7 %
7 - 9 Women	5	0	0	1	16	11	8.5 %
10 - 12 Women	8	0	8	24	8	8	14.5 %
Over 12 Women	2	3	0	3	0	0	2.2 %
Don't know	2	12	0	1	0	0	3.7 %
Total	48	56	35	72	112	65	100.0 %

Table 4.24 shows 38.4 % of the six community water projects had between one and three women among the committee members. Enhanced gender sensitivity was taken into consideration during committee election.

4.7.2 The extent that politicians took part in water projects in the communities

The study established the extent politicians took part in water projects in the communities as indicated by respondents in the various water projects as tabulated.

Table 4.25 The extent that politicians took part in water projects in the communities

	Sisi kwa Sisi	Antuambugi	Nkione	Mutethia	Kunati Giant	Miira	Percentage
Great extent	17	33	1	24	16	23	29.4 %
Some extent	31	23	34	48	80	31	63.7 %
Never involved	0	0	0	0	16	11	6.9 %
Total	48	56	35	72	112	65	100.0 %

Table 4.25 shows that 29.4% of respondents agreed that politicians took part in water projects initiated by communities to a 'great extent'. 63.7% of respondents agreed that politicians took part in water projects initiated by communities to some extent. 6.9% of the respondents agreed that politicians did not take part in water projects initiated by communities. This shows that politicians do have a stake in community water projects.

4.6.3 Involvement of politicians in the community water projects

The respondents were asked to state in which ways politicians are involvement in the community water projects.

Table 4.26 Involvement of politicians in the community water projects

	Sisi kwa Sisi	Antuambugi	Nkione	Mutethia	Kunati Giant	Miira	Percenta ge
Give money for funding	21	13	3	27	24	34	31.4 %
Giving materials	13	28	32	13	16	12	29.4 %
Conduct harambee	0	0	0	16	16	8	10.3 %
Invite donors	0	0	0	8	40	0	12.4 %
Never get involved	4	5	0	7	16	11	11.1 %
Give money and invite donors	0	8	0	1	0	0	2.3 %
Provide materials, invite donors and money	10	2	0	0	0	0	3.1 %
Total	48	56	35	72	112	65	100.0 %

Table 4.26 states that, 31.4% Politicians get involved in water projects initiated by communities in giving money while 29.4% offer support of materials such as pipes. Conducting harambees, and inviting donors were the least likely ways in which politicians got involved with the water projects.

4.7.4 External decision makers

The study finds out that there are others that make decision apart from project members and management committees as shown in table 4.27

Table 4.27 External decision makers

	Sisi kwa	Antuambugi	Nkione	Mutethia	Kunati Giant	Miira	
Donors	2	0	0	3	0	0	1.3 %
Politicians	17	26	29	29	48	42	49.2 %
Government officers	21	30	6	40	64	23	47.4 %
All of the above	8	0	0	0	0	0	2.1 %
Total	48	56	35	72	112	65	100.0 %

Table 4.27 shows Politicians took the centre stage with 49.2 % of respondents saying that they are always involved in decision-making. Government officers came in the second position with 47.4 % of respondents saying they get involved in decision-making. This implies that public figures have a big influence in the overall decision-making over the water projects.

4.8 Basic management skills in water projects

The fourth objective of the study was to assess how basic management skills influenced performance of community water projects in Tigania Central District. To achieve this objective the respondents were requested to give information on how: Poor project planning and

scheduling led to incompleteness of community-initiated projects, long decision-making process skills led to incompleteness of community initiated projects, Election carried out in community water projects and all positions in the committee are up for election.

4.8.1 How poor project planning and scheduling led to incompleteness of community-initiated projects.

The respondent shown how Poor project planning and scheduling led to incompleteness of community-initiated projects as in Table 4.28

Table 4.28 How poor project planning and scheduling led to incompleteness of community-initiated projects.

