

**INFLUENCE OF COMMUNITY INVOLVEMENT ON
IMPLEMENTATION OF CEREALS ENHANCEMENT PROGRAMME
IN MWINGI CENTRAL SUB-COUNTY KITUI COUNTY, KENYA.**

MARY MUENI KATUTO

**A Research Project Report Submitted in Partial Fulfillment of
The Requirement of the Award of Degree of Master of Arts in
Project Planning and Management of
The University of Nairobi**

2020

DECLARATION

This research project report is my original work and has not been presented for the award of any degree in any University.



31st August, 2020

Mary Mueni Katuto

Date

L50/69974/2013

This research project report has been submitted for examination with our approval as the University Supervisors.



31st August, 2020

Mumu Mueke

Date

Lecturer,

Department of Open Learning,

University of Nairobi.



31st August, 2020

Dr. Johnbosco Kisimbii

Date

Lecturer, Department of Open Learning,

University of Nairobi.

DEDICATION

This research project report is dedicated to my beloved husband Benard Mutua and our wonderful sons Joshua Mumo and Ephraim Muuo who supported and encouraged me to successfully pursue this study.

ACKNOWLEDGMENT

I exhort the Almighty God for graciously providing all resources needed to undertake this study well.

I greatly appreciate the University of Nairobi Administration for giving me a chance to undertake my Master Degree in the Institution. I am also thankful to my University Supervisors Mr. Mueke and Dr. Johnbosco Kisimbii for their valuable professional advice and support accorded throughout my research work.

Lastly, the great moral support and peer review received from my fellow students from Kitui Branch has been rewarding and is highly appreciated.

TABLE OF CONTENTS

	Page
DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGMENT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
ABBREVIATIONS AND ACRONYMS	x
ABSTRACT	xi
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background to the Study	1
1.2 Statement of the Problem	3
1.3 Purpose of the Study	5
1.4 Objectives of the Study	6
1.5 Research Questions	6
1.6 Hypothesis of the Study	6
1.7 Significance of the Study	7
1.8 Limitations of the Study	7
1.9 Delimitations of the Study	7
1.10 Assumptions of the Study	7
1.11 Operational Definitions of Significant Terms	8
1.12 Organization of the Study	9
CHAPTER TWO	10
LITERATURE REVIEW	10
2.1 Introduction	10
2.2 Participatory Project Identification and Project Implementation	10
2.3 Participatory Planning and Project Implementation	10
2.4 Participatory Leadership and Project Implementation	11
2.5 Participatory Project Monitoring and Evaluation and Project Implementation	13
2.6 Theoretical Framework	14
2.6.1 Theory of Change	14
2.6.2 Theory of Dialogue	14
2.6.3 Theory of Ladder of Citizen Participation	15
2.7 Conceptual Framework	17
2.8 Research Gaps	17
2.9 Summary of Literature Review	23
CHAPTER THREE	24
RESEARCH METHODOLOGY	24
3.1 Introduction	24
3.2 Research Design	24
3.3 Target Population	24
3.4 Sampling Procedure and Sample Size	24

3.4.1 Sampling Frame	25
3.5 Instruments For Data Collection	25
3.6 Pilot Testing of the Data Collection Instrument	25
3.6.1 Validity of Research Instrument	25
3.6.2 Reliability of Research Instrument.....	26
3.7 Data Collection Procedure	26
3.8 Data Analysis and Presentation	26
3.9 Ethical Considerations.....	27
CHAPTER FOUR	29
DATA ANALYSIS, PRESENTATION,INTERPRETATION AND DISCUSSION OF RESEARCH FINDINGS	29
4.1. Introduction	29
4.2 Response Rate.....	29
4.3 Reliability and Validity Test.....	30
4.4 General Characteristics of the Study Sample.....	30
4.4.1 Gender of Respondents	30
4.4.2 Age of Respondents	31
4.4.3 Education Level of Respondents.....	32
4.4.4 Years Lived in the Locality.....	32
4.4.5 Marital status of respondents.....	33
4.5 Descriptive Aanalysis.....	33
4.5.1 Participatory Project Identification.....	34
4.5.2 Participatory Project Planning	36
4.5.3 Participatory Project Leadership.....	37
4.5.4 Participatory Project Monitoring and Evaluation	38
4.6 Qualitative analysis	41
4.6.1 Participatory Project Identification.....	41
4.6.2 Participatory Project Planning	41
4.6.3 Participatory Project Leadership.....	42
4.6.4 Participatory Project Monitoring and Evaluation	42
4.7. Multicollinearity Test	43
4.8 Correlation Analysis	44
4.9 Regression Analysis Results	46
4.9.1 Moderating Effect of Government Policy	49
CHAPTER FIVE	53
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS	53
5.1 Introduction	53
5.2 Summary of Findings.....	53
5.2.1 Influence of Participatory Project Identification on Implementation of KCEP	53
5.2.2 Influence of Participatory Project Planning on Implementation of KCEP	54
5.2.3 Influence of Participatory Project Leadership on Implementation of KCEP	55
5.2.4 Influence of Participatory Project Monitoring and Evaluation on Implementation of KCEP.....	56
5.2.5 Moderating Effect of Government Policy on the Relationship between Community Involvement and Implementation of KCEP	58
5.3 Conclusion.....	58

5.4 Recommendations	60
5.4.1 Participatory Project Identification.....	60
5.4.2 Participatory Project Planning	61
5.4.3 Participatory Project Leadership.....	61
5.4.4 Participatory Monitoring and Evaluation.....	61
5.5 Suggestions for further study	62
REFERENCES.....	63
APPENDICES	67
Appendix 1: Letter of Transmittal.....	67
Appendix II: Questionnaire for the Farmers	68
Appendix III: Questionnaire for Community Committee Members	74
Appendix IV: Research Permit.....	81

LIST OF TABLES

Table 3. 1: Summary of Research Gaps.....	20
Table 3. 2: Sampling Frame.....	25
Table 3. 3: Operationalisation of Variables	28
Table 4. 1: Response Rate.....	29
Table 4. 2: Reliability test.....	30
Table 4. 3: Gender Distribution	31
Table 4. 4: Age of Respondents.....	31
Table 4. 5: Education level	32
Table 4. 6: Years lived in the locality	33
Table 4. 7: Marital Status of Respondents	33
Table 4. 8: Responses on the influence of participatory project identification on implementation of Cereals Enhancement Project	34
Table 4. 9: Responses on the influence of participatory project planning on implementation of Cereals Enhancement Project	36
Table 4. 10: Responses on the influence of participatory leadership on implementation of Cereals Enhancement Project	38
Table 4. 11: Responses on the influence of participatory monitoring and evaluation on implementation of Cereals Enhancement Project	39
Table 4. 12: Responses on Implementation of Kenya Cereals Enhancement Programme.....	41
Table 4. 13: Multicollinearity Statistics.....	43
Table 4. 14: Pearson Product-Moment Correlations Between Community Involvement and Implementation of Kenya Cereals Enhancement Programme	44
Table 4. 15: Model Summary	47
Table 4. 16: ANOVA	47
Table 4. 17: Regression coefficients	48
Table 4. 18: Summary Models Used to Test for the Moderating Effect.....	50
Table 4. 19: ANOVA for the Models Used to Test for the Moderating Effect	51
Table 4. 20: Coefficients for the Models Used to Test for Moderating Effect.....	52

LIST OF FIGURES

Figure 2. 1:Ladder of Citizen Participation	16
Figure 2. 2:Conceptual Framework	17

ABBREVIATIONS AND ACRONYMS

ASAL: Arid and Semi-Arid Lands

AUC: The African Union Commission

AWPB: Annual Work Plan and Budgets

CIDP: County Integrated Development Plan

ECA: The United Nations Economic Commission for Africa

FAO: Food and Agriculture Organization

HA: Hectare

IFAD: International Fund for Agriculture Development

KCEP: Kenya Cereals Enhancement Program

KDHS: Kenya Health Demographic Survey

KNBS: Kenya National Bureau of Statistics

PRA: participatory rural appraisal

SDG: Sustainable Development Goals

SME: Small Medium Enterprises

UNESCO: The UN Educational, Scientific and Cultural Organization

WFP: The World Food Program

WHO: The World Health Organization

ABSTRACT

The purpose of the study was investigating the influence of community involvement on the implementation of the Kitui Cereals Enhancement Project in Mwingi Central Sub County. The study had four objectives which included establishing the influence of participatory identification on implementation of KCEP project in Mwingi Central Sub County, secondly to determine how participatory planning influenced the implementation of KCEP project in Mwingi Central Sub County, thirdly to establish the extent to which participatory leadership influenced implementation of KCEP project in Mwingi Central Sub County and lastly to assess how participatory monitoring and evaluation influenced implementation of KCEP project in Mwingi Central Sub County. The study used a descriptive survey design targeting all the 1100 farmers directly benefiting from the KCEP project in Mwingi Central Sub County. The survey respondents were selected using a stratified random sampling technique. Data collection tools used for the study are standardized questionnaires. The questionnaire consisted of five-point Likert rating scales. Pilot testing of the research instruments was done in Kitui Central Sub County of Kitui County. The pilot testing exercise assisted to establish the reliability of the research instrument. The validity of the research instrument was determined by technical experts from the University of Nairobi. The collected data was analyzed using measures of central tendency and coefficient of variation to describe the variability of the statistics. The data was summarized in graphical representations. From the findings of the study, participatory project identification, participatory project planning, participatory leadership and participatory monitoring and evaluation were found to have a positive and significant linear influence on implementation of Kenya cereal enhancement programme. The study indicated that jointly, participatory project identification, participatory planning, participatory leadership and participatory monitoring & evaluation influence the implementation of Kenya cereals enhancement programme using a case of Mwingi central sub county in Kitui County. The findings indicate that 77% of change in KCEP implementation can be explained by four predictors including participatory project identification participatory planning, participatory leadership and participatory monitoring and evaluation implying that the remaining 23% of the variation in project implementation could be accounted for by other factors not considered in this study. Government policy was found to have a moderating effect on the relationship between community involvement and implementation of KCEP.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Food security exists where everybody have social, economic, and physical access to food that is nutritious, safe, and of right amount to meet all their nutrition requirements and preference at all times. (Kenya Food Security Steering Group, 2008). Globally, 820 million people are affected by hunger and poor nutrition while 2 billion are food insecure. This state underscores the big challenge in realizing the target SDG of ending hunger by 2030. Hunger is on an increasing trend in all sub-regions of Africa though slow in Western Asia and Latin America and with some improvements seen in Southern Asia (Food Agricultural Organization, 2019). Malnourished people work less, earn less, and become poorer and hungrier.

Efforts to address upsurge in hunger trends is complicated by increase in overweight and obesity seen in adults and school going children across all regions of the world. Globally Women are more susceptible to hunger compared to men with greatest gap seen in Latin America associated with women being economically and socially disadvantaged. Countries performing poorly economically especially middle-income countries which also rely on international primary commodity trade show increase in income inequality. The same is seen in countries experiencing rise in hunger making it difficult to increase food availability for the marginalized, poor and other disadvantaged population.

Asia has the highest number of population of about half a billion affected by hunger residing in southern Asian countries. The greatest population affected by malnutrition is found within Africa and Asia continents with rates of chronic malnutrition, wasting and overweight caused by intake of unhealthy diets (FAO, 2019)

Africa continent has been experiencing worsening trends in food insecurity from 2014 to 2018 which has slowed down in 2019 where 256 million people are undernourished. Out of this population, 17 million are in Northern Africa while the other 239 million are in sub-Saharan Africa with the largest number living in Eastern Africa. The drivers of poor food security have been said to be climate shocks, conflict, and economic slowdown and downturns. The drivers either overlap or exist either in isolation. Adverse Climate Change has been indicated to affect Kenya, Malawi, Ethiopia, Uganda, Zambia, Mozambique, and Madagascar. Conflicts coupled with adverse climate

change affect Lake Chad Basin while Economic shocks have affected Burundi, Zimbabwe, and Sudan (FAO, ECA, and AUC.2020).

Largely, the food insecurity situation in Kenya is severe as denoted by a high proportion of her population with no access to food inadequate quality, and amounts. Over 10 million Kenyans experience food insecurity majorly relying on relief food especially in the dry regions. Annually , over 2 million Kenyans receive food aid either from the government UN Agencies or Development Partners. Periodically cases of food insecurity are experienced in areas prone to flooding including some parts of Busia and Nyanza County.

Kitui County experiences perennial food insecurity and consequent high rates of chronic malnutrition of 46% against a national average of 26% (KDHS, 2015) among children aged <5 years. Climatic conditions of all the sub-counties are characterized by low rainfall which is both poorly distributed and unreliable in both short and long rain seasons except some pockets of Yatta, Mutitu, Matinyani, Mbitini, Kitui Central, Mui, Muumoni and Migwani which serve as a food basket for Kitui County.

The residents of Mwingi Central Sub County suffer from food insecurity in equal measure with Kitui County. Mwingi Sub County has been experiencing climate change in the form of drought which adversely affected food availability, accessibility, utilization, and stability (NDMA, 2014). Rain fed farming and livestock production being the main economic activity of the Mwingi residents; they are highly susceptible to adverse climate change which exposes them to frequent food insecurity. The area has been on food aid since 2004 with the number of beneficiaries adjusted according to food assessment reports done at the end of both short and long spots of rain (KFSSG, 2015). Agriculture is the main economic activity of Mwingi Central residents with most farmers growing mixture of pulses and cereal crops and livestock keeping. The food produced is mainly consumed at households with surplus sold to the locals and outside traders.

The County in partnership with WFP, FAO, and IFAD is implementing KCEP. KCEP is a seven-year program targeting 100,000 small-scale farmers in 44 sub-counties in the following counties Western; Bungoma, Kakamega, Nakuru, Nandi & Trans Nzoia, Eastern; Embu, Machakos, Kitui, Tharaka Nithi, Makueni, and Coastal; Kilifi, Taita Taveta and Kwale. In Kitui County, the project is covering 6 out of 8 sub-counties which include Mwingi Central, Mwingi North, Mwingi West, Kitui Rural, Kitui East, and Kitui South. The project activities were initiated at the different timeline with Mwingi North and Mwingi Central starting in 2016 while in the other four sub-

counties it started in 2018. In Mwingi Central Sub County the project covers all the six wards including Nuu, Nguni, Mui, Kivou, Waita, and Mwingi Central. The program's main developmental goal is to reduce poverty rates among the rural population and reduce food insecurity in small scale farming in ASAL in Kenya. The goal is realized through maximizing the economic potential of the value chain of selected crops including maize, sorghum, millet, and pulses while enhancing capacity to manage naturally occurring resources and resilience to changing climatic conditions. In pursuant to the broad goal, the program has two specific objectives. First, small-scale farmers graduate to commercially oriented entities who have adopted climate-resilient agricultural practices. Second, county government officers and communities are empowered to manage their natural resources and build resilience to climate change in a sustainable manner.

In pursuant of KCEP's goal of contributing to improved food security and reduced poverty, involvement of the local community is strongly embraced. For instance, community involvement is done at a sub-county level where communities are engaged in planning for community investments and selection of eligible farmer groups for the project. The sub-county plans are used in the development of annual work plans and budget for county government and support partners. The AWPB will also include KCEP supported activities. It is anticipated that the program planning process adopts a bottom-up approach.

