

## **Influence of M&E Planning On Sustainability of Agricultural Food Crop Projects in Kenya: The Case of Nyeri County, Kenya**

**Ndagi James Mugo, Dr. Peter Keiyoro, Professors Mwangi Iribe  
And Charles Rambo**

*Department of Extra Mural Studies, University of Nairobi, KENYA*

---

**ABSTRACT:** *Many Kenyans live in poverty with most of these living in rural areas and deriving their livelihood directly from agriculture. Agriculture plays a dual role in the abolition of hunger as it enhances production of food and also serves as a source of employment that can provide families with a source of livelihood as well as providing raw materials for industries in the this sector and stimulating the formation of new industries. Agriculture, if improved can improve the income of the marginalized as it impacts on the whole economy, underlining the need for urgent revitalization of this sector. Monitoring and Evaluation are integral tools in managing and accessing efficiency and effectiveness of investments in agriculture sector and sustainability. In the recent times funders have increasing focused on the impact derived from implementations of projects. This study aimed at assessing the influence of M & E planning on sustainability of food crop projects. The study adopted descriptive survey design and correlation design and was undertaken in Nyeri South Sub-county, The target population were the Sub County agricultural officer in charge, and four other Sub County officers, four extension officers and 503 farmers in the agricultural food crops projects. Stratified random sampling was used to select the strata's that provided the respondents using Yamane's formula resulting in the selection of 211 respondents out of whom 206 completed the questionnaire. Simple random sampling was used to identify respondents from the various agriculture food crop projects using Neyman's formula. A census/saturated sampling was used in the case of the Sub County agricultural officer in charge, four other Sub County officers and four extension officers. The total number of respondents was 220 although one Sub County officer did not complete the interview schedule. Questionnaires and observations were the instruments used to collect data from the farmers and extension officers and interviews were used to collect the data from the Sub County officer in charge and the other 4 officers. The data was analyzed using both descriptive statistics and inferential statistics. Multiple Linear regression was used for hypotheses testing. Inferential statistics mainly made use of Pearson correlation tests, indicating the relationship between the main study variables .Relationship having a value of  $r=0.7$  and above was considered very strong and between 0.5 and 0.69 strong and between 0.3 and 0.49 reasonably strong and a value of  $r$  below 0.29 was considered weak, an indicator that there was no relationship at all. Statistical Package for Social Sciences (SPSS) was used in data analysis. Based on the study findings, the study has exhibited a positive and significant influence of M & E planning ( $\beta_1=0.223$ ,  $p<0.05$ ). Thus, the study concludes that with more M & E planning, Agricultural food crop projects sustainability will be enhanced. There is also need for planning on activities such as seedling and planting and joint agreement between farmers and officials on targets. Moreover, there is need for increased investment in M&E planning so as to enhance project sustainability*

**Key Words:** *Monitoring & Evaluation planning, Agricultural food crop projects sustainability*

---

### **I. INTRODUCTION**

The role and function of Monitoring and Evaluation in terms of perception may vary but its place as a key element of the project cycle in sustainability of agricultural agencies is incontrovertible. The EC's Project Cycle Management Guidelines, for example, emphasize the use of Monitoring and Evaluation planning for programming and project identification, as part of a structured process of feedback and institutional learning. IFAD places Monitoring and Evaluation at the heart of managing for impact, by which is meant the need to respond to changing circumstances and increased understanding, and managing adaptively so that the project is more likely to achieve its intended impacts. For the World Bank, Monitoring and Evaluation planning is designed to inform project management of whether implementation is going on as planned or corrective action is needed (Morris, 1999).

Although Monitoring and Evaluation planning are usually discussed in tandem, they serve distinct yet complementary functions. The role of monitoring planning is seen as one of regular and continuous tracking of inputs, outputs, outcomes, and impacts of development activities against targets and in the sustainability of agricultural projects. It determines whether adequate implementation progress has been made to achieve

outcomes, and provides management with information to enhance implementation. Unlike monitoring, evaluation establishes attribution and causality, and serves as a basis for accountability and learning by staff, management and clients. Information from evaluation is used to develop new directions, policies and procedures (IFAD, 2002).

Inadequate planning for data collection & use has been one of the many challenges in the World Bank project design and preparation with negative consequences for timely implementation, management and sustainability of projects as well as M & E incorporation (World Bank 2002). Monitoring & Evaluation planning may viably contribute to project decision making and learning Scheirer (2012), in turn this has a bearing on project sustainability.

Ensuring effective implementation of the project Monitoring and Evaluation system requires close monitoring by the government and the donor, through agreed project planning and supervision mechanisms (IFAD, 2002). Field visits can serve as a monitoring mechanism and should be planned for and can go a long way towards validating results.