	Sisi kwa	Antuambugi	Nkione	Mutethia	Kunati	Miira	Percentage
Strongly Agreed	39	35	30	49	88	65	78.9 %
Agreed	7	12	4	14	24	0	15.7 %
Disagreed	2	7	1	8	0	0	4.6 %
Strongly Disagreed	0	2	0	1	0	0	0.8 %
Total	48	56	35	72	112	65	100.0 %

Table 4.28 shows that 78.9 % of members drawn from all the water projects strongly agreed to the fact that poor planning and scheduling led to incompleteness of community-initiated projects.

This implies that incompleteness of community-initiated projects were due to poor project planning and scheduling.

4.8.2 How inadequate safety management skills led to incompleteness of initiated projects.

The respondents stated that inadequate safety management skills led to incompleteness of community initiated projects in high rate as tabulated in Table 4.29

Table 4.29 How inadequate safety management skills led to incompleteness of initiated projects.

	Sisi kwa	Antuambugi	Nkione	Mutethia	Kunati	Miira	Percentage
Strongly Agreed	21	27	16	29	64	12	43.6 %
Agreed	27	20	16	31	48	53	50.3 %
Disagreed	0	5	1	9	0	0	3.8 %
Strongly Disagreed	0	4	2	3	0	0	2.3 %
Total	48	56	35	72	112	65	100.0 %

The Table 4.29 shows 50.3 % of members drawn from all the water projects generally agreed that inadequate safety management skills led to incompleteness of community-initiated projects. This implies that inadequate safety management skills were a major drawback in the incompleteness of community initiated projects.

4.8.3 How long decision-making process skills led to incompleteness of community initiated projects.

The respondents were asked to range how long decision-making process skills have led to incompleteness of community initiated projects as indicated in the table below.

Table 4.30 How long decision-making process skills led to incompleteness of community initiated projects.

	Sisi kwa	Antuambugi	Nkione	Mutethia	Kunati	Miira	Percentage
Strongly Agreed	36	38	21	22	112	42	69.8 %
Agreed	9	13	11	15	0	23	18.3 %
Disagreed	1	3	3	17	0	0	6.2 %
Strongly Disagreed	2	2	0	18	0	0	5.7 %
Total	48	56	35	72	112	65	100.0 %

Table 4.30 shows over 69.8 % of respondents strongly agreed to the fact that long decision-making process skills led to incompleteness of community initiated projects. This implies that long decision-making process skills had a serious negative impact in the incompleteness of community-initiated projects.

4.7.4 How poor leadership skills led to incompleteness of community initiated projects

The respondents were asked to range how long decision-making process skills led to incompleteness of community initiated projects as shown in Table 4.31.

Table 4.31 How poor leadership skills led to incompleteness of community initiated projects

	Sisi kwa Antuambugi	Nkione	Mutethia	Kunati	Miira	Percentage	
Strongly Agreed	27	26	23	26	80	54	60.8 %
Agreed	16	21	8	35	16	11	27.6 %
Disagreed	4	7	4	6	16	0	9.5 %
Strongly Disagreed	1	2	0	5	0	0	2.1 %
Total	48	56	35	72	112	65	100.0 %

Table 4.31 over 60.8 % of respondents strongly agreed to the fact that poor leadership skills have led to incompleteness of community-initiated projects. This implies that poor leadership skills experienced in the water projects led to incompleteness of the projects.

4.8.5 Whether water projects had rules for governing members

The respondents were to indicate whether the Water projects had rules for governing members as described in table 4.32.

Table 4.32 Whether water projects had rules for governing members

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	48	56	35	72	112	65	100.0 %
No	0	0	0	0	0	0	0.0 %
Total	48	56	35	72	112	65	100.0 %

Table 4.32 state that, 100 % of the respondents confirmed that the community water projects had rules that governed members. This implies that the water projects have set rules that govern members to achieve their objectives and goals

4.8.6 Do Members abide to rules and regulations of the projects

The study was to find out, whether the Members do abide to rules and regulations of the projects as shown by Table 4.33.