1.2 Statement of the Problem

Agricultural activities that benefit rural poor present a great opportunity to reduce poverty in a sustainable manner. Agricultural ventures are important economic activities in Kenya which contributes to 26% of the GDP directly and another 27% of GDP through linkage to other sectors. Agriculture provides livelihoods for over 80% of the population through the creation of employment, income, and food security (FAO, 2014). Agriculture is the main driver of non-agriculture operations including social services, education, transport, construction thus when the sector performs well all other sectors flourish while the opposite is true. Farming and livestock production is widely done across the country. However, due to high population density in areas with relatively high rainfall and fertile soils, most of the Agriculture production opportunities are found in the ASAL (IFAD,2016).

In strengthening food and security the Government of Kenya under the leadership of the current president initiated four development agendas expected to make a positive milestone towards achieving Sustainable Development goals earmarked for implementation from 2017 to 2022. They include manufacturing and improved housing, health access, access to education and food and nutrition security. Following devolvement of most ministries to County Governments the operationalized of this development agenda is done at County level where each County set priorities according to needs, resources and opportunities available to them.

The residents of Kitui County practice rain-fed farming and livestock production which is susceptible to adverse climate change shocks. Available literature shows that Kitui County has one of the highest absolute poverty of 47.5 % against a national average of 36.1% translating to the County being home to about 522,000 of the poor people in Kenya. In terms of food poverty, the County experiences 39.4% negatively contributing to the national average of 32.0%. (Kitui County Annual Development Plan, 2019/2020).

In rural areas where poverty rate is high the role of Agriculture as poverty alleviation venture cannot be ignored. Investment done to strengthen and improve the performance of the sector and involvement of the poor and the vulnerable has great potential in the attainment of growth of the local economy. Women and the youth contribute over 70% of agriculture labor and thus engaging them in agriculture development activities enhances ownership that is important in attaining sustainable livelihoods. Development interventions that embrace bottom-up management style are successful in realizing set goals, objectives while creating the local capacity to manage and mobilize for resources to undertake development work beyond project life span. Farmers based groups and cooperatives' performance is on the decline due to constraints faced from poor governance and management, inadequate access to information, and inadequate value addition of their produce, this is adversely affecting food security (IFAD, 2012).

Kitui County government in collaboration with development partners is putting various measures to alleviate poverty in the rural poor. KCEP program is a key project implemented in the County whose overall mandate is to contribute to reduced poverty while increasing food availability small scale crop producers in 'ASAL' of Kenya. This is being realized through investing in the value chain of commonly produced and consumed crops including maize, sorghum, millet, cowpeas, and green grams. The programme is supporting small scale farmers to adopt good agricultural practices

and conservation agriculture to ensure that environmental degradation does not occur. To efficiently and effectively achieve her goals, it is expected that the program embraces a community involvement throughout the project life cycle. In the recent past emergence of alternative people-centered development theories which emphasize the participation of people in projects regardless of ethnicity, race, and gender. It is opined that such participation increases capacity of both individual participants and institution managers to mobilize and manage local resources leading to self-reliance and sustainable development (Abiche, 2004). On the other hand, community involvement can be an uphill task if not objectively handled. The participatory community approach is said to be almost the only ethical way to manage a community intervention.

In a bid to enhance the performance of food security interventions in Kitui County, several kinds of research have been done through the support of development partners implementing food security activities in the County and institutions of higher learning to inform decision making and programming of similar interventions. Mbuthia, K.W, Kioli, F.N & Wanjala K.B (2017) did a investigated household food security environmental determinants in kyangwithya west location in Kitui county whose findings indicate that adverse weather changes including high temperatures, low rainfall, and frequent drought affect food security. The same team did another research at the same location on household food security economic determinants whose findings pin pointed that source of income and farm size influence household food security. Mbindyo M (2013) did research on the influence of relief food on food security in the Nguni Division in Mwingi Central Sub County whose findings indicate that there was a gap between what the relief food provided and the food requirements at the household level. The research gaps indicate that economic and environmental factors have to be addressed in order to attain success in food security activities. Lack of engaging community members meant to benefit from the project interventions in key decision making contributed to poor performance of the project. Current research on influence of community involvement on implementation of KCEP in Mwingi Central Sub County filled an existing gap in the literature demonstrating how the involvement of the local community affects the implementation of food security interventions.

1.3 Purpose of the Study

This study sought to assess influence of community involvement in implementation of KCEP in Mwingi Central Sub County in Kitui County

1.4 Objectives of the Study

The study objectives were as follows:

- i) To determine how participatory project identification influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County.
- ii) To explore how participatory planning influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County.
- iii) To assess how participatory leadership influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County.
- iv) To investigate how participatory monitoring and evaluation influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County.

1.5 Research Questions

To adequately meet the objectives of the study, the following questions will be answered:-

- i) To what level does participatory project identification influence implementation of Cereals Enhancement Project in Mwingi Central Sub County?
- ii) To what level does participatory planning influence implementation of Cereals Enhancement Project in Mwingi Central Sub County?
- iii) To what level does participatory leadership influence implementation of Cereals Enhancement Project in Mwingi Central Sub County?
- iv) To what level does participatory monitoring and evaluation influence implementation of Cereals Enhancement Project in Mwingi Central Sub County?

1.6 Hypothesis of the Study

H_0 : 'There is no significant relationship between participatory project identification and implementation of Cereals Enhancement Project.'

H_0 : 'There is no significant relationship between participatory planning and implementation of Cereals Enhancement Project.'

H_0 : 'There is no significant relationship between participatory leadership and the implementation of Cereals Enhancement Project.'

H_0 : 'There is no significant relationship between participatory monitoring and evaluation and implementation of Cereals Enhancement Project.'

1.7 Significance of the Study

Findings generated through the study are resourceful to entities with plans to invest in community projects. The national government can gain important information to guide in formulation of policies on community engagement in Agriculture sectors. KCEP project management can utilize the findings informing scaling up of best practices and find solutions to identified barriers to hasten achieving of set project activities, objectives and goals . The findings can serve as reference material in academic studies of Scholars and in the field of managing projects.

1.8 Limitations of the Study

This research sought to find out whether community involvement influences implementation of Cereals Enhancement Project in Mwingi Central Sub County. The research was open to the possibility of getting semi-illiterate respondents who could face difficulty in grasping some questions in the study instrument while others could be untruthful in their response. However, this challenge was addressed by ensuring confidentiality and anonymity are observed during data collection. To ensure that the respondents understood the study questions, research questions are presented in simple language and verbal translation was done by the researcher or research assistant in the course collecting data from the field.

1.9 Delimitations of the Study

Scope of current research was limited to crop producers benefiting from the Kenya Cereals Enhancement Project in Mwingi Central Sub County of Kitui County. The study respondents were farmers either as ordinal members or members of the community management committee from across the six wards of Mwingi Central Sub County. Any additional information was gotten from the literature review. Research findings were extrapolated with careful consideration of unique characteristics of Mwingi Central Sub County. It was also extrapolated to other parts of Kenya as long as there was a similarity in characteristics with those of Mwingi Central Sub County.

1.10 Assumptions of the Study

This research expected that the community cooperated with KCEP project management team to embrace climate-resilient agriculture in enhancing cereals production. Mwingi Central Sub County has not been spared by adverse climate change in form of frequent droughts and reduced amount of rainfall which calls for change among community members in adopting farming methods and techniques that require minimal water and minimal ground tilling. It is expected that the community is planting more of fast maturing crops that are not susceptible to common crop

diseases. Such crops include sorghum, millet, cowpeas, green grams and some bean varieties. This means that the implementation of KCEP has been influenced by community involvement to a certain degree. Respondents were also expected to have an equal understanding of KCEP operations and provided honest feedback without bias.

1.11 Operational Definitions of Significant Terms

Agriculture: Occupation that involves raising crops through the cultivation of land and or livestock breeding.

Community Involvement: is a situation where people or local community meant benefit from a project is engaged in the project activities from the start to close of its operations.

Development Partners: Non-Governmental Organizations supporting development projects and activities.

UN Agencies: Autonomous agencies mandated to guide in policy formulations, standards, provide technical assistance support, and other required support in social and economic fronts they include though not limited to FAO, WFP, WHO, IFAD, UNESCO

Climate: Are general or prevailing weather conditions including precipitation, wind, sunshine, humidity, cloudiness, temperature, wind, and air pressure of a place observed over a year then averaged for about 30 years and above.

Food Security: Scenario where everybody has food of adequate quality to meet nutritional requirements at the family level.

Food Insecurity: Scenario where people lack adequate food according to what is preferred by their culture and individual nutrient requirements.

Hectare: a metric unit of square measure that is equal to a square of 100 meters per side

Homogenous: Similar climatic traits

Leadership: Denotes capability to appeal and align followers towards a certain purpose, goal or objectives

Monitoring and Evaluation: is a quality control tool done to assess whether a program is achieving set goals, objectives and outcomes

Participatory Approach: also known as people-centered development is engaging all players whose life is influenced by a project in its operationalization.

Planning: is setting up the procedure to be followed so as to attain certain goals and objectives within a specified timeframe and resources.

Project: is a temporary venture with defined timeframe, resources and is meant to achieve set goals and objectives in a specified place.

Resilient: is the ability to withstand and recover from shock without getting permanent damage, for instance, farmers' ability to recover from failed rains and crop failure without suffering from adverse effects like starvation and death

Small-scale farmers: is where farmers practice alternative farming appreciating that resources are limited and the environment is fragile

Smallholder farmers: these are small scale farmers managing areas of less than one hectare to 10 hectares

1.12 Organization of the Study

This research work is logically arranged in five chapters including chapter one which contains an introduction to the study with the following subheadings; background to study, statement of the problem, study purpose, the objective of the study, research questions, hypothesis of the study, the significance of the study, limitations, delimitations, assumptions of study and definitions of significant terms. Chapter two entails reviewing the literature on earlier work done on this study which has these subheadings; introduction to chapter content, literature review presented as per study objectives, theoretical framework, conceptual framework, research gaps, and summary of reviewed literature.

The third chapter constitute the methodology encompassing “introduction, research design, target population, sampling procedures and sample size, research instruments, pilot testing of the instruments, the validity of the research instruments, reliability of research instrument, data collection procedure, data analysis, ethical considerations and operationalization of variables.” Chapter four consists of the analysis of the study finding, presentation and discussion while the last chapter summarizes the findings, provide conclusion in addition to the resulting recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Second chapter of this research work presents detailed information gathered through reviewing of earlier literature focusing on community involvement in food security projects. The chapter consists of theories supporting the research which include theory of change, theory of community dialogue and theory of ladder of citizen participation, conceptual framework, gaps identified in course of research and literature review summary

2.2 Participatory Project Identification and Project Implementation

Project identification phase is mainly characterized by identifying project needs and objectives. During the phase needs assessment is done including the generation of possible solutions to the identified needs. Prioritization of best interventions is done in this stage followed by the project proposal. It is presumed that local residents of an area understand their problems well and thus are fundamental in coming up with sustainable solutions to them. They participate in generating project ideas, kind of project, and feasibility studies.

Involving local residents in identifying project interventions ensures that interventions are meeting community needs. The technical team working in the project should avoid imposing preconceived ideologies at this infancy stage since it can discourage the locals from participating in the latter steps of the project (Jacob, 2011). Jacob proposes projects implemented at the community level fail when members are not engaged during this first phase.

Ehigiator (2013) investigated how organizations based at community level responded to challenges facility communities. These research findings proposed that engaging members of the community in project management a useful approach that leads to sustainable solutions in slum dwellings. According to Ehigiator, this first phase helps in coming up with interventions that meet the needs of a community member. Involving the community at this stage and the project proposal development cannot be overstated.

2.3 Participatory Planning and Project Implementation

At this stage, solution to be realized through the project is further developed where identification of project goals plans for resources, and formulation of the work plan is done. In participatory project planning, stakeholders are engaged to develop the project plans. Stakeholder engagement

in planning contributes to shared decision-making, consultation, and plan on resources needed for success of the project.

Maraga et al, (2011) researched on how communities were engaged in afforestation project in the planning phase. They used a descriptive survey design and collected data through focused group discussions, standardized questionnaires, and key informant interviews. Using systematic sampling method survey subjects were identified. The research findings indicated members of that community members participated in the project planning with 54% indicating that they attended community planning meetings. Contrary to reviewed literature indicating large proportion of stakeholders participated project planning, majority were not aware of the timing and location of those planning meetings.

According to Barasa and Jelagat (2013) engagement of stakeholders in planning for projects is an important avenue to promote grassroots development. Involving community members in project planning has been seen to contribute to sustainable development. Stakeholder engagement provides an avenue to enhance transparency, responsible use of resources, and proper distribution of resources as per needs. It also gives opportunity to all stakeholders to choose what works best for them. Actively engaging community members in planning contributes to better performance in planning completion while fostering ownership and better management actions.

2.4 Participatory Leadership and Project Implementation

Leadership has been cited as elusive due to the fact that no agreement has been arrived at among researchers on its meaning. According to Woods (2007) existence of an argument on defining the term 'leadership for several centuries' clearly indicates that the term cannot be easily defined. Despite the controversy surrounding the definition of the term leadership, its role in an organization cannot be ignored in contributing to an organization's goals and objectives. Grojean, Resick, Dickson & Smith, and (2004) .Until the 20th century is when scientific study of leadership became popular mainly focusing on leadership effectiveness. (Weinberger, 2009).

Leadership entails making decision which directly affects implementation of a project and more so the project beneficiaries. Vulnerable communities are often suspicious of outsiders due to bad experiences of unfulfilled promises to better their infrastructure or much required fundamental service. Lot of efforts put in engaging communities directly by project external technical team through public call for meetings without putting up community channels and intermediaries is a

hindrance to community mobilization which can adversely affect the performance of a project. In order to attain effective and efficient community channels the community members affected by a project must participate in the process. Such community channels involve putting in place a local committee selected by the larger community members through a standard selection criteria which provides for transparency and inclusivity of vulnerable groups including the youth and senior citizens. Upon selection, community leaders need to be introduced to the project, since they are expected to provide feedback on the most effective ways of engaging the larger community and assist with coordination of project meetings. Project technical team should provide training to enhance the knowledge and skills of the committee members. The committee members are critical in planning, formulation and execution of projects. In enhancing their capacity the community committee members are strategically placed on the steering wheel of the project (Elsevier, B.V, 2017)

Involving the community in decision making enhances buy ins, fosters ownership, provides wide scope of ideas, cultivates sense of responsibility and active participation as the members feel obliged to deliver on the project goals and objectives. The approach helps in anticipating potential emerging issues before hand and come up with mitigation measures which could otherwise derail or lead to loss of project resources when not properly handled. It also presents an opportunity for the community members to exhibit their leadership and other technical skills as they provide guidance to fellow community members thus uplifting their morale, creating trusted relationship and fostering a sense of organization identity. To successfully involve community members in decision making the project technical team must allocate adequate time and resources to enhance the capacity of the community selected committee members to comprehend and effectively communicate the same to other community members. Corey, S.H (2016)

Martikainen M,(2015) researched on how leadership at community level influenced operationalization of grassroots innovations for energy source at Hyde Farms and Lyndhurst in United Kingdom. The investigation looked at how key elements of leadership at the community level manifested in a niche innovation nurturing process. The research findings added to the previous knowledge on energy at the community level and innovations at the grassroots by showing that leadership at the community level contribute to better development. Leadership at the community level plays a major role during project team engagement with stakeholders, seeking

resource funding, and learning new skills. Also, the findings indicated that community leaders were able to recognize other's useful skills and utilize those in the project. Additionally, community leaders applied existing knowledge in pinpointing people's expectations, networking and learning, and practical application of management skills.