In the words of Crawford and Bryce (2003), M & E planning enhances understanding of how project attainment will be measured and observation on how the management is functioning. It also enables detection of any problems early and enhances improvement in carrying out M & E activities. Planning should indicate what verifiable indicators will be measured and what will be the means of verification and who is responsible for collecting information. M & E when undertaken effectively and efficiently is likely to enhance the performance of a project leading to improved future planning which is key to sustainability (Nuguti, 2009).

Project sustainability especially the food crop project sector has been a great concern. For instance, according to IFAD (2009), 50 per cent of the projects evaluated in 2007 including in the agriculture sector were rated only moderately satisfactory in sustainability and 33 per cent were unsatisfactory.

Strenuous action across several policy domains must be initiated now to solve the future problems and there is substantial potential to increase global food production by promoting better use of existing skills, scientific knowledge and technology and Monitoring and Evaluation planning is critical in addressing this gap. There are questions to address regarding ways to stimulate greater innovation and risk-taking and hence planning. (Harkness., 2011).

An impact assessment on community-funded projects in Kiambu showed that only 5 out of 36 groups funded in 2007 by Njaa Marufuku Kenya (NMK) were partially active, while the rest had become defunct hence sustainable challenges (Wabwoba and Wakhungu 2013). There are no mechanisms that exist to ensure that recommendations of previous findings and reports, are referred to when solutions to current challenges, are being addressed in reference to M&E planning (Nyeri South Sub County. Agriculture office 2015) hence proper coordination is hindered in this case.

In Kenya the plant Health and inspectorate service (KEPHIS) is specifically mandated to facilitate policy enforcement and improvement in the farming sector. Its impact however has not been felt in the areas where agriculture activities are mainly carried out and especially because there is little collaboration and coordination with the ministry of agriculture officials and other stakeholders and constraints in personnel (Nyeri South Sub County Agricultural Office, 2015). Twenty one project groups are involved in production of various food crops in Nyeri South Sub County.

### **Statement of the Problem**

Each society globally requires food for existence and M and E planning plays a critical role in this regard facilitating sustainability of projects. Sustainability of projects is still a major challenge in many developing countries with many projects having challenges despite commitment of colossal resources especially in agriculture sector. The total acreage of the area on which food crops can be grown globally has declined due to rapid urbanization and therefore the need to redouble efforts in M&E planning. Therefore less land is used to produce food for an increasing population especially in developing countries such as Kenya. In Nyeri South Sub County land under food crop production totaled 7047.4 hectares and the income generated from this land was Kshs 690.74 m while coffee and tea cultivated on 5725 hectares had an income of Kshs 2258.9m. According to a Nyeri South Sub (2012) attainment of food crop production targets has not been realized despite this being a high potential area. Crop production deviation in Nyeri South Sub-county for the period 2010-2011 for maize and beans only totaled 41 500 bags. In addition, income and unit value for individual crops shows that there is high disparity (Nyeri South Sub-county Agriculture office 2015). Part of what would increase the yield is use of appropriate M & E planning of food projects activities by M & E oversight agencies.

Efforts have been made to improve food production by various stakeholders such as County Government of Nyeri and Ministry of Agriculture such initiatives include provision of fertilizers, provision of seeds for planting training of farmers however this work has not been done systematically and effectively as such there is need to establish the extent to which M&E planning can help in mitigating this challenge so as to influence sustainability (Nyeri South Sub County Agricultural office 2015).

**Purpose of the Study**

The study aimed at establishing how Monitoring and Evaluation planning influences sustainability of agricultural food crop project in Nyeri South District.

**Objectives of the Study**

The specific objective of this study was to examine:-

How M & E planning influence sustainability of Agricultural food crop projects

**Research Questions**

How does M & E planning influence sustainability of agriculture food crop projects?

**Research Hypotheses**

H<sub>1</sub>: M & E planning influences sustainability of agricultural food crop projects

**II. RESEARCH METHODOLOGY**

**Research Paradigm**

The paradigm that guided the study was pragmatism. Johnson and Onwuegbuzie.(2004) noted that pragmatism paradigm is the best suited for mixed methods research approach stating that mixed methods research is an approach whose time has come. The pragmatist paradigm accommodates both the positivist and constructivist philosophies (Morgan 2007). This paradigm contends that people or phenomena cannot be analyzed in such an objective way because the researcher, context and social reality affects research outcomes.

**Research Design**

A Mixed model comprising descriptive survey design and correlation research design was used in this study, the choice being informed by the fact that descriptive and inferential data analysis was required in this study. Through use of mixed mode research approach, qualitative and quantitative data analysis was carried out at the same time.