Table 4.33 Do Members abide to rules and regulations of the projects

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	7	26	1	21	32	0	22.4
No	41	30	34	51	80	65	77.6
Total	48	56	35	72	112	65	100.0 %

According to Table 4.33 despite the community water projects having rules, over 77.6 % of respondents agreed on not abiding to rules and regulations. However, 22.4 % do abide to rules and regulations of the projects hence resulting to delaying of projects completion.

4.8.7 Projects rules and regulations formulating bodies

The respondents were asked to identify who most come up with the rules and regulations in the water projects as shown in table 4.34.

Table 4.34 Projects rules and regulations formulating bodies

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Management	8	17	1	3	10	0	10.1 %
Committee members							
Projects members	40	36	34	52	72	53	74.0 %
experts	0	0	0	17	2	0	4.9 %
Donors	0	1	0	0	12	12	6.4 %
I don`'t know	0	2	0	0	16	0	4.6 %
Total	48	56	35	72	112	65	100.0 %

Table 4.34 shows 74.0 % Most of the community water projects' project members came up with the rules and regulations. This makes members to have ownership of projects.

4.8.8 Period after which election is carried out in community water projects

The respondents were asked to state after how long elections were being conducted in community water projects as tabulated in Table 4.35.

Table 4.35 Period after which election is carried out in community water projects

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yearly	2	3	2	4	10	0	5.4 %
After 2 years	4	1	0	4	2	12	5.9 %
After 3 years	22	22	33	58	54	53	62.4 %
None of above	20	30	0	6	46	0	26.3 %
Total	48	56	35	72	112	65	100.0 %

The Table 4.35 shows that 62.4 % of members from the water projects said that elections were carried out after every three years. 26.3 % of members indicated that elections are never carried out. Therefore, Most of the water projects organize elections after three years.

4.8.9 Whether all positions in the committee was up for election

The respondents were asked whether all positions in the committee are up for election and their response are captured in the table 4.36.

Table 4.36 Whether all positions in the committee was up for election

	Sisi kwa Sisi,	Antuambugi,	Nkione,	Mutethia,	Kunati Giant,	Miira	percentage
Yes	30	35	12	55	54	54	61.9 %
No	18	21	23	17	58	11	38.1 %
Total	48	56	35	72	112	65	100.0 %

Table 4.36 shows that 61.9 % of the positions in the committee were up for elections while 38.1 % positions in the committee were not up for elections. This indicates most of positions in the committee were up for elections.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter comprises of summary of the findings, discussion, conclusion and recommendations. Finally, suggestion for further studies.

5.2 Summary of the findings

The influence of the community participation on performance of community water projects found that 98% of the projects members established that community participation was highest factor that influence performance of community water projects. The study in Table 4.2 found that in the six water projects 49.5% of the respondents were male represented by 192 while 50.5% of the respondents were female represented by 196. Therefore, female gender participated more than male in community water projects.

Training of the leaders on performance also influenced community water projects. The study in Table 4.22 shows 35.8% of the respondents wanted their leaders to be trained on financial management. 41% of the respondents said their leaders needed to be trained on project management. In addition, 19.1% of the respondents said that their leaders needed training on financial and project management. This shows that members drawn from all the six community water projects agreed their leaders could deliver better if trained on the above courses.

Governance structure of project had influence on performance of community water projects. The study in Table 4.25 found out that 29.4% of respondents agreed that politicians took part in water

projects initiated by communities to a 'great extent'. 63.7% of respondents agreed that politicians took part in water project initiated by communities to some extent. 6.9% of the respondents agreed that politicians did not take part in water projects initiated by communities. This shows that politicians do have a stake in community water projects.

Finally, basic management skills of leaders also influenced performance of community water projects. Table 4.28 shows that 78.9 % of members drawn from all the water projects strongly agreed to the fact that poor planning and scheduling led to incompleteness of community-initiated projects. This implies that incompleteness of community-initiated projects were due to poor project planning and scheduling.