2.5 Participatory Project Monitoring and Evaluation and Project Implementation

Monitoring denotes evaluation carried out continuously throughout the project life cycle. The key aim of monitoring is to improve project design and implementation. Evaluation is an organized process involving data collection, recording, and organization of information concerned with project outcomes including project deliverables and impacts. Monitoring and evaluation is a critical process in implementation of project since it provides a sense of direction in achieving project set goals and objectives. Engaging the community in monitoring and evaluation denotes that local community serves as source of information in the monitoring and evaluation process and is given opportune to propose interventions which they think can work to resolve a challenge.

Thuo (2010) did a study on the level of beneficiaries' involvement in Kenya's agriculture productivity project. He adopted descriptive survey design and selected survey subjects through stratified random sampling method. Collection of data was done using questionnaires and KI. The research report pointed to high proportion of beneficiary participation in monitoring and evaluation of the project. This empowered the community members while enhancing ownership of the projects. In the monitoring and evaluation process, beneficiaries helped the technical team identify failures in the project implementation.

Maraga et., al(2011) did a research study on participation of community participation in the project life cycle of projects on afforestation projects within the river Nyando basin in Kenya. The descriptive research design was used with a standardized questionnaire, focused discussions, and key informant interviews data collection tools being utilized. The first household was selected out of the first five. The study findings established that the participation of community members was low in monitoring and evaluation of the project. Some respondents indicated total ignorance of any existence of monitoring and evaluation in community projects. Similarly, many of them did not access the project monitoring and evaluation reports.

Meri (2013) conducted a research study on main elements contributing to effective monitoring and evaluation. It adopted a descriptive research design. Standardized questionnaires were used for the

data collection tool used with a simple random sampling method adopted to select survey subjects. The studies established that participation of community participation enhances transparency and accountability which are useful in making monitoring and evaluation effective. The researchers recommend that involving stakeholders to be embraced in development projects.

2.6 Theoretical Framework

The researcher is using three theories that provide some premises on how community involvement may affect implementation of KCEP Mwingi Central Sub County in Kitui County.

2.6.1 Theory of Change

The first theory that guided the research is theory of change which was proposed by Kurt Lewin. This theory has three stages including the un-freeze, the change (movement), and refreezing. Lewin argues any individual behaviors in response to change occur as a result of the influence of group behavior. Theory of change is suited to the area of research since KCEP project is expected to cause positive change among its beneficiaries in Mwingi Central Sub County. Project beneficiaries benefited by getting standard farm inputs and training in good agriculture practices which led to better farm yields and better rewards when they sell their produce in an organized way as opposed to earlier practice of selling their produce at low prices at individual level.

2.6.2 Theory of Dialogue

Theory coined by Paulo Frere (Freire, 1921-1997) proposes that actively engaging people in a way that they are free to provide their thoughts enhances better grasping of ideas as opposed to banking education since it challenges past held thoughts through critical thinking. According to (Gadamer, 1997) dialogue denotes an enriching, disruptive encounter, responsive and contact conversation, and shared useful process of building meaning, creation of action, and understanding within groups of people. The actors in such dialogue can include members of special groups of people and community-based organizations. Breakthroughs in project implementations are attained whenever members of community and project leaders practice dialogue. Social realities are effectively criticized and brought through dialogue by people directly affected by them. (Rugut and Osman, 2013). This theory is relevant because it provides some dynamics on how KCEP provided an opportunity to the project beneficiaries to engage through dialogue probably during community meetings, group meetings, training sessions or monitoring of the project.

2.6.3 Theory of Ladder of Citizen Participation

Theory developed by Sherry R Arnstein in 1969 opined that the participation of citizens provides an opportunity for stakeholders to contribute to decisions of issues affecting them. The participation of citizens enhances the success of projects while influencing policies and democracy. The theory gives an illustration of how citizens participate through the contribution of ideas while getting information from the project technical team in the project implementation process. The eight-step ladder is categorized into three phases with varying degrees of members of contributing to decision making. At the base of the ladder are manipulation, therapy, and informing which is not participatory. Tokenism forms second phase with consultation and placation on issues affecting the community but the final decision is still done by the project management team. The highest phase of the ladder is citizen control with a partnership, delegation, and citizen control taking place. At this phase community members make decisions on project resource prioritization, which should benefit and have the capacity to mobilize for resources for development projects. This theory is relevant in this research where KCEP beneficiaries decision making power started at the basic level and has grown over time as the project team build their capacity while delegating more decision making power to them by the technical team. Involvement of community members in decision making grants them power to take control of the project operations and is highly linked to success and sustainability of projects.

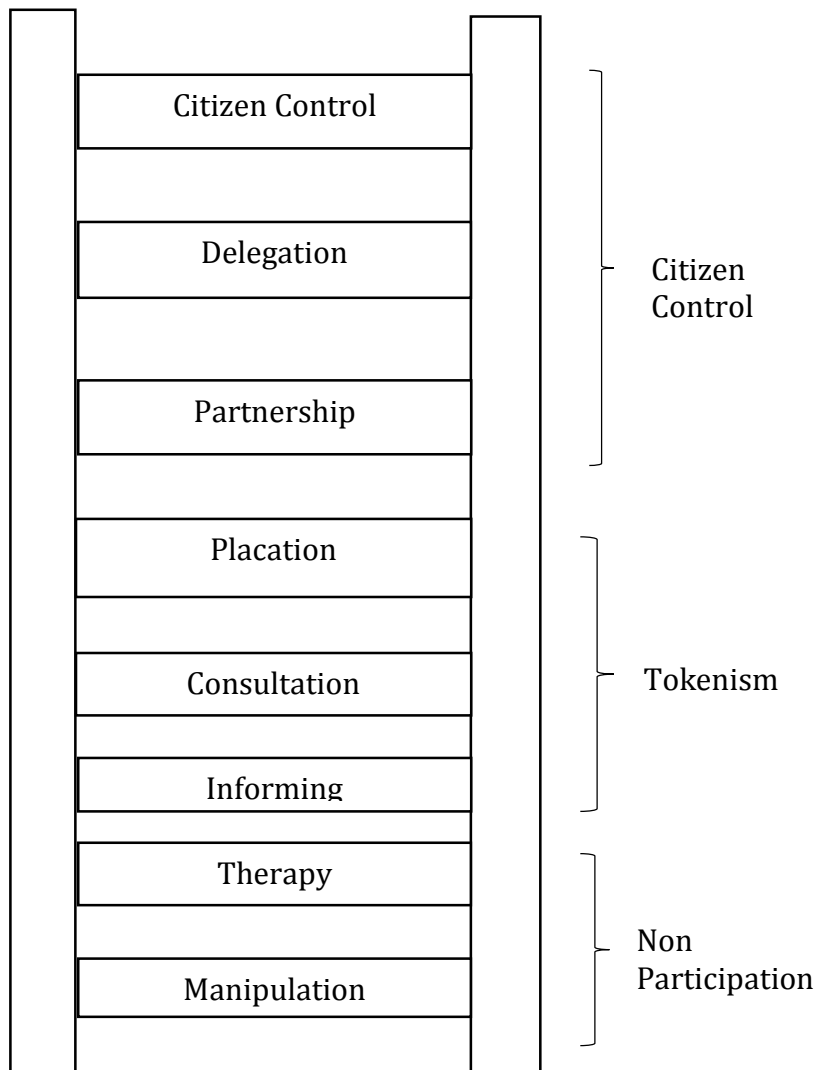


Figure 2. 1: Ladder of Citizen Participation

Source: (Sherry Arnstein, 1969)

2.7 Conceptual Framework

Independent Variables

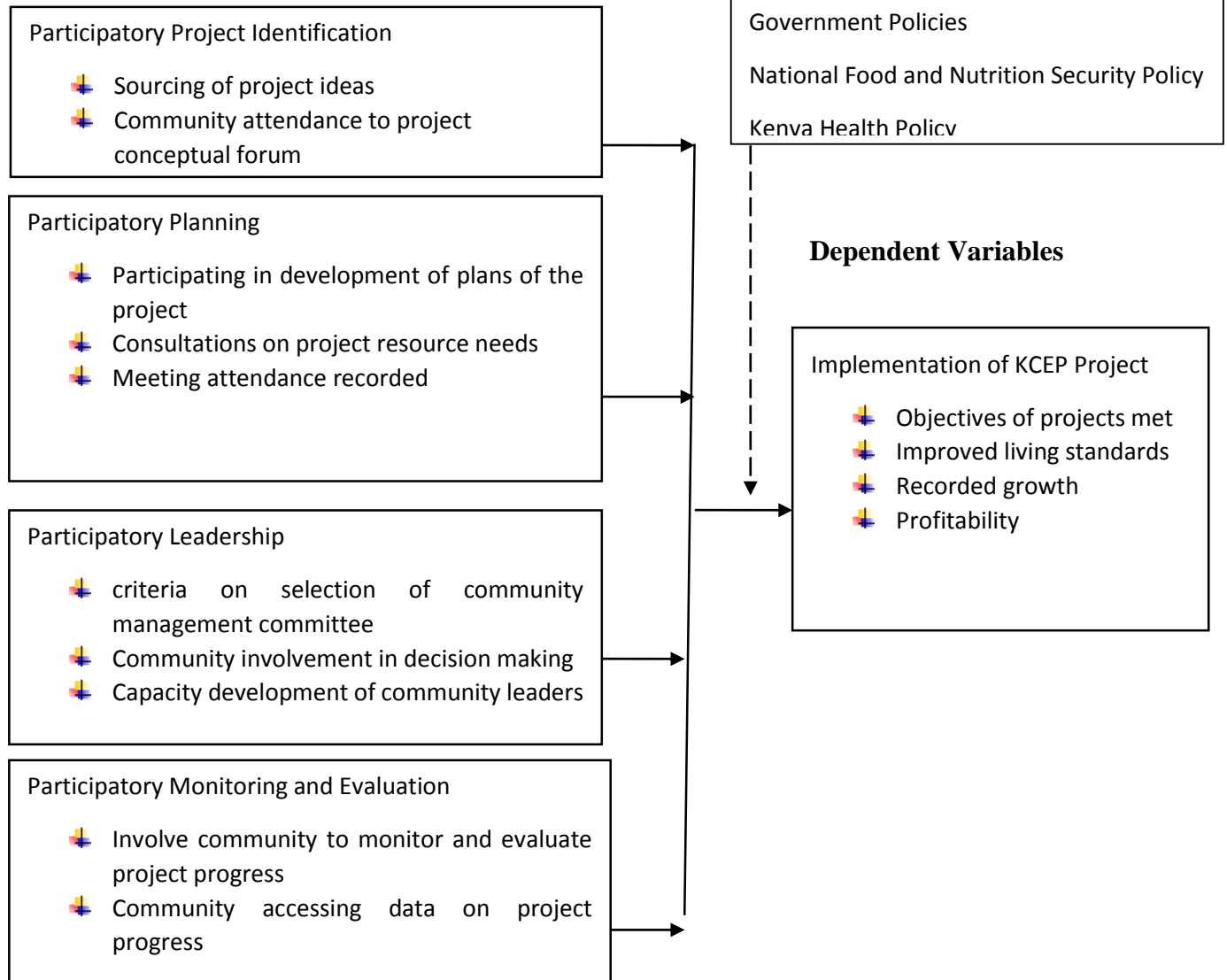


Figure 2. 2: Conceptual Framework

2.8 Research Gaps

A look at theoretical literature point that involving of community members throughout the life of a project contributes to success of such project. The need to involve beneficiaries of a project in all operations of the project from start to the close out has been over emphasized. However, some reviewed empirical literature indicates that several community members were not actively

involved in all phase of project either out of default or chance and this negatively affected the success of projects, it hindered the empowerment of stakeholders and the sustainability of realized gains once donor support ends.

Research gaps exist in demonstrating how government-led projects can involve the stakeholders in developing interventions to enhance project success, empower the community, and realize sustainability beyond their support. This study aimed to fill the gap in academic literature through establishing the contribution of community involvement to poverty reduction through improved food security in Mwingi Central Sub County. In course of analyzing data collected in this research existing gaps, emerging issues have been discovered and recommendations for improvement suggested.

Table 3. 1: Summary of Research Gaps

Author/Date	Title	Research Design	Context/Setting	Findings	Research Gaps
Maraga et, 2011	‘Factors determining Community participation in afforestation projects.’	Descriptive study design	Nyando Basin, Kenya	<ul style="list-style-type: none"> • Participation and benefits gained from the project strongly related 	Research was done elsewhere not in Kitui County
Martikainen M, 2015	‘The function of community leadership in developing innovative energy at grassroots’	Mixed research methods	United Kingdom	<ul style="list-style-type: none"> • Community leadership positively contribute to better development 	Researcher used mixed research methods in his study
Njeru K Karimi, 2018	‘Participatory project management and success of upgrading slum projects’	Descriptive study design	Korogocho slums in Nairobi County, Kenya	<ul style="list-style-type: none"> • Community members participated in project conceptual forums, feasibility study, and needs assessment. • Community members got 	Research was done elsewhere not in Kitui County

				<p>project progress updates and participated in dispute resolutions.</p> <ul style="list-style-type: none"> • The success of the slum upgrading project has enhanced through community participation 	
Kezia et,2017	‘Environmental determinants to household food security’	Cross-sectional study	Kyangwithya West Location, Kitui County in Kenya	<ul style="list-style-type: none"> • Adverse weather changes contribute to reduced food security 	Researcher used a different research design
Kezia et,2017	‘Economic factors influencing household food security’	Cross-sectional study	Kyangwithya West Location, Kitui County in Kenya	<ul style="list-style-type: none"> • Farm size and source of income directly influence food security 	Researcher used a different research design

Mbindyo D. M, 2013	'Influence of food relief on food security'	Cross-sectional study	Nguni Division, Mwingi Central, Kenya	<ul style="list-style-type: none"> Relief food does not adequately provide required food at the household level 	Research was done within one division of Mwingi Central Sub County
Mutembei et, 2015	'Restoring community livelihoods and food security through livestock asset during drought disaster'	Cross-sectional study	Mwingi Central Sub County in Kenya	<ul style="list-style-type: none"> Well executed mitigation measures to reduce the loss of animal contributes to self-reliance and improved food security 	Research used a different research design.

2.9 Summary of Literature Review

Reviewed theoretical literature opine that community involvement in project implementation fosters ownership, credibility creates an opportunity for wider scope by catering for various interest groups, for instance, the marginalized voices of youth, people living with disability and other special groups. Involving stakeholders in all the key phases of the project cycle ensures continued capacity development both for the beneficiaries and local institutions to manage and mobilize resources for meaningful development. As much as community participatory approach is believed to be an effective approach to sustainable development it can be a difficult task to fulfill if no deliberate efforts and resources are allocated to operationalize it within the project life cycle.