**III. DATA ANALYSIS, PRESENTATION AND INTERPRETATION**

**Monitoring & Evaluation planning and sustainability of agricultural food crop projects**

The study sought establish the view of the farmers, extension officers and Sub County agricultural officer in charge and other officers regarding Monitoring & Evaluation capacity building which had items measured on a 5-point Likert scale. The respondents were asked to indicate their level of agreement or disagreement with respect to capacity building by ticking 1-5 for strongly disagree (SD), disagree (D), not sure (NS), agree (A) and strongly agree(SA), respectively.

**Monitoring & Evaluation planning response by farmers**

It is worth noting that Monitoring & Evaluation planning especially from the perspective of the farmers is important and provides avenues or platforms for sharing and interchanging information, clarifying, stimulating and seeking the best solutions regarding sustainability of agricultural food crop projects. The views of the farmers regarding aspects of Monitoring & Evaluation planning were assessed and the results presented in table 1 below.

**Table 1: Monitoring & Evaluation Planning (Response by Farmers)**

		SD	D	NS	A	SA	Mean	Std. Deviation
Planning before conducting Monitoring & Evaluation is undertaken	Freq.	54	99	34	9	10	2.12	0.995
	%	26.2	48.1	16.5	4.4	4.9		
Planning influences sustainability of food crop sustainability	Freq.	26	80	29	16	55	2.97	1.433
	%	12.6	38.8	14.1	7.8	26.7		
Field visits are conducted to check on Monitoring & Evaluation	Freq.	25	119	34	23	5	2.33	0.9
	%	12.1	57.8	16.5	11.2	2.4		
Indicator formulation is done during the planning process	Freq.	19	135	28	14	10	2.33	0.914
	%	9.2	65.5	13.6	6.8	4.9		
The indicators are reviewed in case of need	Freq.	24	120	33	22	7	2.36	0.941
	%	11.7	58.3	16	10.7	3.4		
The indicators review involves other stakeholders	Freq.	33	126	25	17	5	2.2	0.891
	%	16	61.2	12.1	8.3	2.4		
Jointly agreed targets are set between officials and farmers exist	Freq.	18	131	19	29	8	2.66	1.712
	%	8.7	63.6	9.2	14.6	3.9		
Indicator review as it is currently influences food crop sustainability	Freq.	30	145	16	9	6	2.11	0.807
	%	14.6	70.4	7.8	4.4	2.9		

From the results in table 1, majority of the farmers were of the view that M&E planning meetings are not normally held (mean = 2.12, SD = 0.995) although 10 of individual farmers were of the opinion that the meetings are held implying that in some areas the meetings are held. These findings contradicted the views of the Sub-County agriculture officers who stated that they held meetings every four months. These findings indicated that although there are meetings held between the sub-county agriculture officers and the farmers, they were not enough according to the views of the farmers or the meetings were not held throughout the Sub County or do not adequately handle planning. However according to the sub-county agricultural officers, there were meetings held in which Monitoring & Evaluation planning was discussed. In the meetings, Monitoring & Evaluation planning is discussed. One of the officers interviewed even stated that:

*Issues of Monitoring and Evaluation are mentioned in our weekly meetings (Personal Communication, Sub-County Agriculture Officer 1).*

These findings also show that Monitoring & Evaluation planning meetings specifically were not given priority but were only included in records with little input from the relevant stakeholders and this might be the reason why the farmers stated that the planning meetings are not held severally. Based on these findings, it is thus a challenge to communicate and share project information in Monitoring & Evaluation amongst the farmers and the sub-county agriculture officers. As a result, these meetings may not serve as a feedback forum between the supervisors, frontline extension workers and farmers. These findings are contrary to the views of Beggs (2015) that extension officers need to be committed in visiting and interacting with farmers regularly for the opportunity to hear from farmers regarding policy and advocacy work carried out on their behalf.

In addition, though planning is of essence in both decision-making and policy making, a significant number of respondents were not sure if planning as it is currently undertaken influences sustainability of agricultural food crops (mean = 2.97, SD = 1.433) although a significant number 55 a percentage of 26.7% were of the opinion that this is the case. However the opinion by the majority could be probably because most of the farmers in groups, with the exception of officials, do not actively participate in planning activities. It is, therefore, a challenge for them to fully ascertain the role that planning plays in the sustainability of food crops. In addition, this might be attributed to a lack of participation in the decision-making on agricultural policies at various levels contributing hindering progress in the agricultural sector. Normally, lack of ownership, capital, skills, knowledge and resources constrain the ability of communities to fully understand and embrace the importance of planning in agriculture sector and its antecedent impact on sustainability (Scheyvens, 2003).

Planning enables a careful examination of the existing resources and their best allocation and impacts on sustainability. It helps farmers to make decisions in relation to selection of crops and acreage to cultivate different crops. This also helps the farmer to identify the input and credit needs. It helps in estimating future cost and returns and coming up with the most appropriate strategies for farmers to embrace and all this is critical to sustainability.