5.3 Discussion

Discussion of the findings of the research is presented based on the four objectives of the study.

5.3.1 Influence of community participation on performance of water projects

According to Jameel (2009), asserts that while expanded community interest has been upheld as an approach to enhance the nature of open activities and administrations, confirm from randomized assessments gives extremely blended outcomes about its viability by doing this, good performance and long terms arrangements can be found that are suited to their own particular needs and locally accessible assets. This is supported by findings according to Table 4.12 that indicate 97.2 % of respondents contribute resources towards their six community water projects. 2.8 % of the members drawn from six water projects did not contribute resources towards their water projects. All members from Kunati giant contribute resources to their water project. This implies that all members do contribute resources to their respective community water projects.

Mushtaq (2004) In America Community participation is a process by which people from all sectors of the community (rich, poor, Men, women, uneducated and educated) can influence or control those decisions, which affect their lives. He argues that Community participation is very crucial especially during the initial stages of a project. With clear comprehension on frameworks of their projects, communities will be focused on their undertakings and have a feeling of proprietorship. Which agree with study on Table 4.14 that state, 93.6 % of members from six water projects do repair broken pipes for their water projects while 6.4 % of the members from six water projects did not repair broken pipes for their water projects. This implies that members do repair broken pipes for their community water projects for sustainability.

5.3.2 Influence of training of leaders on performance of water projects.

The state government in America make sure nearly every leader knows about running of the projects, while the exceptionally same undertakings are regularly ineffectively gotten by individuals (Pinto & Slevin 1988). This is supported by the study on Table 4.19 that shows 87.4% of the respondents said that there are qualifications required to be a leader in the water projects. 12.6% of the respondents said that there are no qualifications required to be a leader in the water projects. This implies that to be a leader for the water projects then you need to have acquired certain qualifications like reading and writing.

5.3.3 Influence of governance structure of project on performance of community water projects

Kioko, (2010) these water projects in Britain provide feasible outcomes; Project engineers should ensure availability of finances to reinforce the recognized responses for the issues in long haul. The productive wander pioneers should have the capacities and abilities: clearly supported by study on Table 4.27 shows Politicians took the centre stage with 49.2 % of respondents saying

that they are always involved in decision-making. Government officers came in the second position with 47.4 % of respondents saying they get involved in decision-making. This implies that public figures have a big influence in the overall decision-making for the water projects.

5.3.4 Influence of basic management skills on performance of community water projects

According to Fielmua (2011) In Nigeria, rural water projects have suffered as a result of poor planning, co-ordination, poor maintenance culture, and lack of community ownership, poor technical and institutional structure and over bearing bureaucratic control by various supervising ministries. This was supported by the finding on Table 4.28 showing that 78.9 % of members drawn from all the water projects strongly agree to the fact that poor planning and scheduling had led to incompleteness of community-initiated projects. This implies that incompleteness of community-initiated projects were due to poor project planning and scheduling.

5.4 Conclusion

The provision of safe and adequate drinking water to rural communities is a basic necessity. It is obvious from the results of this study that water projects are facing a number of challenges. However, projects members and the government should show serious attention and commitment for the success of water projects. Therefore, governments should address the major issues constraining the proper implementation of the water projects in the area in order to improve performance in the community water projects. Specifically, the government must create the desired awareness on how the water projects can be successful by use of personnel who have done research on water projects. The more rural people are involved in addressing their own development, the more confidence and successful level associated with their water projects.

5.5 Recommendations.

For the successful performance of the community water projects these recommendations should be observed;

5.5.1 Community effective participation

Emphasis on community effective participation in the development and management of a community water projects is a sure sign that the project has a bright chance of functioning optimally on a sustainable basis.

5.5.2 Training of leaders and project members

Project leaders and members should be trained on effective use of water taps to reduce the loss in quantity or quality of water as it flows from its source through water projects pipes for use to eventual disposal.

