



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

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Abstract

The purpose of the study was to investigate the influence of community involvement on the implementation of the Kenya Cereals Enhancement 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 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.

Keywords: Community Involvement, Cereal Enhancement Programme, Project Identification, Participatory Planning, Participatory Leadership, Participatory Monitoring & Evaluation

INTRODUCTION

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 million 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 consequential 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 eight 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.

Kitui 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.

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, Kioli and Wanjala (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 (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.

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.

Limitations of the study

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 that the language used in the data collection questionnaire was simple and verbal translation to local language was done

by the researcher in course of the data collection. To overcome the challenge of providing untruthful information, the respondents were assured of confidentiality and anonymity during data collection thus any fears of victimization linked to the information they provide was arrayed.

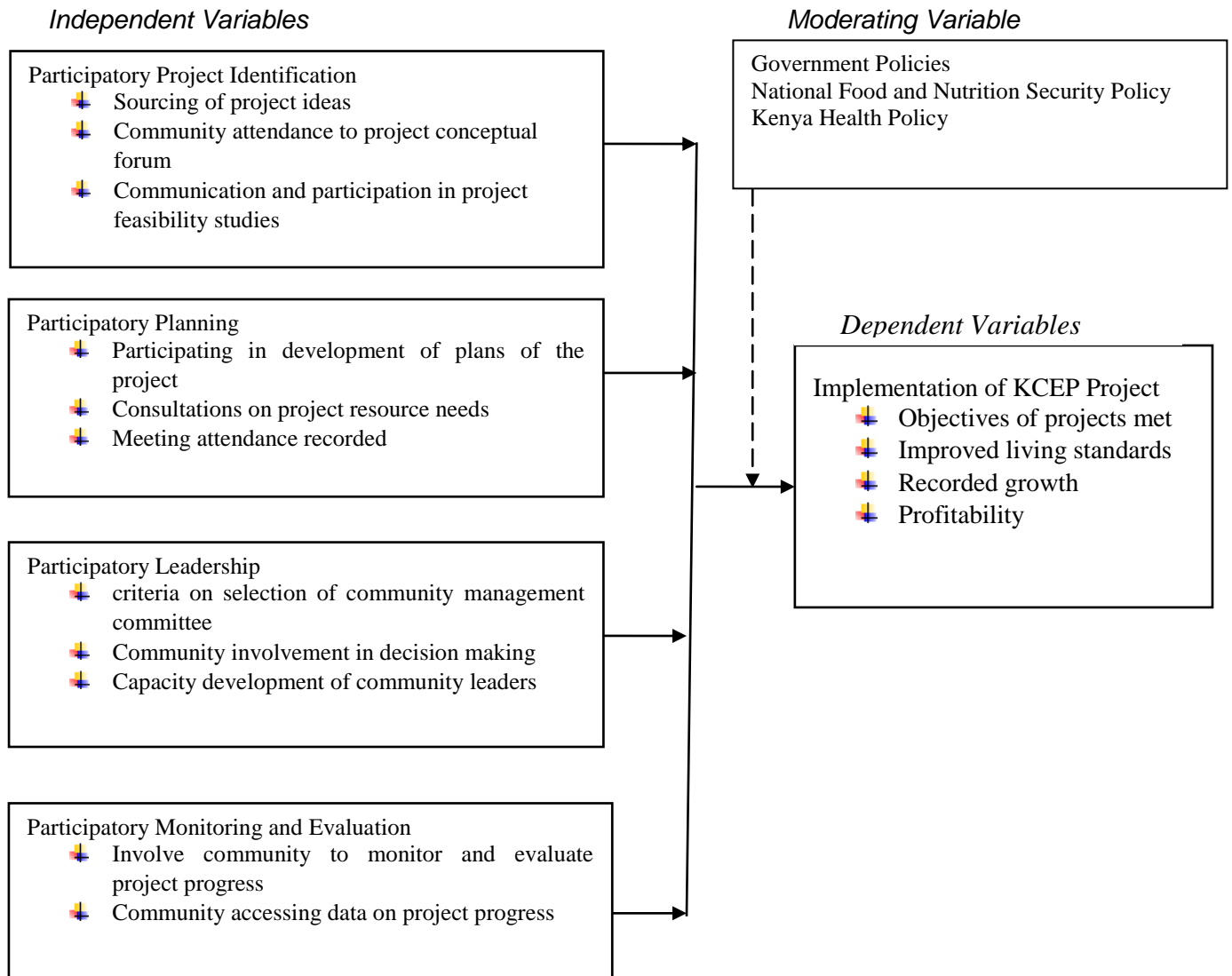


Figure 1: Conceptual Framework

METHODOLOGY

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. 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.

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.

Table 1: Sampling Frame

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

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. 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.

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. 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.

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. 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:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon \dots\dots\dots (1)$$

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)

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

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.

ANALYSIS AND DISCUSSION OF FINDINGS

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 2.

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 2: Response Rate

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

General Characteristics of the Study Sample

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 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 3: Gender Distribution

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

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 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: 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

Education Level of Respondents

The results of table 5 shows that majority of the respondents have completed 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 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

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 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 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

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 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

Descriptive Analysis

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.

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 8 below.

Table 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

Table 8...

From the results in Table 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."

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 9 below.

Table 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 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 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.

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 10 below.

Table 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.

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 11 below.”

Table 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

There is evidence that community members are involved in 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.

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 12 below.

Table 22: 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).

Qualitative analysis

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.

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

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.

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.

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 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 33: 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

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). Pearson correlation coefficients (r)

range from -1 to $+1$ (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 44: 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) N	.426** .000 108	.475** .001 108	1 108		
Participatory Monitoring and Evaluation	Pearson Correlation Sig. (2-tailed) N	.450** .001 108	.459** .003 108	.597** .000 108	1 108	
Implementation of KCEP	Pearson Correlation Sig. (2-tailed) N	.462** .001 108	.483** .000 108	.431** .002 108	.684** .000 108	1 108

** . 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 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 show 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.

Regression Analysis

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

β_1 , β_2 , β_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% 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 55: 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 66: 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 77: Regression coefficients

Model	Unstandardized Coefficients		Standardized	T	Sig.
	B	Std. Error	Coefficients 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 ($P\text{-value} < 0.05$) 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.

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.

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

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.

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 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 88: Summary Models Used to Test for the Moderating Effect

Model	R	R Square	Adjusted R Square	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 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 99: 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 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 2010: Coefficients for the Models Used to Test for Moderating Effect

Model	Unstandardized		Standardized		
	B	Std. Error	Beta	T	Sig.
(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.

CONCLUSIONS

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.

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.

RECOMMENDATIONS

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. 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.

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. 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.

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