Additionally, there is a need for more published literature on how engaging project beneficiaries in operationalization of poverty reduction and food security projects affect project performance. Such literature will guide the concerned stakeholders not only in developing project proposals but also in the operationalization of the project.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Chapter three provides a detailed research methodology adopted by the research in accomplishing her study project work. Key topics include project research design, population targeted for study , procedures used in sampling study respondents, procedures, study sample, sampling frame, research study instruments, methods of testing how research tools are reliable and valid, procedure used in collecting research data, technique used to analyze data and ethical considerations.

3.2 Research Design

Research design provides a procedure adopted by researcher to accurately, validly, economically, and objectively get answers to research questions. It outlines how the selection of the survey sample is done, data is collected and analysis of results of interest and testing hypothesis is completed (Thyer, 1993).

This study used descriptive survey design a procedure which seeks to understand the prevailing situation in view of practices, processes, belief, trends, relationships, and conditions. Descriptive research is gathering information about prevailing situations and conditions for the purpose of describing and interpreting them (Aggarwal, 2008). On top of gathering data and tabulating the facts, it involves analyzing, interpreting, comparing, and establishing relationships and trends. Additionally, it includes scientific method application in analyzing and critically cross-checking data source materials, interpretation of data, and coining of predictions and generalization.

3.3 Target Population

This study targeted all 1,100 farmers benefiting from KCEP in Kivou, Waita, Nguni, Nuu, Mwingi Central and Mui Wards of Mwingi Central Sub County where KCEP project is implemented. Of great interest were those that had benefited from the KCEP project for over 3 years which is sufficient time for meaningful experience gained through the project.

3.4 Sampling Procedure and Sample Size

Selection of survey respondents was done using stratified simple random sampling A sample size of 110 farmers out of 1100 was selected to provide response to the survey. Mugenda and Mugenda, (2013) opines that for a survey population below 10,000 subjects, 10% to 30% of population sampled for study response is acceptable.10% of the target population is adequate for credible analysis. Each of the 46 farmers groups consists of 3 officials with an average membership of 24

individuals. This means that the ratio of group officials to the ordinary members is 1:8. Through stratified random sampling, 108 respondents consisting 14 officials and 94 ordinary farmers were identified to take up the study questionnaires.

3.4.1 Sampling Frame

The sampling frame is the full list of research subjects where the sample is drawn from.

Table 3. 2: Sampling Frame

S/No	Population Category	Target Population	Sample Percentage
1	Community members	962	96
2	Group Officials	138	14
	Total	1100	110

3.5 Instruments For Data Collection

Structured open-ended and closed standard questionnaire was administered to all the survey respondents. The 34 items are divided into four sessions representing the four research questions in this study.

3.6 Pilot Testing of the Data Collection Instrument

The researcher undertook a pilot study to ascertain capability of tools collecting data to generate adequate data that satisfactorily answered queries in the study. Pilot study preceded main study data collection and helped in correcting any gaps with the instrument or any other elements in the technique used in collecting information. Pilot study for this research was done among KCEP beneficiaries not participating in actual study.

3.6.1 Validity of Research Instrument

The validity of instrument of research denotes the degree at which study research reflects concepts, variables, and existing theories in a study. (Streiner and Norman (1996). It also denotes the ability of the research instruments to produce results similar to actual characteristic of subjects of the research. Research instrument was submitted to immediate supervisor, fellow students, and lecturers from the University of Nairobi to review and provide inputs on the content to be measured.

3.6.2 Reliability of Research Instrument

Best and Khan, (2001) described reliability of instruments of research to be the extent to which the research instrument is consistent. One of the ways of establishing reliability of instruments of research is through administering research tool in a pilot test using split-half method. However due to some limitations in the split-half method, this researcher is applying Cronbach's alpha to ascertain internal consistency of research results of all items in a test. Cronbach's alpha denotes mean of all available split-half coefficients. Cronbach's alpha gives a score of 0-1 where a range of 0.7 to 0.9 is accepted while a score of below 0.6 indicating problematic reliability of the instruments. Formula applied is as below

$$\alpha = \frac{N \cdot \bar{C}}{\bar{v}(N - 1) \cdot \bar{C}}$$

N = the number of items

\bar{C} = average covariance between pair of items

\bar{v} = average variance

3.7 Data Collection Procedure

A detailed list of KCEP group member's details was obtained from Sub County Agriculture Office for sampling purposes. Using the full list she sampled 110 beneficiaries consisting of 96 farmers and 14 group committee members who participated in the survey. The researcher was given details of the Ward Agriculture Extension Officer of the selected groups with whom they developed a movement plan to the farmers. Guided by the movement plan, the researcher assisted by a research assistant, visited the farmers for questionnaire administration.

3.8 Data Analysis and Presentation

Research adopted average, mean and coefficient of variation in analyzing data that she gathered in her study for ease of interpretation and presentation. She presented her data using simple frequency tables. Additionally, she applied correlation coefficient to establish any relation between variables and multiple linear regressions in investigating any existing relation between independent variables and dependent variable. This model is relevant since there are four independent variables against a single variable which is dependent on them. The formula used is as follow

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \dots\dots\dots (1)$$

Where

y = Implementation of Kenya Cereals Enhancement Project

β_0 = Constant

x_1 = 'Participatory Project Identification'

x_2 = 'Participatory Project Planning'

x_3 = 'Participatory Project Leadership'

x_4 = 'Participatory Project Monitoring & Evaluation'

ε = An error term

MMR to determine the moderating variable (Government Policy)

$$Y = \beta_0 + \beta_1 X + \beta_2 Z + \varepsilon \dots\dots\dots (2)$$

Where

β_0 = Y intercept

β_1 = 'the estimate of the population regression coefficient for X'

β_2 = 'the estimate of the population regression coefficient for Z'

X= 'Community Involvement'

Z= 'Government Policy'

Y= Implementation of Kenya Cereals Enhancement Project

ε = a residual term.

3.9 Ethical Considerations

A research authorization letter was obtained from the university to allow researcher proceed to field to gather research data. Researcher also sought permission from Chief Officer in charge of Agriculture Sector in Kitui County Government. Additionally the National Commission for Science Technology and Innovation granted her letter of permission to conduct study research. During data collection, confidentiality was highly observed with respondents' names not recorded.

Table 3. 3: Operationalization of Variables

Study Objective	Independent Variables	Dependent Variable	Indicator	Measurement	Level of Scale	Tools of analysis
To assess how participatory project identification has influenced implementation of KCEP project	Participatory project identification	Implementation of KCEP	Sourcing of project ideas Community attendance to project conceptual forum	Number of conceptual forums attended	Ordinal Nominal	Descriptive statistics Multiple linear Regression Model
To determine how participatory project planning is influencing implementation of KCEP project	Participatory project planning	Implementation of KCEP	Participation in the development of project plans Consultation on resources needed	Presence of project plans in records	Ordinal Nominal	Descriptive statistics Multiple linear Regression Model
To investigate how participatory project leadership is influencing implementation of KCEP project	Participatory project leadership	Implementation of KCEP	Existing of criteria to select farmers' group's committee officials as key decision makers.	Frequency of community management committees meetings	Ordinal Nominal	Descriptive statistics Multiple linear Regression Model

<p>To determine how participatory project monitoring and evaluation is influencing implementation of KCEP</p>	<p>Participatory project monitoring and evaluation</p>	<p>Implementation of KCEP</p>	<p>Involving Community members to monitor and evaluate Community accessing information on project process</p>	<p>How frequent the members participated in monitoring and evaluation activities</p>	<p>Ordinal Nominal</p>	<p>Descriptive statistics Multiple linear Regression Model</p>
---	--	-------------------------------	---	--	----------------------------	--

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION OF RESEARCH FINDINGS

4.1. Introduction

This chapter presents response rate, pilot study results, general characteristic of study sample, descriptive statistics, and qualitative analysis, diagnostic test for the study variables, correlation analysis, regression analysis and discussion of the findings.

4.2 Response Rate

Response rate denote, “the extent to which the final data sets includes all sample members and is calculated as the number of respondents with whom questionnaires are completed divided by the total number of respondents in the entire sample including non –respondents” (Orodho, 2003). The purpose of determining the response rate was to ensure the responses collected effectively represented the target population which is critical in the generalizing the study findings as well as informing the decision on the influence of community involvement on implementation of Kenya Cereals Enhancement Programme. Out of a sample of 110 made up of 96 community members and 14 group officials, 94 community members and 14 group officials, totaling to 108 respondents out of the possible 110 took part in the research. This implies a response rate of 98.18 was attained with the distribution broken down in Table 4.1.

The high response rate was realized due to the researcher adoption of different strategies including making personal visits to remind the respondents to complete and return the questionnaires. As recommended by Draugalis et al., (2008) a response rate of 60% is considered adequate and hence this allowed researcher to proceed with the analysis.

Table 4. 1: Response Rate

Category	Frequency	Percent
Response	108	98.18
Non response	2	1.81
Total	110	100

4.3 Reliability and Validity Test

According to Bell (2010), reliability refers to the extent of consistency by which an instrument measures what it is intended to measure. For the purposes of validating the research instrument, a pilot study was undertaken to KCEP beneficiaries not selected for the actual study data collection. There is no one universally accepted score to determine reliability, a minimum of 0.7 Cronbach's alpha values are considered adequate. The Cronbach's alpha coefficient should range between 0 and 1. A higher alpha coefficient value implies that scales are more reliable. Acceptable alpha should be at-least 0.7 0 or above though this is reliant on the number of items included in the scale (Heale & Twycross, 2015). During the pilot study, the technique used involved administration of the same instrument twice among the same individual. The alpha for all the values was determined by utilizing SPSS application which was gauged as per each other at a cut off value of 0.7, which is highly recommended by Heale and Twycross (2015). In the present study, the alpha value was 0.740 which implies consistency of items in all variables, hence reliability was attained.

Table 4. 2: Reliability test

Variables	No of Items	Cronbach Alpha
Participatory Project Identification	8	0.764
Participatory Project Planning	8	0.750
Participatory leadership	5	0.706
Participatory Monitoring and evaluation	9	0.812
Government Policy	5	0.709
Implementation of KCEP	4	0.700
Average Cronbach's Alpha	39	0.740

4.4 General Characteristics of the Study Sample

This analyses the background information of the respondents from their gender, age, education level, marital status and the number of years the respondents had lived in the locality.

4.4.1 Gender of Respondents

The study sought to establish distribution of the gender of the farmers of which the findings indicate simple majority of 69.44% of the respondents were female while the rest 30.56 % were male as shown in Table 4.3 below. This portrays that the majority of the respondents were female

termed as vulnerable, indicating the gender biasness in KCEP in Mwingi central sub county. Alternatively, this may be interpreted to mean that most male undertake different economic activities other than farming. The gender distribution depicts a fair balance of gender and thus expected to accommodate the opinions and views from both sides of the gender divide.

Table 4. 3: Gender Distribution

Gender	Frequency	Percent
Male	33	30.56
Female	75	69.44
Total	108	100.0

4.4.2 Age of Respondents

The study sought to determine the age of the respondents who again are the beneficiaries of Kenya Cereal Enhancement Programme in Mwingi Central Sub County. The results in Table 4.4 indicate that majority of the respondents (33.3%) were aged between 30-40 years. Beneficiaries aged between 52-62 years at 30.6% followed by 23.1% and 12.0% of the respondents were aged between 41-51 years and 18-29 years respectively as indicated in the study findings. The findings of this study indicate that Kenya Cereals Enhancement Programme benefit community members across all ages. The programme is well balanced as it benefits both the old and the youths engaged in farming activities in the sub county.

Table 4. 4: Age of Respondents

Age Range	Frequency	Percentage
18-29	13	12.0
30-40	36	33.3
41-51	25	23.1
52-62	33	30.6
Other Specify	1	0.9
TOTAL	108	100

4.4.3 Education Level of Respondents

The results of table 4.5 shows that majority of the respondents are holders of primary and secondary school level represented by 39.8% and 24.1% respectively. Twenty-one point three (21.3%) of the respondents were college/university level holders while 14.8% of the respondents have never gone to school. This shows that the respondents have the required basic information and knowledge on matters of farming and project management. Moreover, the well-educated respondents mean that they were well informed with project management and implementation hence they furnished this study with better information which added value. The findings also indicate that farming is not for the illiterate and thus basic education is required for the success of cereal enhancement programme.

Table 4. 5: Education level

Education level	Frequency	Percentage
Never gone to school	16	14.8
Primary	43	39.8
Secondary	26	24.1
College/university	23	21.3
Total	108	100.0

4.4.4 Years Lived in the Locality

The study sought to know the number of years each respondent had lived in the locality of Mwingi Central Sub County. Majority (92.6%) of the respondents had lived in the sub county for more than 11 years while 3.7% had lived in the locality for less than 5 years as shown in the results of Table 4.6. The findings of the study also indicate that 3.7% of the respondents had lived in the locality for between 6-10 years. This shows that the respondents had adequate experience with the region and therefore they possess the necessary farming knowledge and skills considered useful for this study. Generally, the length of experience with the locality is vital to contribute to crucial decision making in cereal enhancement in particular and farming in general. The more experienced the respondents are, the more weighted is their opinion in decision-making.

Table 4. 6: Years lived in the locality

Years lived in the locality	Frequency	Percent
0- 5 Years	4	3.7
6-10 Years	4	3.7
11 and above	100	92.6
Total	108	100.0

4.4.5 Marital status of respondents

The study sought to determine the marital status of respondents in the Kenya cereal enhancement programme in Mwingi central sub county. Majority of the respondents (77.8%) were married as 18.5% were single and 3.75% widowed. The findings mean that the cereal enhancement programme benefits a wide range of beneficiaries notwithstanding the beneficiaries' marital status.

Table 4. 7: Marital Status of Respondents

Marital Status	Frequency	Percentage
Single	20	18.5
Married	84	77.8
Divorced	0	0.0
Widowed	4	3.7
Other specify	0	0.0
Total	108	100

4.5 Descriptive Aanalysis

Descriptive statistics is the term given to the analysis of data that helps describe, show or summarize data in a meaningful way. Descriptive analysis was used to describe the basic features of the data in the study giving a summary about the sample and the measure. It also helped in the

simplification of large amounts of data in a sensible and manageable form. It expressed the variables into frequencies, percentages, means and standard deviation.”

4.5.1 Participatory Project Identification

The study sought to establish how participatory project identification influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County. This objective was measured using sourcing of project ideas and community attendance to project conceptual forum as indicators in the opinion statements given. Respondents were asked to indicate the extent to which participatory project identification influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County. This was on a likert scale of 1 - Strongly disagree, 2 – Disagree, 3 – Neutral, 4 - Agree and 5- Strongly agree. The results were expressed as percentages, as shown in Table 4.8 below.