5.5.3 Governance structure on water projects

Leaders to increasing the ability of the water system to continue to serve society during times when water is limited like use bore hole and solar system to pump water to the main tank connected with projects pipes.

5.5.4 Basic management skills

Managing of water projects through monitoring and controlling the quantity or improving the quality of water needed in accomplishing a particular task. Shifting the time of use from peak hours to off peak periods to make water more equitable: Because of less water in river during dry seasons.

5.6 Further Research Suggestion

The researcher recommends further research to be carried on other factors influencing performance of community water projects in Tigania Central District, Meru County.

5.6.1 Management action

Further research should be done on monitoring and evaluation to initiated projects to find out how they influence performance of community water projects.

5.6.2 Policy interventions

Further research should be done on integration of new technology and infrastructural policy in a devolved system of government for improvement in performance of community water projects.

REFERENCES

- Ademiluyi, I.A. and Odugbesan, J. A. (2008). *African Journal of Agricultural Research* Vol. 3 (s12), pp. 811-817, December, 2008.
- Ammeter, A. P., & Dukerich, J. M. (2002). Leadership, team building, and team member characteristics in high performance project teams. *Engineering Management Journal*, 14 (4), 3-10.
- Brooks, D. B. (2002). *Water: Local-level Management* (Ottawa: International Development Research Centre), aussi disponible en francais comme L' eau: gerer localement
- Brooks, D. B. (2006). An operational definition of water demand management. *International Journal of Water Resource Development* 22(4), 521-528.
- Bunnet, W. (2009). *Principles and Practice of Marketing*, 2nd Edition Jennifer Pegg Cambridge, USA
- Creswell, J. (2008). *Research design: Qualitative, quantitative, and mixed methods approaches*. Los Angeles: SAGE publications
- Campos, M. (2008). *Making sustainable water and sanitation in the Peruvian Andes: An Intervention Model*. *Journal of Water and Health* 6 (1) 2008.
- Chikozho, C. & Latham, C. J. K. (2005). *Implications of customary law for implementing integrated water resources management in Zimbabwe: Considerations of Shona*

customary law as an institutional alternative. Paper presented at the workshop on ‘African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa’, Johannesburg, 26–27 January.

De Wit, A. (1986). Measuring project success: An illusion. Proceedings of the 18th Annual Seminar/Symposium (Montreal/Canada), 13-21. Upper Darby, PA: Project Management Institute.

Figuerre, C., (2003), *Rethinking Water Management*, Earthscan Publication Ltd, USA.

Fielmua, N. (2011). *The role of the community ownership and management strategy towards sustainable access to water in Ghana : A case of Nadowli district.* Journal for sustainable development Vol4, No.3

Gikonyo, W. (2008). *The CDF social audit guide: A handbook for communities.* Open Society Initiative for East Africa, Nairobi.

GoK. (2009). *Kenya National Environment Action Plan (2009-2013).* National Environment Management Authority (NEMA), Ministry of Environment and Mineral Resources (MEMR), Government of Kenya (GoK), Nairobi.

Habtamu, B. (2012). *Factors Affecting the Sustainability of Rural Water Supply Systems. The Case of Mecha Woreda Amhara Region, Ethiopia.* Unpublished Thesis of Cornell University.

Harvey, P.A. and Reed, R.A. (2007). *Community-Managed Water Supplies in Africa:*

Sustainable or Dispensable?' Community Development Journal 42(3): 365.

Jameel, A.L., (2009). Community Participation, Poverty Action Lab

www.povertyactionlab.org/policy-lessons, Retrieved on 19.03.2014

Khwaja, A.I. (2004). *Is Increasing Community Participation Always a Good Thing?*

Journal of the European Economic Organization

Keen. J. J. (2007). *Methods of initiating community participation in water supply and sanitation Programs.*

Kasiaka, K., (2004). *Participatory Planning and Sustainability of Water TASAF Water.*

Kinoti M. J. (2010). *Factors Affecting the Performance of Private sector in Delivery of water services.* A Case of Imeti Water and Sanitation Company, Buuri District, Kenya
Unpublished Thesis of the University of Nairobi.

Kioko, J., (2010). *Project Management; Monitoring and Evaluation.* Richmond Designers and Printers

Len, A. (2003). *Understanding Sustainability of Local Water Services; Water Policy International, South Africa.*

Mulwa, F., (2008). *Participatory Monitoring and evaluation of community projects.* Paulines Publications Africa. Nairobi. Kenya

Mumma, A. (2005), Kenya's new water law: an analysis of the implications for the rural poor, International workshop on „African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa“, 26-28 January 2005, Johannesburg, South Africa.

Mugenda, O., & Mugenda, A. (2003). Research Methods: Qualitative and quantitative approaches. Nairobi: Acts press.

Montgomery, M. and Elimelech, M. (2009). *Increasing Functional Sustainability of Water and Sanitation Supplies in Rural Sub-Saharan Africa*. Journal of Environmental Science Technology Vol. 26, No. 5, pp. 1017-1023.

Mushtaq.A.M (2004). *Community participation in water supply and sanitation schemes around Hyderabad, Pakistan*.

Mwangi. (2012). *Influence of Financial Management on the Sustainability of Community Managed Water Supply Projects in Kieni West District, Nyeri County, Kenya*: Unpublished Thesis of the University of Nairobi.

Newby, P. (2010). Research methods for education. London: Pearson education limited.

NEMA. (2011). *Kenya: State of the Environment and Outlook 2010*. NEMA: Nairobi.

National Academy of Sciences (1997). Kenya

Okungu, J. (2008), The beauty and shame of Kenya's Constituency Development Fund.

[Online] Available: <http://www.afroarticles.com/articledashboardarticle.php?id=637&act=print>.

Pinto, J. K., & Slevin, D. P. (1988). Project Success: Definitions and Measurement Techniques.

Project Management Journal, 19(1), 67–72.

Rickards, T., Chen, M. & Moger, S. (2001). Development of a self-report instrument for

exploring team factor, leadership and performance relationships. *British Journal of Management*, 12(3), 243-250.

Radoli, M. (2008). "CDF- A double-edged sword." *The CDF Insight*. Nairobi, Kenya.

Turner, J.R. & Müller, R. (2005). The project manager's leadership style as a success factor on

projects: a literature review. *Project management journal*. 36 (1). pp. 49-61.

Veal, A. J., & Darcy, S. (2012). Research methods in sport studies and sport management: A

practical guide. New York: Routledge.

Wamugo, J. (2007). *CDF Takes a bend in the river*. Nairobi: Adili.

<https://www.kansascityfed.org/people/craighakkio> (august 1996). *Journal of Monetary*

Economics,

Were, E., Swallow, B., & Roy, J. (2006). *Water, women, and local social organization in the Western Kenya highlands*. CAPRI Working Paper No. 51. Washington, D.C.

Yahaya, S. (2004). *Meeting the Targets for Water Supply and Sanitation: The African Challenge*, Operation Policy and Review Department, ADB pp. 323, Tunis.

APPENDICES

Appendix I: Letter of introduction

SABASTIAN KARITHI JACOB

NGAGE VILLAGE

P.O. Box 90

MIKINDURI

22nd January, 2016

Dear Sir/madam,

RE: LETTER TO RESEARCH PARTICIPANT

I am a student at the University of Nairobi pursuing Master of Arts (project planning and management). I am conducting an academic research on factors influencing performance of community water projects in Tigania East, Meru County.

I hereby request you to kindly assist me by filling in this questionnaire as accurately and honestly as possible. The data collected will be purely for academic purpose and the identity of research participants will be confidential.

Yours faithfully,

Sabastian Karithi Jacob.