Table 4. 8: Responses on the influence of participatory project identification on implementation of Cereals Enhancement Project

Clauses	5	4	3	2	1
	%	%	%	%	%
There is an existing criterion used in the identification of a community development projects	36.1	49.1	4.6	8.3	1.9
The community participated in the start-up meeting for project needs identification	58.3	34.3	0	6.5	0.9
Recording of community members attending the start-up meeting was done	56.5	23.1	11.1	8.3	0.9
The identified community needs are being addressed through KCEP	42.6	41.7	7.4	6.5	1.9
The community members participated in mapping out of resources for the project	25.9	46.3	9.3	16.7	1.9
The community members participated in identifying the most deserving area to start the poverty reduction through improved food security project	19.4	41.7	19.4	16.7	2.8

Other community members participated in the identification of the poverty reduction through improved food security project	40.7	38.0	13.0	7.4	0.9
There is continuous project needs identification within the project	28.7	41.7	13.0	10.2	6.5

From the results in Table 4.8, majority of the respondents strongly agreed (36.1%) and agreed (49.1%) that there is an existing criterion used in the identification of a community development projects in the region. Despite this, 10.2% of the respondents hold a different opinion that such a criterion does not exist as 4.6% of the respondents opted to remain neutral. Majority of the respondents (92.6%) agreed that the community participated in the start-up meeting for project needs identification as attributed by the study findings. Community members attending the startup meetings are recorded as indicated by 56.5% and 23.1% of the respondents who agreed on the same.

The identified community needs are addressed through KCEP as shown by 84.3% of the respondents who are beneficiaries of the cereal enhancement programme in the region. The findings of this study indicate that the community members participated in mapping out of resources for the cereal enhancement project as agreed by majority of the respondents at 72.2%. The community members (61.1%) also participated in identifying the most deserving area to start the poverty reduction through improved food security project.

The study sought the awareness of respondents on other community members' participation in the identification of the poverty reduction through improved food security project. The study findings indicated that majority of the respondents (78.7%) were aware of the same. Lastly, respondents agreed (70.4%) that there is continuous project needs identification within the cereal enhancement project in Mwingi Central Sub County.

The findings of this study were in line with Hech (2013) findings who asserted that members of a community should be involved in development activities since they hold diverse expectations and inspirations that may not coincide with the needs of people outside the community. Minkler *et al.* (2008) supported this by reporting that it was important to involve community members during

the initiation stages of a project because it improved the community’s capacity to identify problems, participate in decision-making and translate problems into solutions or action.

4.5.2 Participatory Project Planning

The study sought to determine how participatory planning influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County. Participation in the development of project plans, consultation on resources (human& non-human) needed and awareness of project planning tools was used as indicators for the objective. Respondents were asked to indicate the extent to which participatory planning influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County. This was on a likert scale of 1 - Strongly disagree, 2 – Disagree, 3 – Neutral, 4 - Agree and 5- Strongly agree. The results were expressed as percentages, as shown in Table 4.9 below.

Table 4. 9: Responses on the influence of participatory project planning on implementation of Cereals Enhancement Project

Clauses	5 %	4 %	3 %	2 %	1 %
The community members participated in developing project plans	34.3	40.7	10.2	10.2	4.6
The community members participated in the selection of the community-based committees	38.0	33.3	9.3	16.7	2.8
Community participate in the selection of relevant business/collective projects	25.0	30.6	19.4	22.2	2.8
There is an existing schedule for project planning activities	26.9	32.4	14.8	20.4	5.6
During the project planning meeting minutes are taken and confirmed by the members present	32.4	39.8	11.1	14.8	1.9
Minutes are taken by one of the community members (community committee members or delegated to an ordinal farmer.	38.0	30.6	14.8	14.8	1.9
In case a member misses the planning meeting, she/he is penalized	35.2	22.2	15.7	22.2	4.6
The captured minutes guide actions deliberated and agreed during project planning minutes.	28.7	29.6	17.6	16.7	7.4

From the findings in Table 4.9 majority of the respondents agreed (40.7%) and strongly agreed (34.3%) that the community members participated in developing project plans. Some of the respondents 14.8% disagreed to the statement showing their lack of involvement. The community

members participated in both the selection of the community-based committees and the selection of relevant business/collective projects as agreed by 55.6% of the respondents.

The study findings indicate that there is an existing schedule for project planning activities as shown by 26.9% and 32.4% of the respondents who strongly agreed and agreed to the statement. During the project-planning meeting, minutes are taken and confirmed by the members present. The minutes are taken by one of the community members who either is a community committee member or delegated to an ordinal farmer. This is clearly shown by the results in table 4.9. The captured minutes guide actions deliberated and agreed during project planning minutes as alluded by 28.7% and 29.6% of the beneficiaries' opinions. The planning meetings are very important and missing such meetings amounts to penalties to members as proved by 35.2% and 22.2% of the respondents. Contrary Rothman (2011) recommended use of community organizers as key informants that represented groups in the local community. This would simplify the planning process because these organizers would represent the community's needs, aspirations and concerns in the planning process and decision-making.

4.5.3 Participatory Project Leadership

The study sought to establish how participatory leadership influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County. The objective was measured by looking into the existing criteria on selection of community management committee and community involvement in decision-making. Respondents were asked to indicate the extent to which participatory leadership influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County. This was on a likert scale of 1 - Strongly disagree, 2 – Disagree, 3 – Neutral, 4 - Agree and 5- Strongly agree. The results were expressed as percentages, as shown in Table 4.10 below.

Table 4. 10: Responses on the influence of participatory leadership on implementation of Cereals Enhancement Project

Clauses	5	4	3	2	1
	%	%	%	%	%
There are community members who are members of the project management committee	50.9	35.2	5.5	7.4	0.9
There is an existing criteria on the selection of project management committee members	40.7	37.0	12.0	9.3	0.9
decisions are made on remedial measures/sanctions in case of misuse of the project	34.3	30.6	22.2	6.5	6.5
Community members participate in project capacity development meetings	36.1	27.7	25.0	8.3	2.8
Community participate in signing MOU stipulating roles and responsibilities of each party	32.4	34.3	16.7	13.0	3.7

Majority of the respondents agreed (86.1%) that there are community members who are members of the project management committee. This means that members of the community manage the cereals enhancement programme locally. There is an existing criterion on the selection of project management committee members as ascertained by 40.7% and 37% of the respondents. The findings of this study also indicate that community members participate in project capacity development meetings and in signing of MOUs stipulating roles and responsibilities of each party. This is as per the responses of 63.8% and 66.7% of the beneficiaries of KCEP. Respondents also agreed that in case of misuse of the project, decisions are made on remedial measures/sanctions as shown by 64.9% of the opinions. The findings of this study concur with the findings of Martiskainen (2015) that leadership at the community level plays a major role during project team engagement with stakeholders, seeking resource funding and learning new skills. In addition, the findings indicated that community leaders are able to recognize other’s useful skills and utilize those in the project.

4.5.4 Participatory Project Monitoring and Evaluation

The study sought to assess how participatory monitoring and evaluation influence implementation of Cereals Enhancement Project in Mwingi Central Sub County. To measure this objective, the

study looked into community involvement in monitoring and evaluation process and community accessing information on project progress as indicators in the opinion statements given. Respondents were asked to indicate the extent to which participatory monitoring and evaluation influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County. This was on a likert scale of 1 - Strongly disagree, 2 – Disagree, 3 – Neutral, 4 - Agree and 5- Strongly agree. The results were expressed as percentages, as shown in Table 4.11 below.

Table 4. 11: Responses on the influence of participatory monitoring and evaluation on implementation of Cereals Enhancement Project

Clauses	5	4	3	2	1
	%	%	%	%	%
Community members take part in the monitoring and evaluation of the project by serving as survey respondents.	24.1	44.4	13.0	11.1	7.4
Community members are aware of some of the monitoring tools used for project monitoring	17.6	46.3	14.8	15.7	5.6
Community members are aware of the project set goals for achievement	34.3	28.7	19.4	12.0	5.6
Community members are employed in periodic project monitoring and evaluation exercises	9.3	32.4	14.8	14.8	28.7
There is an existing complaint and feedback mechanism in the project	22.2	47.2	15.7	10.2	4.6
Complaint and feedback mechanism is effective	18.5	41.7	15.7	19.4	4.6
There is an existing mechanism to address disputes in the poverty reduction through improved food security project	23.1	44.4	14.8	14.8	2.8
Dispute resolution mechanism is effective	26.0	41.7	16.6	13.0	2.8
The community is informed on the progress of the poverty reduction through improved food security project	27.8	41.7	14.8	10.2	5.6

The results in Table 4.11 indicate that the community members take part in the monitoring and evaluation of the cereals enhancement project by serving as survey respondents. This was ascertained by 24.1% and 44.4% of the respondents who agreed to the fact. The findings indicate that members of the community are aware of some of the monitoring tools used for project

monitoring as shown by 63.9% of the responses. Community members are also aware of the project set goals for achievement.

There is evidence that community members are employed in periodic project monitoring and evaluation exercises. This is as per the assertions of 9.3% and 32.4% of the responses from the project beneficiaries. There is an existing complaint and feedback mechanism in the cereal enhancement project as attributed by 69.4% of the responses. Majority of the respondents (60.2%) agreed that the existing complaints and feedback mechanism is effective.

Respondents (67.5%) agreed that there is an existing mechanism to address disputes in the poverty reduction through improved food security project and 67.5% attested that the dispute resolution mechanism is effective. Lastly, the community is informed on the progress of the poverty reduction through improved food security project as attributed by 69.5% of the respondents. The findings were in line with Reid (2012) study that active participation of stakeholders in the monitoring and evaluation process is a very powerful empowerment tool. Reid (2012) observed that community participation in monitoring reduced alienation of the community by empowering the public to voice their opinions and suggestions on how projects could be improved or adapted to changing political, social, cultural and economic environments.

4.5.5 Implementation of Kenya Cereal Enhancement Programme

Respondents were asked to indicate the extent to which the Kenya Cereal Enhancement project had achieved various aspects of project management. Among the listed included: Project objectives met, improved living standards, recorded growth and profitability. This was on a likert scale of, 5(SA) = Strongly Agree, 4(A) = Agree, 3(N) = Neutral, 2(D) = Disagree and 1(SD) = strongly Disagree; the results were expressed as percentages, as shown in Table 4.12 below.

Table 4. 12: Responses on Implementation of Kenya Cereals Enhancement Programme

Statements	Mean
Project objectives met	4.65
Improved living standards	4.50
Recorded growth	4.65
Profitability	4.87

The findings of the study indicate that Kenya cereals enhancement programme had achieved important aspects of project management such as meeting project objectives (Mean=4.65), improvement of community living standards (Mean=4.50), recorded growth (Mean=4.65) and Profitability (Mean=4.87).

4.6 Qualitative analysis

4.6.1 Participatory Project Identification

Exploration of the views of KCEP farmers on participatory project identification was conducted using one item. The study sought to determine ways through which involving community in identification of project affect implementation of food security project. Six themes commonly emerged from the participating farmers concerning the effect of community involvement on implementation of food security project. Among the commonly identified ways included: Ability to identify the most deserving people from the community and ability to establish the priority needs of the community. Other emerging ways include ability to come up with the best choice of crops for the farmers, ownership of the project by community members and ability to come up with long lasting solutions to food insecurity and poverty. Involvement of community in project identification also creates a platform to get diverse opinions/ideas on suitable food security projects and offers opportunity to community members to participate fully in the project.

4.6.2 Participatory Project Planning

Examination of farmers' views on participatory project planning was examined using one open-ended question. The study sought to determine the ways through which participatory project planning influence implementation of food security project. From the examination of the views of KCEP farmers, the following commonly emerged as the ways through which community

involvement in planning aid in implementation. The respondents observed that it creates an avenue for planning and agree on priority areas; helps get updates on what is happening and any emerging issues and gives all farmers an opportunity to directly participate. Others included an avenue to share ideas, develops plans that fit to their situation, creates cohesion and establishment of new links for support among farmers and lastly enables the farmers to be organized

4.6.3 Participatory Project Leadership

The study sought to determine the ways through which participatory project leadership influenced implementation of food security project. Commonly emerging from the views of the respondents is that it is an avenue to address the needs of the farmers by bridging the gap between the farmers and project management/technical teams; helps in timely conflict resolution and fosters acceptance of the project by the community members. Others emerging from the themes are; easy to get support of the community to contribute their resources and motivate them to continue with the project without external support; it is an avenue to contribute in technical advice since they have better understanding of the local situation; it makes communication between farmers and project technical team more efficient and effective and it enhances capacity of the local leaders to mobilize for resources thus contributes to sustainability of the gain of the project beyond its life cycle.

4.6.4 Participatory Project Monitoring and Evaluation

Exploration of the views of KCEP farmers on participatory project monitoring and evaluation was conducted using two items. First, the study sought to determine two ways through which involving community in project monitoring and evaluation influence implementation of food security project. Secondly, the study sought to determine measures that can be done to improve on success of food security projects.

Emerging from the views of farmers concerning the benefits of community involvement in monitoring and evaluation of projects include: boost of farmers' morale, increase in honesty and it is an avenue to consult on what is working for the fellow farmer for replication to own farm. Other benefits include improved yields, timely corrective measures, improved integrity of farmers and technical teams and enhancement of local capacity of mentoring each other.

Some of measures that can be done to improve on success of food security projects are conducting more training to the farmers on key topics like vegetable production, pest control, and timing of planting seasons; providing market linkage for farmers' farm produce, conducting frequent farm visits for mentorship and motivation. Other measures include organizing for regular review of

project performance to inform future plans, re-evaluating beneficiary inclusion criteria especially in case of failed rains leading to total crop failure and organizing for field days, exchange visits to other farmers' groups or counties for learning and exposure.

4.7. Multicollinearity Test

Multicollinearity is the undesirable situation where the correlations among the independent variables are strong. In other words, multicollinearity misleadingly bloats the standard errors. Thus, it makes some variables statistically insignificant while they should be else significant (Martz, 2013). Tolerance of a respective independent variable is calculated from $1 - R^2$. A tolerance with a value close to 1 means there is little multicollinearity, whereas a value close to 0 suggests that multicollinearity may be a threat (Belsley, Kuh & Welsch, 2004).

The reciprocal of the tolerance is known as Variance Inflation Factor (VIF). Equally, the VIF measures multicollinearity in the model in such a way that if no two independent variables are correlated, then all the VIF values will be 1, that is, there is no multicollinearity among factors. But if VIF value for one of the variables is around or greater than 5, then there is multicollinearity associated with that variable (Martz, 2013). Absence of multicollinearity allows the study to utilize all the independent variables. Table 4.13 indicates the test results for multicollinearity, using both the VIF and tolerance. With VIF values, being less than 5 it was concluded that there was no presence of multicollinearity in this study.

Table 4. 13: Multicollinearity Statistics

Variables	Tolerance	VIF
Participatory Project Identification	.478	2.092
Participatory Project Planning	.604	1.656
Participatory Leadership	.550	1.818
Participatory Monitoring and Evaluation	.589	1.697
Government Policy	.508	1.969

4.8 Correlation Analysis

Correlation coefficients enable a researcher to quantify the strength of the linear relationship between two or more variables (Saunders et al., 2009). Correlation is a measure of the degree of relatedness of variables (Ken, 2010). Several measures of correlation are available, the selection of which depends mostly on the level of data being analyzed. For only ordinal-level or ranked data, Spearman's rank correlation (r), can be used to analyze the degree of association of two continuous variables. Pearson product-moment correlation coefficient requires at least interval level of measurement for the data (Ken, 2010).