Appendix II: Questionnaire for respondent

This questionnaire is meant to collect research data for my Masters studies. You have been selected as one of the respondents for this study to assist me collect data on factor influencing performance of community water projects. Kindly provide your honest responses on all the items in this questionnaire. Your identity will be treated with strict confidentiality.

Section A: Demographic information.

Please answer the following questions by:

(A). Ticking your answer choice from options provided.

(B). Where applicable explain or make your suggestions on the spaces provided.

1. Please tick your sex Female Male

2. What is your age bracket? 18 - 25 years 26 - 35 years 36 - 45 years 46 – 55 years
 above 56 years

3. What is your highest level of education 'O' level Diploma Post graduate diploma
bachelor's degree Master's degree others

4. How long ago was the community water project established?

A. 0 – 1 year () B. 2 – 3 years () C. 4 – 5 years ()

D. 6 – 7 years () E. 8 – 9 years () F. 10 years and above ()

Section B: Evaluation of water projects performance

5. Please tick appropriately

No	Questions	Project 1	Project 2	Project 3	Project 4	Project 5	Project 6
		Sisi kwa sisi	Antuambugi	Nkione	Mutethia	Kunati Giant	Miira
1.	Does the project have the existing office?						
2.	Do project members meet regularly?						
3.	Do project cooperate with WARMA?						
4.	Does the project have functional management committee?						
5.	His project registered?						
6.	His maintenance of water infrastructure fair?						

Section C: community participation in water projects

6. Tick in any of the ways in which members are involved in water project

a. providing labour	
b. contributing resources	
c. looking for donors	
d. repairing of broken pipes	
e. determining the engineers or surveyors	

7. Do you know of any rules available for your project members?

(a) Yes [] (b) No []

8. How do you describe the members' attendance of the meetings?

(a) Very good [] (b) good []

(c) Poor [] (d) very poor []

9. How do you describe the members' participation in meeting?

(a) Very good [] (b) good []

(c) Poor [] (d) very poor []

Section D: Education and training of leaders

10. (A) Are there any qualification required to be a leader in projects?

a. Yes

b. No

(B) If yes, clarify

11. How do you describe the level of education of your leaders?

They are all highly educated []

All are not high educated []

12. (A) Do you think there is need to train leaders?

Yes [] No []

(B) If yes, what are important areas could training purpose?

a. financial management

b. projects management

13. According to you do you think the level of education of projects leaders has positively impact on project?

a. very strongly

b. strongly

c. less strong

d. I don't know

Section E: Governance structure on projects

14. How many committee members do you have and how many are women in the project?

.....

15. To what extent do politicians take part in water projects initiated by communities?

a) Great extent []

b) Some Extent []

c) Never Involved []

16. Explain your answer in question 19 above?

.....
.....

17. Who are involved in decision making apart from project members and management committees?

(a) Donors

(b) Politicians

(c) Government officers

Section F: Management skills in water projects

18. Indicate the level to which you agree with the following statements concerning how management skill influence performance of community initiated water projects **Key: SA-** Strongly Agree, **A-** Agree, **D-** Disagree, **SD-** Strongly Disagree

Management skills in water projects	SA	A	D	SD
a)Poor project planning and scheduling has led to incompleteness of community initiated projects				
b)Inadequate safety management skills have led to incompleteness of community initiated projects				
c)Long decision making process skills have led to incompleteness of community initiated projects				
d)Poor leadership skills have led to incompleteness of community initiated projects				

19. (A) Does water projects have rules for governing members?

Yes [] No []

(B) If yes do all members abide by rules and regulations?

Yes [] No []

(C) If yes in (20 A) who come up with rules and regulations

a. management committee members

b. projects members

c. experts

d. donors

e. I don't know

20. How often are elections carried out in community water projects?

a. Yearly ()

b. after 2 years ()

c. After three years ()

d. none of the above ()

21. Are all the positions in the committee up for elections?

a. Yes

b. No