Correlation coefficients provide a numerical summary of the direction and the strength of the linear relationship between two variables. Pearson correlation coefficients (r) range from -1 to $+1$. The sign at the front indicates whether there is a positive or a negative correlation. The size of the absolute value provides information on the strength of the relationship. A value of 0 means that the variables are perfectly independent that is no relationship exists, a value of $+1$ represents a perfect positive correlation and a value of -1 represents a perfect negative correlation (Saunders et al., 2009). To determine the strength and direction of the linear relationship between independent and dependent variables for this study, Pearson Product Moment Correlation was used and the results obtained are summarized in the below;

Table 4. 14: Pearson Product-Moment Correlations between Community Involvement and Implementation of Kenya Cereals Enhancement Programme

Variable		Participatory Project Identification	Participatory Project Planning	Participatory Leadership management	Participatory Monitoring and Evaluation	Implementation of KCEP
Participatory Project Identification	Pearson Correlation Sig. (2-tailed) N	1 108				
Participatory Project Planning	Pearson Correlation Sig. (2-tailed) N	.361** .000 108	1 301			
Participatory Leadership	Pearson Correlation Sig. (2-tailed)	.426** .000	.475** .001	1		

	N	108	108	108		
Participatory Monitoring and Evaluation	Pearson Correlation	.450**	.459**	.597**		1
	Sig. (2-tailed)	.001	.003	.000		
	N	108	108	108	108	
Implementati on of KCEP	Pearson Correlation	.462**	.483**	.431**	.684**	1
	Sig. (2-tailed)	.001	.000	.002	.000	
	N	108	108	108	108	108

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation between community involvement and implementation of Kenya Cereals Enhancement Programme was investigated using Pearson product-moment correlation coefficient. There was positive correlation between the dependent and the set of independent variables. The strength of the relationship between the independent variables and the dependent variable (implementation of Kenya Cereals Enhancement Programme) varied from moderate to strong with Participatory project identification ($r=0.462$), Participatory project planning ($r=0.483$), Participatory leadership ($r=0.431$), Participatory monitoring and evaluation ($r=0.684$). All the relationships are rendered significant since their p values are less than 0.05.

The findings in Table 4.14 indicate that there is a weak and significant positive relationship between participatory project identification and participatory project planning as attributed by the correlation coefficient of 0.361 and p-value of 0.000. The correlation matrix table shows presence of strong and significant positive relationship between participatory leadership and participatory monitoring and evaluation ($r=0.597$, $p=0.000$). This is because leadership skills are need in monitoring and evaluation of projects.

The results shows presence of a positive and significant moderate relationship between participatory leadership and participatory project identification as proved by the p-value and the correlation coefficient ($r=0.426$, $p=0.000$). A positive and significant moderate relationship between participatory leadership and participatory project planning exists as proved by the p-value and the correlation coefficient ($r=0.475$, $p=0.001$).

There is an evidence of significant weak relationship between participatory monitoring and evaluation and participatory project identification as attributed by the p value and correlation coefficient ($r=0.450$, $p=0.001$). Lastly the results in the correlation matrix indicate a moderate and

significant weak relationship between participatory monitoring and evaluation and participatory project planning as shown by $r=0.459$ and p-value of 0.03.

4.9 Regression Analysis Results

This study utilized multiple linear regression analysis to examine the relationship of the predictor variables with the dependent variable. Since there are four independent variables in this study, the multiple regression models generally assumed the following equations;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \dots\dots\dots (1)$$

Where:

Y = Implementation of Kenya Cereals Enhancement Project

β_0 =constant

$\beta_1, \beta_2, \beta_3$ and β_4 = regression coefficients

X_1 = Participatory Project Identification

X_2 = Participatory Project Planning

X_3 = Participatory Project Leadership

X_4 = Participatory Project Monitoring & Evaluation

ε =Error Term

Adjusted R^2 which is known as the coefficient of determination was used to explain how implementation of Kenya Cereals Enhancement Project varied with participatory project identification, participatory project planning, participatory project leadership and participatory project monitoring & evaluation. The model summary table shows that 77.0% of change implementation of Kenya Cereals Enhancement Project can be explained by four predictors namely participatory project identification, participatory project planning, participatory project leadership and participatory project monitoring & evaluation. This implies that the remaining 23.0% of the variation in implementation of Kenya Cereals Enhancement Project (COA) could be accounted for by other factors not in this study.

Table 4. 15: Model Summary

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
	.878 ^a	.770	.732	.594		
Predictors: (Constant), Participatory Project Identification, Participatory Project Planning, Participatory Project Leadership and Participatory Project Monitoring & Evaluation						

Analysis of variance (ANOVA) was done to establish the fitness of the model used. The ANOVA table shows that the F-ratio ($F=40.227$, $p=.000$) was statistically significant. This means that the model used was appropriate and the relationship of the variables shown could not have occurred by chance.

Table 4. 16: ANOVA

ANOVA ^a						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
Regression	28.367	4	7.092	40.227	.000 ^a	
Residual	18.159	103	.1763			
Total	46.526	107				

a. Dependent Variable: Implementation of Kenya Cereals Enhancement Project

b. Predictors: (Constant), Participatory Project Identification, Participatory Project Planning, Participatory Project Leadership and Participatory Project Monitoring & Evaluation

Table 4. 17: Regression coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.281	1.234		.228	.048
Participatory Project Identification	.254	.330	.238	.769	.001
Participatory Project Planning	.392	.421	.386	.931	.000
Participatory Project Leadership	.469	.389	.329	1.206	.000
Participatory Project Monitoring & Evaluation	.452	.660	.632	0.685	.001

a. Dependent Variable: Implementation of Kenya Cereals Enhancement Project

The above table gives the results for the regression coefficient for the multiple linear equations ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$) which by supplying the coefficients becomes:

$$Y = 0.281 + 0.254 X_1 + 0.392X_2 + 0.469X_3 + 0.452X_4$$

Where

Y = Implementation of Kenya Cereals Enhancement Project

X_1 = Participatory Project Identification

X_2 = Participatory Project Planning

X_3 = Participatory Project Leadership

X_4 = Participatory Project Monitoring & Evaluation

According to the regression equation established, holding all independent factors a constant (*Ceteris paribus*) then implementation of KCEP will be 0.281 units. From the regression equation

holding all other independent variables a constant, a unit increase in participatory project identification will lead to a 0.254 improvement in implementation of KCEP. A unit change in participatory project planning will lead to a 0.392 increase in implementation of KCEP; a unit increase in participatory project leadership will lead to a 0.469 improvement in implementation of KCEP and a unit increase in participatory project monitoring and evaluation will lead to a 0.452 increase in implementation of KCEP in Mwingi Central Sub County.

However, at 5% level of significance and 95% level of confidence participatory project identification, participatory project planning, participatory project leadership and participatory project monitoring & evaluation have a significance influence (P-value<0.05) on implementation of Kenya Cereals Enhancement Project with p-values of 0.001, 0.00, 0.00 and 0.001 respectively and therefore their coefficients should be retained in the final model. The results further infer that of all the predictors considered in this study participatory project leadership contributes the most to implementation of KCEP followed by participatory project monitoring and evaluation and participatory project planning as implicated by their larger coefficients.

4.9.1 Moderating Effect of Government Policy

Moderated Multiple Regression (MMR) analysis was followed to determine the moderating effect of government policy on the relationship between community involvement and implementation of Kenya Cereals Enhancement Project. To assess the moderating effect of government policy, the following model was used.

$$Y = \beta_0 + \beta_1X + \beta_2Z + \varepsilon \dots\dots\dots (2)$$

Where

β_0 = Y intercept

β_1 = the estimate of the population regression coefficient for X

β_2 = the estimate of the population regression coefficient for Z

X= Community Involvement

Z= Government Policy

Y= implementation of Kenya Cereals Enhancement Project

ε = a residual term.

The moderated multiple linear regression involved two models. Model 1: estimating the main influence of community involvement on implementation of KCEP in Mwingi central sub county

and Model 2, estimating the main influence of the community involvement and the government policy.

The model summary result in Table 4.18 indicates that the unadjusted coefficient of determination for model 1 is 0.770. This implies that community involvement considered in this study accounts for only 77.0% of the total variation in implementation of Kenya Cereals Enhancement Programme, the remaining 23.0% change in implementation of Kenya Cereals Enhancement Programme can be attributed to other factors not considered in this study.

For model 2, the $R^2 = 0.806$, an implication that community involvement and government policies accounts for about 80.6 % of the total change in implementation of Kenya Cereals Enhancement Programme, and thus the remaining 19.4% of the variation in implementation of Kenya Cereals Enhancement Programme can be accounted for by other factors not of interest in this study. The R^2 increased by 3.6% when the government policies were considered in addition to the community involvement.

Table 4. 18: Summary Models Used to Test for the Moderating Effect

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	R square change
1	.878 ^a	.770	.732	.5941	.770
2	.898 ^b	.806	.774	.9390	.036

a. Predictors: (Constant), Community Involvement

b. Predictors: (Constant), Community Involvement , Government Policy

c. Dependent Variable: Implementation of Kenya Cereals Enhancement Programme

Table 4.19 shows the ANOVA results for the models considered in testing for the moderating effect of government policy. The results, Model 1 (F-statistics=40.227, $p < 0.001$) and Model 2 (F-statistics=14.422, $p < 0.001$) indicates that all the two models remained significant despite use of the different predictors.

Table 4. 19: ANOVA for the Models Used to Test for the Moderating Effect

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	28.367	4	7.092	40.227	.000 ^a
	Residual	18.159	103	.1763		
	Total	46.526	107			
2	Regression	32.953	5	6.591	14.422	.000 ^b
	Residual	46.567	102	.457		
	Total	79.520	107			

a. Dependent Variable: Implementation of Kenya Cereals Enhancement Project

Table 4.20 presents the regression coefficients, the t- statistics and the significance of the coefficients obtained from the two models, used to investigate whether government policy have moderating effect on the relationship between community involvement and implementation of Kenya Cereals Enhancement Programme. The result indicates that when community involvement considered in this study are used together in a multiple linear regression, then participatory project identification ($\beta=0.254$, $p=0.001$) participatory project planning ($\beta=0.392$, $p=0.000$), participatory leadership ($\beta=0.469$, $p=0.000$) and participatory monitoring & evaluation ($\beta=0.452$, $p=0.001$), have significant positive influence on implementation of Kenya cereals enhancement programme. When the moderator is included, the results of model 2 shows that participatory project identification ($\beta=0.229$, $p=0.001$), participatory project planning ($\beta=0.244$, $p=0.000$), participatory project leadership ($\beta=0.448$, $p=0.001$), participatory monitoring & evaluation ($\beta=0.430$, $p=0.000$) and the moderator government policy ($\beta=0.364$, $p=0.002$) have a significant positive influence on implementation of Kenya cereals enhancement programme.

Table 4. 20: Coefficients for the Models Used to Test for Moderating Effect

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
(Constant)	.281	1.234			.228	.048
Participatory Project Identification	.254	.330	.238		.769	.001
Participatory Project Planning	.392	.421	.386		.931	.000
Participatory Project Leadership	.469	.389	.329		1.206	.000
Participatory Project Monitoring & Evaluation	.452	.660	.632		0.685	.001
2 (Constant)	.255	.161			1.584	.000
Participatory Project Identification	.229	.114	.105		2.008	.001
Participatory Project Planning	.244	.138	.112		1.768	.000
Participatory Project Leadership	.448	.103	.085		4.350	.001
Participatory Project Monitoring & Evaluation	.430	.156	.129		2.756	.000
Government Policy	.364	.108	.098		3.370	.002

a. Implementation of Kenya Cereals Enhancement Programme

Thus, the regression model after moderation becomes:

Implementation of Kenya Cereals Enhancement Programme = 0.255 + 0.229 Participatory Project Identification + 0.244 Participatory Project Planning + 0.448 Participatory Project Leadership + 0.430 Participatory Project Monitoring and Evaluation + 0.364 Government Policy

The study thus concludes that government policy moderates the relationship between community involvement and Implementation of Kenya Cereals Enhancement Programme in Mwingi Central Sub County.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the study findings, conclusions made based on the study objectives and recommendations of the study as well as suggestions for further research.

5.2 Summary of Findings

This study sought to determine the influence of community involvement on implementation of Kenya Cereals Enhancement Programme using a case of Mwingi Central Sub County in Kitui County. Specifically, the study examined the influence of participatory project identification participatory planning, participatory leadership and participatory monitoring and evaluation on implementation of Cereals Enhancement Project in Mwingi Central Sub County. The study used government policy as a moderating variable and employed a descriptive survey research design to achieve these objectives.

The study indicated that jointly, participatory project identification participatory planning, participatory leadership and participatory monitoring and evaluation influence the implementation of Kenya cereals enhancement programme using a case of Mwingi central sub -county in Kitui County. The findings indicate that 77% of change in KCEP implementation can be explained by four predictor's namely participatory project identification participatory planning, participatory leadership and participatory monitoring and evaluation implying that the remaining 23% of the variation in project implementation could be accounted for by other factors not considered in this study.

5.2.1 Influence of Participatory Project Identification on Implementation of KCEP

The study sought to establish how participatory project identification influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County. This objective was measured using sourcing of project ideas and community attendance to project conceptual forum as indicators in the opinion statements given.

The results indicate 85% of respondents agreed that there is an existing criterion used in the identification of a community development projects in the region. Majority (92 %) of the respondents agreed that the community participated in the start-up meetings for project needs

identification. Community members attending the startup meetings are recorded. Further, the identified community needs are addressed through KCEP as shown by 84 % of the respondents who are beneficiaries of the cereal enhancement programme in the region. The findings of this study indicate that the community members participated in mapping out of resources for the cereal enhancement project as indicated by 72%. Community members also participated in identifying the most deserving area to start the poverty reduction through improved food security project as indicated by 61%. The study sought the awareness of respondents on other community members' participation in the identification of the poverty reduction through improved food security project. The study findings indicated that majority (78 %) of the respondents were aware of the same. Lastly, respondents (70%) agreed that there is continuous project needs identification within the cereal enhancement project in Mwingi Central Sub County.

The study sought to determine ways through which involving community in identification of project affect implementation of food security project. Six themes commonly emerged from the participating farmers concerning the effect of community involvement on implementation of food security project. Among the commonly identified ways included: Ability to identify the most deserving people from the community and ability to establish the priority needs of the community. Other emerging ways include ability to come up with the best choice of crops for the farmers, ownership of the project by community members and ability to come up with long lasting solutions to food insecurity and poverty. Involvement of community in project identification also creates a platform to get diverse opinions/ideas on suitable food security projects and offers opportunity to community members to participate fully in the project. Multiple regressions analysis revealed that there is a positive significant linear relationship between participatory project identification and implementation Kenya cereal enhancement programme.

5.2.2 Influence of Participatory Project Planning on Implementation of KCEP

The study sought to determine how participatory planning influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County. Participation in the development of project plans, consultation on resources (human& non-human) needed and awareness of project planning tools was used as indicators for the objective

From the findings majority (75 %) of the respondents agreed that the community members participated in developing project plans. Some of the respondents (15%) disagreed to the statement

showing their lack of involvement. The community members participated in both the selection of the community-based committees (71 %) and the selection of relevant business/collective projects (56%). The study findings (59%) indicate that there is an existing schedule for project planning activities. During the project-planning meeting, minutes are taken and confirmed by the members present (72%). The minutes are taken by one of the community members who either are a community committee member or delegated to an ordinal farmer (68%). The captured minutes guide actions deliberated and agreed during project planning minutes (58 %). The planning meetings are very important and missing such meetings amounts to penalties to members (57%). Contrary, Rothman (2011) recommended use of community organizers as key informants that represented groups in the local community. This would simplify the planning process because these organizers would represent the community's needs, aspirations and concerns in the planning process and decision-making.

The study sought to determine the ways through which participatory project planning influence implementation of food security project. From the examination of the views of KCEP farmers, the following commonly emerged as the ways through which community involvement in planning aid in implementation. The respondents observed that it creates an avenue for planning and agree on priority areas; helps get updates on what is happening and any emerging issues and gives all farmers an opportunity to directly participate. Others included an avenue to share ideas, develops plans that fit to their situation, creates cohesion and establishment of new links for support among farmers and lastly enables the farmers to be organized. Multiple regressions analysis revealed that there is a positive significant linear relationship between participatory project planning and implementation Kenya Cereal Enhancement Programme.

5.2.3 Influence of Participatory Project Leadership on Implementation of KCEP

The study sought to establish how participatory leadership influenced implementation of Cereals Enhancement Project in Mwingi Central Sub County. The objective was measured by looking into the existing criteria on selection of community management committee and community involvement in decision-making.

Majority (86%) of the respondents agreed that there are community members who are members of the project management committee. This means that members of the community manage the cereals enhancement programme locally. There is an existing criterion on the selection of project management committee members as ascertained by 78 % of the study respondents agreeing to it.

The findings of this study (64 %) also indicate that community members participate in project capacity development meetings and in signing of MOUs stipulating roles and responsibilities of each party (67%). Respondents (65%) also agreed that in case of misuse of the project, decisions are made on remedial measures/sanctions. The findings of this study concur with the findings of Martiskainen (2015) that leadership at the community level plays a major role during project team engagement with stakeholders, seeking resource funding and learning new skills. In addition, the findings indicated that community leaders are able to recognize other's useful skills and utilize those in the project.

The study sought to determine the ways through which participatory project leadership influenced implementation of food security project. Commonly emerging from the views of the respondents is that it is an avenue to address the needs of the farmers by bridging the gap between the farmers and project management/technical teams; helps in timely conflict resolution and fosters acceptance of the project by the community members. Others emerging from the themes are; easy to get support of the community to contribute their resources and motivate them to continue with the project without external support; it is an avenue to contribute in technical advice since they have better understanding of the local situation; it makes communication between farmers and project technical team more efficient and effective and it enhances capacity of the local leaders to mobilize for resources thus contributes to sustainability of the gain of the project beyond its life cycle. Multiple regressions analysis revealed that there is a positive significant linear relationship between participatory project leadership and implementation Kenya Cereal Enhancement Programme.

5.2.4 Influence of Participatory Project Monitoring and Evaluation on Implementation of KCEP

The study sought to assess how participatory monitoring and evaluation influence implementation of Cereals Enhancement Project in Mwingi Central Sub County. To measure this objective, the study looked into community involvement in monitoring and evaluation process and community accessing information on project progress as indicators in the opinion statements given.

The results indicate 68% respondents agreed that community members take part in the monitoring and evaluation of the cereals enhancement project by serving as survey respondents. The findings indicate that 64% members of the community were aware of some of the monitoring tools used for

project monitoring with a close percentage of 63% agreeing that they are also aware of the project set goals for achievement. There is evidence that community members are employed in periodic project monitoring and evaluation exercises as evidenced by 41.7%. However another big proportion of the respondents 44 % disagreed with the statement because they did not have information on any payment or they thought the community members worked voluntarily. There is an existing complaint and feedback mechanism (69%) in the cereal enhancement project and majority (60%) of the respondents agreed that the existing complaints and feedback mechanism is effective.

Majority (68) % of the respondents agreed that there is an existing mechanism to address disputes in the poverty reduction through improved food security project and beneficiaries' similar proportion attested that the dispute resolution mechanism is effective. Lastly, 70 % indicated that community is informed on the progress of the poverty reduction through improved food security project. The findings were in line with Reid (2012) study that active participation of stakeholders in the monitoring and evaluation process is a very powerful empowerment tool.

Emerging from the views of farmers concerning the benefits of community involvement in monitoring and evaluation of projects include: boost of farmers' morale, increase in honesty and it is an avenue to consult on what is working for the fellow farmer for replication to own farm. Other benefits include improved yields, timely corrective measures, improved integrity of farmers and technical teams and enhancement of local capacity of mentoring each other. Some of measures that can be done to improve on success of food security projects are conducting more training to the farmers on key topics like vegetable production, pest control, and timing of planting seasons; providing market linkage for farmers' farm produce, conducting frequent farm visits for mentorship and motivation. Other measures include organizing for regular review of project performance to inform future plans, re-evaluating beneficiary inclusion criteria especially in case of failed rains leading to total crop failure and organizing for field days, exchange visits to other farmers' groups or counties for learning and exposure. Multiple regressions analysis revealed that there is a positive significant linear relationship between participatory project monitoring and evaluation and implementation Kenya Cereal Enhancement Programme.

5.2.5 Moderating Effect of Government Policy on the Relationship between Community Involvement and Implementation of KCEP

Government policy was found to have a moderating effect on the relationship between community involvement and implementation of KCEP. The findings indicated that community involvement and government policy accounts for about 80.6 percent of the total change in implementation of KCEP, and thus the remaining 19.4 percent of the variation in implementation of KCEP could be accounted for by other factors not of interest in this study. The R^2 increased by 3.6 percent when the government policy was considered in addition to the community involvement.

5.3 Conclusion

From the findings of this study, it could be concluded that participatory project identification had a positive significant linear influence on implementation of Kenya Cereals enhancement programme. The findings indicated that there exists a criterion used in the identification of a community development projects in the region. The community also participated in the start-up meetings for project needs identification. The findings of this study indicate that the community members participated in mapping out of resources for the cereal enhancement project and the community members participated in identifying the most deserving area to start the poverty reduction through improved food security project. Lastly, it can be concluded that there is continuous project needs identification within the cereal enhancement project in Mwingi Central Sub County. Involvement of the community in identification of projects gives the locals ability to identify the most deserving people from the community and ability to establish the priority needs of the community. Other emerging benefits of involving the community in project identification include ability to come up with the best choice of crops for the farmers, ownership of the project by community members and ability to come up with long lasting solutions to food insecurity and poverty. Involvement of community in project identification also creates a platform to get diverse opinions/ideas on suitable food security projects and offers opportunity to community members to participate fully in the project.

Regarding participatory project planning, the community members participated in developing project plans. The community members participated in both the selection of the community-based committees and the selection of relevant business/collective projects. The study findings indicate that there is an existing schedule for project planning activities. During the project-planning

meeting, minutes are taken and confirmed by the members present. The captured minutes guide actions deliberated and agreed during project planning minutes. The planning meetings are very important and missing such meetings amounts to penalties to members. Community involvement in planning aid in implementation of KCEP as it creates an avenue for planning and agrees on priority areas; helps get updates on what is happening and any emerging issues and gives all farmers an opportunity to directly participate. Others benefits included it is an avenue to share ideas, develops plans that fit to their situation, creates cohesion and establishment of new links for support among farmers and lastly enables the farmers to be organized. Participatory project planning was found to have a significant positive influence on implementation of Kenya Cereals Enhancement Programme.

Participatory project leadership was found to have a significant positive influence on implementation of Kenya Cereals Enhancement Programme. Community members participate in project management. This means that members of the community manage the cereals enhancement programme locally. There is an existing criterion on the selection of project management committee members as ascertained by the findings of the study. The findings of this study also indicate that community members participate in project capacity development meetings and in signing of MOUs stipulating roles and responsibilities of each party. Involving community members in project leadership creates an avenue to address the needs of the farmers by bridging the gap between the farmers and project management/technical teams; helps in timely conflict resolution and fosters acceptance of the project by the community members. Others emerging benefits from the themes are; easy to get support of the community to contribute their resources and motivate them to continue with the project without external support; it is an avenue to contribute in technical advice since they have better understanding of the local situation; it makes communication between farmers and project technical team more efficient and effective and it enhances capacity of the local leaders to mobilize for resources thus contributes to sustainability of the gain of the project beyond its life cycle.

Participatory monitoring and evaluation was found to have a significant positive influence on implementation of Kenya Cereals Enhancement Programme. The results indicate that the community members take part in the monitoring and evaluation of the cereals enhancement project by serving as survey respondents. The findings indicate that members of the community are aware

of some of the monitoring tools used for project monitoring. Community members are also aware of the project set goals for achievement. There is evidence that community members are employed in periodic project monitoring and evaluation exercises. This is as per the assertions of the responses from the project beneficiaries. There is an existing complaint and feedback mechanism in the cereal enhancement project and majority of the respondents agreed that the existing complaints and feedback mechanism is effective. Respondents agreed that there is an existing mechanism to address disputes in the poverty reduction through improved food security project and beneficiaries attested that the dispute resolution mechanism is effective. Lastly, the community is informed on the progress of the poverty reduction through improved food security project. Emerging from the views of farmers concerning the benefits of community involvement in monitoring and evaluation of projects include: boost of farmers' morale, increase in honesty and it is an avenue to consult on what is working for the fellow farmer for replication to own farm. Other benefits include improved yields, timely corrective measures, improved integrity of farmers and technical teams and enhancement of local capacity of mentoring each other.

Some of measures that can be done to improve on success of food security projects are conducting more training to the farmers on key topics like vegetable production, pest control, and timing of planting seasons; providing market linkage for farmers' farm produce, conducting frequent farm visits for mentorship and motivation. Other measures include organizing for regular review of project performance to inform future plans, re-evaluating beneficiary inclusion criteria especially in case of failed rains leading to total crop failure and organizing for field days, exchange visits to other farmers' groups or counties for learning and exposure. Finally, government policy was found to have a moderating effect on the relationship between community involvement and implementation of KCEP.

5.4 Recommendations

5.4.1 Participatory Project Identification

Though the study established that the community is involved in identification of community development projects in the region, participated in the start-up meetings for project needs identification and also in mapping out of project resources the study recommends more participation of the community in project identification by encouraging individual members to give their opinions on different projects. The project teams also need to use different

communication means to ensure that people are able to articulate their needs and wants. The study also proposes that project teams should use a variety of communication methods such as face-to-face interviews, community meetings, focus groups, bazaars, representatives, television and radio. Incorporating these methods would help the community articulate its needs and help the project team develop a better business case for the food security project.

5.4.2 Participatory Project Planning

To achieve maximum participation in the planning phase, to complete the food security projects successfully, the study recommends involvement of community residents in all planning activities including work sequencing, work scheduling, budgeting, staffing, and getting approvals from government agencies. Community involvement would enable the project team to take into consideration the residents' concerns thereby creating a demand-driven project. The completion of such a project would be guaranteed since it would have the trust and commitment of the community.

5.4.3 Participatory Project Leadership

The study recommends for more involvement of community members in project leadership as it fosters acceptance of the project by the community members. Local leaders contribute in technical advice since they have a better understanding of the local situation and can mobilize for resources thus contributing to sustainability of the gain of the project beyond its life cycle.

5.4.4 Participatory Monitoring and Evaluation

For optimum participation in the monitoring and evaluation phase and for successful project completion, the study proposes that participatory monitoring be encouraged as a way of gaining community support and ensuring the completion of food security projects. The researcher recommends that the decision makers should promote participatory monitoring by accepting feedback from the community and anticipating project issues that could come after it has been handed over. This tracking and control would help the project team deliver the desired product on time, cost, and with sufficient resources. Food security projects should involve the community when performing quality assurance tests, drafting progress reports, managing communications, reporting project risks and managing the schedule of the food security projects. The study also proposes that the research team should develop communication schedules to help the community follow up on the project and ensure that the execution conforms to the goals and interests of all the

stakeholders. This participation would create trust and encourage the people to commit to the completion and success of the project.

5.5 Suggestions for further study

The study recommends that a similar research be undertaken in another region/area overtime to see if they validate, support or contradict the findings of this particular study. The study focused on four community involvement components, which included participatory project identification participatory planning, participatory leadership and participatory monitoring and evaluation. The findings that these factors could not account for up to 23% of the variations in implementation of KCEP calls for future research to interrogate other possible community involvement ways. Future studies may consider other moderating variables other than government policy. Future studies may also undertake a comparative study using a different research methodology and model to see whether the results would be any different.

REFERENCES

- Barasa, F. &. (2013). Community Participation in Project Planning, Management and Implementation: Building the Foundation for Sustainable Development. *International Journal of Current Research*, 398-401.
- Bokea, D. (2012). *Factors Influencing Project Implementation of Community-based Projects: A Survey of Banana Projects in Kisii County*. Nairobi: Kenyatta University.
- Bond, R. &. (1998, 8 27). *Process Approach to Development*.
- Chambers, R. (1983). *Rural Development: Putting The Last First*. England: Longman.
- Creswel, J. (2012). *Research Methods: Qualitative, Quantitative and Mixed Methods Approach*. California: Sage Publication.
- Dindabo, M. (2003). *Development Theories, Participatory Approaches and Community Development*.
- FAO, E. &. (2019). *African Regional Overview of Food Security and Nutrition*. Accra: AUC
<https://doi.org/10.4060/CA7343 EN>.
- Farm, A. (1996). *Kondo Integrated Development Project Annual Report*.
- Freire, P. (1997). Acritical Dialogue with Paulo Freire Counterpoints: Studies in the Postmodern Theory of Education. In P. Freire, *Mentoring the Mentor*.
- Jackson, E. (2013). Interrogating the Theory of Change: Evaluating Impact of Investing Where It Matters Most. *Journal of Sustainable Finance & Investments*, 95-110.
- Kenya, R. o. (2010). *The Ministry of Planning, National Development and Vision 2030*. Nairobi: Government Printer.
- Kezia, W. &. (2017, July 01). *Economic Determinants of Household Food Security in Kyangwithya West Location of Kitui County*. Retrieved May 16, 2020, from Researchgate.net: www.researchjournal.com

- Kezia, W. F. (2017, August 26). *Environmental Determinants of Household Food Security in Kyangwithya West Location of Kitui County*. Retrieved May 16, 2020, from researchgate.net: DOI.10.12691/JFS-5-4-3
- Kimei, M. (2014). *Influence of Community Participation on Sustainability of Constituency Development Funds Projects in Tinderet Constituency, Nandi County*. Nairobi: University of Nairobi.
- Kirk, J. &. (1985). *Reliability and Validity in Qualitative Research*. ThousandOaks,CA.: Sage Publication.
- Klastorin, H. (2003, September 7). Monitoring and Evaluation of Adults Education and Adult Learning. *Paper Prepared for use at the Thematic Workshop on monitoring and evaluation of adult learning*.
- Krejcie, R. &. (1970). *Participatory Planning, Monitoring and Evaluation Training Manual*. Nairobi, Kenya.: International Fund for Agricultural Development.
- Kunwar, S. &. (2007). *Aspects of Project Planning, Monitoring and Evaluation and Improvement*. BishenSighn Dehra Dun MatNor, F. and Sulong.
- Maraga, J. O. (2011). Community Participation in the Project Cycle of Afforestation Projects in River Nyando Basin, Kenya. *International Journal Current Research*, 054-059.
- Martikainen, M. (2015). *The function of Community Leadership in Developing Innovative Energy at Grassroots in United Kingdom*.
- Mbindyo, D. (2013). *Influence of Relief Food on Food Security in Nguni Division of Mwingi East District, Kitui County Kenya*.
- Mbondi, P. &. (2008). *Participatory Planning, Monitoring and Evaluation Training Manual*. Nairobi, Kenya: International Funds for Agricultural Development.
- Mintzberg, H. &. (1998). *Monitoring and Evaluation of ICT in Education Projects: A Handbook for Developing Countries*. Washington, DC: World Bank.

- Mugenda, M. a. (2003). *Research Methods Quantitative and Qualitative Approach*. Nairobi: Acts Press.
- Mulwa, F. (2008). *Participatory Monitoring and Evaluation of Community Projects*. Nairobi, Kenya: Paulines Publication Africa.
- Mutembei, H. (June 2015 ISSN 1684 5374). Restoring Community Livelihoods and Food Security through Livestock Asset During Drought Disasters. A Case Study of Mwingi, Kenya. *African Journal of Food Agriculture Nutrition and Development Vol.15 No.3*.
- Nikki, S. (2008). *Participatory Methods Toolkit. Practitioner's Manual (2nd edition)*. Brussels: viWTA and King Baudoin Foundation.
- Njeru, K. (2018). *Participatory Project Management and Success of Upgrading Slum Projects: A Case of Korogocho Slums in Nairobi County, Kenya*.
- Nuttavithisit, K. (2014). Participatory Community Development. *Evidence from Thailand Community. Community Development Journal*, 50.
- Paul, S. (1987). Community Participation in Development Projects. *The World Bank Experience*, 68.
- Rugut, E. &. (2013). Reflections on Paulo Freire and Classroom Relevance. *America International Journal of Social Science*, 2(2), 2.
- Sherry, R. (2007). Ladder of Citizen Participation. *Journal of the American Institute of Planners vol 35 216* <https://doi.org/10.1080/01944366908977225>.
- Statistics, K. N. (March 2018). *Kenya Integrated Household Budget Survey 2015/2016*. Nairobi: KNBS ISBN.
- UNICEF. (Revised May 2003). Programme Policy and Procedures Manual. In UNICEF, *Programme Operations* (pp. 109-120). New York: UNICEF.
- Usadolo, S. &. (2016). *A Stakeholders Approach to Community Participation in the Rural Development Project*. Sage Open. <http://dx.doi.org/10.1177/2158244016638132>.

Webster, A. (1984). *Introduction to the Sociology of Development*. London: Macmillan Education.

Yabs, J. (2007). Strategic Management Practices in Kenya Application and Cases. *The World Bank Group* <http://go.worldbank.org/IFASVI7EC0>.

APPENDICES

Appendix 1: Letter of Transmittal

MARY MUENI KATUTO

P.O BOX 30197 NAIROBI.

NAIROBI, KENYA.

THE RESPONDENTS

KITUI COUNTY

KITUI.

Dear Madam/Sir

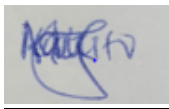
Ref No. L50/69974/2013

RE/REQUEST TO FILL THE QUESTIONNAIRE FOR RESEARCH

The purpose of this letter is to kindly request you to fill in the attached research questionnaire. I am a postgraduate student at the University of Nairobi taking a course in Project Planning and Management. Currently am doing research on the *Influence of Community Involvement on the Implementation of KCEP in Mwingi Central Sub-county, Kitui County*. The research is purely meant for academic purpose, however upon completion, the findings can be made public for use by other researchers and development decision-makers in informing the development of community programming and policies. The information you provide will be handled within ethical limits.

Thank you in advance for your cooperation.

Yours faithfully,



MARY MUENI KATUTO

UNIVERSITY OF NAIROBI

Appendix II: Questionnaire for the Farmers

Kindly provide the appropriate response to the following questions in the questionnaire. Please note that your name will not be written anywhere in the questionnaire.

SECTION A: Demographic Background

- 1. Sex Male Female

- 2. What is your current age range 18-29 30-40
41-51 52 and Beyond
Other Specify

- 3. What is your Marital Status Single Married Divorced
Widowed
Other specify

- 4. Highest level of education Never gone to school Primary Secondary
College/University

- 5. How many years have you lived in this locality? 0-5 yrs 6-10 yrs
11 yrs and above

- 6. Have you been doing farming in this area? If so please indicate which crops and how many years you have planted the crop.

SECTION B: Participatory Project Identification

- 7. Please through putting a tick(√) rate how much you agree with stated clauses on a scale of five to one:
'Strongly Agree (SA) =5'
'Agree (A) =4'
'Neutral (N) = 3'
'Disagree (D) = 2'
Strongly Disagree (SD) =1

Clause	5(SA)	4(A)	3(N)	2(D)	1(SD)
There is an existing criterion used in the identification of a community development projects					
The community participated in the start-up meeting for project needs identification					
Recording of community members attending the start-up meeting was done					
The identified community needs are being addressed through KCEP					
The community members participated in mapping out of resources for the project					
The community members participated in identifying the most deserving area to start the poverty reduction through improved food security project					
Other community members participated in the identification of the poverty reduction through improved food security project					
There is continuous project needs identification within the project					

8. Please indicate two ways through which involving community in identification of project affect implementation of food security project.

.....

.....

.....

SECTION C: Participatory Project Planning

9. Kindly through putting a tick (√) rate how you agree with stated clauses on a scale of five to one:

‘Strongly Agree (SA) =5’

‘Agree (A) =4’

‘Neutral (N) = 3’

‘Disagree (D) = 2’

‘Strongly Disagree (SD) = 1’

Clauses	5(SA)	4(A)	3(N)	2(D)	1(SD)
The community members participated in developing project plans					
The community members participated in the selection of the community-based committees					
Community participate in the selection of relevant business/collective projects					
There is an existing schedule for project planning activities					
During the project planning meeting minutes are taken and confirmed by the members present					
Minutes are taken by one of the community members (community committee members or delegated to an ordinal farmer.					
In case a member misses the planning meeting, she/he is penalized					
The captured minutes guide actions deliberated and agreed during project planning minutes.					

10. Please share two ways through which participatory project planning influence implementation of food security project.

.....

.....

.....

SECTION D: Participatory Leadership

11. Kindly through putting a tick (√) rate how much you agree with below stated clause on a scale of five to one:

‘Strongly Agree (SA) =5’

‘Agree (A) =4’

‘Neutral (N) = 3’

‘Disagree (D) = 2’

‘Strongly Disagree (SD) = 1’

Clauses	5(SA)	4(A)	3(N)	2(D)	1(SD)
There are community members who are members of the project management committee					
There is an existing criteria on the selection of project management committee members					
decisions are made on remedial measures/sanctions in case of misuse of the project					
Community members participate in project capacity development meetings					
Community participate in signing MOU stipulating roles and responsibilities of each party					

12. Please indicate two ways through which participatory project leadership influences implementation of food security project.

.....

.....

.....

SECTION E: Participatory Monitoring and Evaluation of the Project

13. Kindly through putting a tick (√) rate how much you agree with below stated clauses on a scale of five to one:

‘Strongly Agree (SA) =5’

‘Agree (A) =4’

‘Neutral (N) = 3’

‘Disagree (D) = 2’

‘Strongly Disagree (SD) = 1’

Clauses	5(SA)	4(A)	3(N)	2(D)	1(SD)
Community members take part in the monitoring and evaluation of the project by serving as survey respondents.					
Community members are aware of some of the monitoring tools used for project monitoring					
Community members are aware of the project set goals for achievement					
Community members are employed in periodic project monitoring and evaluation exercises					
There is an existing complaint and feedback mechanism in the project					
Complaint and feedback mechanism is effective					
There is an existing mechanism to address disputes in the poverty reduction through improved food security project					
Dispute resolution mechanism is effective					
The community is informed on the progress of the poverty reduction through improved food security project					

14. Please indicate two ways through which involving community in project monitoring and evaluation influence implementation of food security project.

.....

.....

SECTION F: Implementation of Kenya Cereal Enhancement Programme

15. Please through putting a tick(√) rate how much you agree with stated clauses on a scale of five to one:

‘Strongly Agree (SA) =5’

‘Agree (A) =4’

‘Neutral (N) = 3’

‘Disagree (D) = 2’

‘Strongly Disagree (SD) = 1’

Statements	5(SA)	4(A)	3(N)	2(D)	1(SD)
Project objectives were met					
There is improved living standards					
There is recorded growth					
There has been profitability					

16. Please indicate two things that can be done to improve on success of food security projects?

.....

.....

.....

.....

The End.

Your participation is appreciated.

Appendix III: Questionnaire for Community Committee Members

**Kindly provide the appropriate response to the following questions in the questionnaire.
Please note that your name will not be written anywhere in the questionnaire.**

SECTION A: Demographic Background

1. Sex Male Female

2. What is your current age range 18-29 30-40
41-51 52 and Beyond

Other Specify

3. What is your Marital Status Single Married Divorced
Widowed
Other specify

4. Highest level of education Never gone to school Primary Secondary

College/University

5. How many years have you lived in this locality? 0-5 yrs 6-10 yrs
11 yrs and above

6. Have you been doing farming in this area? If so please indicate which crops and how many years you have planted the crop.

7. What role do you play as a member of the community committee?

8. For how long(years) have you served in the same role?

9. How did you join the Community Committee?

SECTION B: Participation Project Identification

10. Kindly through putting a tick (√) rate how you agree with stated clauses on a scale of five to one:

‘Strongly Agree (SA) =5’

‘Agree (A) =4’

‘Neutral (N) = 3’

‘Disagree (D) = 2’

‘Strongly Disagree (SD) = 1’

Clause	5(SA)	4(A)	3(N)	2(D)	1(SD)
There is an existing criterion used in the identification of a community development project					
I participated in the start-up meeting at our community for project needs identification					
Recording of community members attending the start-up meeting was done(Confirm the availability of the list of attendance or minutes)					
The identified community needs are being addressed through KCEP					
I participated in mapping out of community resources for the project					
I participated in identifying the most deserving area to start the poverty reduction through improved food security project					
I am aware of other community members who participated in the identification of the poverty reduction through improved food security project					
There is continuous project needs identification within the project					

11. Please indicate two ways through which involving community in identification of project affect implementation of food security project.

.....

.....

.....

SECTION C: Participatory Project Planning

12. Kindly through putting a tick (√) rate how you agree with stated clauses on a scale of five to one:

‘Strongly Agree (SA) =5’

‘Agree (A) =4’

‘Neutral (N) = 3’

‘Disagree (D) = 2’

‘Strongly Disagree (SD) = 1’

Clauses	1(SD)	2(D)	3(N)	4(A)	5(SA)
I participated in developing project plans(Confirm the titles of some of the project plans in place)					
I participated in the selection of the community-based committee					
We participate in the selection of relevant business/collective projects					
I am aware of the existing schedule for project planning activities(Confirm availability of schedule for planning meetings either current or outdated)					
During the project planning meeting minutes are taken and confirmed by the members present(Confirm the presence of recorded minutes of deliberations of earlier project meetings)					

Minutes are taken by one of the community members (community committee members or delegated to an ordinal farmer.					
In case a member misses the planning meeting, she/he is penalized					
The captured minutes guide actions deliberated and agreed during project planning minutes.					

13. Please share two ways through which participatory project planning influence implementation of food security project.

.....

.....

.....

SECTION D: Community Participation in Leadership of the Project

14. Kindly through putting a tick (√) rate how you agree with stated clauses on a scale of five to one:

‘Strongly Agree (SA) =5’

‘Agree (A) =4’

‘Neutral (N) = 3’

‘Disagree (D) = 2’

‘Strongly Disagree (SD) = 1’

Clauses	5(SA)	4(A)	3(N)	2(D)	1(SD)
I know of community members who are members of the project management committee					
There are existing criteria on the selection of project management committee members					
We make decisions on remedial measures/sanctions in case of misuse of the project					

Community members participate in project capacity development meetings					
Community participate in signing MOU stipulating roles and responsibilities of each party					

15. Please indicate two ways through which participatory project leadership influences implementation of food security project.

.....

.....

SECTION E: Participatory Monitoring and Evaluation of The Project

16. Kindly through putting a tick (√) rate how you agree with stated clauses on a scale of five to one:

‘Strongly Agree (SA) =5’

‘Agree (A) =4’

‘Neutral (N) = 3’

‘Disagree (D) = 2’

‘Strong Disagree (SD) = 1’

Clauses	5(SA)	4(A)	3(N)	2(D)	1(SD)
Community members take part in the monitoring and evaluation of the project by serving as survey respondents.					
I am aware of some of the monitoring tools used for project monitoring					
I am aware of the project set goals for achievement					
Community members are employed in periodic project monitoring and evaluation exercises					
There are an existing complaint and feedback mechanism in the project					
Complaint and feedback mechanism is effective					
There is an existing mechanism to address disputes in the poverty reduction through improved food security project					

Dispute resolution mechanism is effective					
We are informed on the progress of the poverty reduction through improved food security project					

17. Please indicate two ways through which involving community in project monitoring and evaluation influence implementation of food security project.

.....

.....

.....

SECTION F: Implementation of Kenya Cereal Enhancement Programme

18. Please indicate the extent to which you agree with the following clauses about Kenya Cereal Enhancement Project on a scale of 5 to 1

‘Strongly Agree (SA) =5’

‘Agree (A) =4’

‘Neutral (N) = 3’

‘Disagree (D) = 2’

‘Strongly Disagree (SD) = 1’

Statements	5(SA)	4(A)	3(N)	2(D)	1(SD)
Project objectives were met					
There is improved living standards					
There is recorded growth					
There has been profitability					


19. Please indicate two things that can be done to improve on success of food security projects?

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

The End.

Your participation is appreciated.


Appendix IV: Research Permit



REPUBLIC OF KENYA

Ref No: 768907

RESEARCH LICENSE




This is to Certify that Ms. Mary Mueni Katutu of University of Nairobi, has been licensed to conduct research in Kitui on the topic: INFLUENCE OF COMMUNITY PARTICIPATORY APPROACH ON THE IMPLEMENTATION OF KENYA CROPS ENHANCEMENT PROJECT-CLIMATE RESILIENT AGRICULTURE LIVELIHOOD IN KITUI COUNTY: A CASE OF MWINGI CENTRAL SUB COUNTY for the period ending : 23May2021.

License No: NACOSTIP/20/5008

768907

Applicant Identification Number



Director General

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code



NOTE: This is a computer-generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is Guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

CONDITIONS

1. The License is valid for the proposed research, location and specified period
2. The License any rights thereunder are non-transferable
3. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies
5. The License does not give authority to transfer research materials
6. NACOSTI may monitor and evaluate the licensed research project
7. The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one of completion of the research
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice

National Commission for Science, Technology and Innovation
off Waiyaki Way, Upper Kabete,
P. O. Box 30623, 00100 Nairobi, KENYA
Land line: 020 4007000, 020 2241349, 020 3310571, 020 8001077
Mobile: 0713 788 787 / 0735 404 245
E-mail: dg@nacosti.go.ke / registry@nacosti.go.ke
Website: www.nacosti.go.ke