From the results, farmers also indicated that field visits were mainly not conducted to check on M& E (mean = 2.33, SD = 0.900). There were limited field visits and face-to-face meetings with the farmers with only 28 farmers answering in the affirmative representing 14.6% of the farmers. Since field visits were not conducted as often as they should be, monitoring of the projects becomes difficult. Also, it is a challenge to enhance experience sharing among the members thus impeding the realization of sustainability. Field visits are an important part of informal education. They help farmers to explore their environment and establish links regarding the information learnt from extension officers and practical farming. Field visits enable extension staff to provide further advice regarding farm preparation and planting and related activities.

*The opportunity to evaluate the efficiency of visits to farmers was provided through written trip reports made by extension staff and transcribed and translated recordings of conversations with farmers (Personal Communication, Sub-County Officer 1).*

Majority of the farmers were also of the view that formulation of indicators is not undertaken during the planning process (mean = 2.33, SD = 0.914) with only 24 farmer or 11.7% accepting that formulation is undertaken during the planning process. Failure to undertake formulation of indicators is a critical omission whose ramifications can be dire. In addition to this, majority of the farmers also indicated that indicators are not reviewed (mean = 2.36, SD = 0.941) but 29 or 14.1% indicated that indicators were reviewed. The review of indicators is necessary to ensure that change being dynamic is constantly considered and requisite adjustments done. In the case of the indicators review other stakeholders were not involved (mean = 2.20, SD = 0.891) but 22% or 10.7% of the farmers indicated that other stakeholders were involved. The engagement of other service providers is critical in ensuring information provided to farmers is not ambiguous. Regarding indicator review as it is influencing food crop sustainability majority of the farmers or 84.6% felt this is not the case (mean = 2.11, SD = 0.807) with only 7.3% indicating that indicator review as it influences sustainability. This is related to the fact that when choosing indicators, the starting point should be to ask: "Is this proposed indicator measurable?" This helps considerably in the quest to identifying a minimum list that does not require complicated Monitoring & Evaluation structures.



The actual selection of indicators should be a reflective and participative activity involving the key stakeholders who are most intimately associated with the project design and implementation not an imposition of indicators from outside. This is incongruous to the sentiments of the Sub-County Agriculture Officers who indicated that:

*For project indicators most of them are developed during project inception and they come as a package with the project (Sub-County Agriculture Officer 1).*

*From the officer who uses them to suit the situations since Sub County lack initiative and each county is unique , Sub-County Agriculture Officer 2).*

The researcher asked the Sub County officers if the indicators were developed by the county government or ministry of agriculture, fisheries and cooperatives. Regarding this issue the response was:

*This year sub county offices were not involved due to resources constraints and also county government wanted to have this done immediately (Sub-County Agriculture Officer 4).*

*Yes, at times it is mostly done by the Monitoring and Evaluation units (Sub-County Agriculture Officer 2).*

Further, farmers were unsure over whether or not jointly agreed targets are set between officials and farmers (mean = 2.66 SD = 1.712) however 37 farmers or 18.5% indicated that they are involved in the process of coming up with indicators. It is possible there is a communication breakdown between the farmers and officials and lack of clarity concerning the mode this involvement takes. This makes it difficult for the farmers to ascertain whether or not there are jointly agreed targets with the officials.

### **M&E planning response by extension officers**

The research sought to understand the nature and level of Monitoring & Evaluation planning from the perspective of the extension officers. The findings were as presented in Table 2.

**Table 2: Monitoring & Evaluation Planning (Response by Extension Offices)**

		SD	D	NS	A	SA	Mean	Std. Deviation
Planning to conduct Monitoring & Evaluation is undertaken	Freq.	3	1	0	0	0	2	0
	%	75	25	0	0	0		
Planning provides for field visits	Freq.	2	1	1	1	0	1.5	0.577
	%	50	25	25	25	0		
Field visits are conducted to check on Monitoring & Evaluation	Freq.	3	0	0	1	0	2.75	0.957
	%	75	0	0	25	0		
Planning for data collection is adequate	Freq.	2	1	0	1	0	2.5	1
	%	50	25	0	25	0		
Planning & coordination influences sustainability of food crop projects	Freq.	3	1	0	1	0	1.75	0.5
	%	75	25	0	25	0		
indicator formulation is done during the planning process	Freq.	2	0	0	2	0	1.75	0.5
	%	50	0	0	25	0		
The indicators are reviewed	Freq.	1	0	3	0	0	2	0
	%	25	0	75	0	0		
The indicators review involves other stakeholders	Freq.	3	0	0	0	1	1.75	0.5
	%	75	0	0	0	25		

From the study results in table 2, majority of the extension officers indicated that planning to conduct Monitoring & Evaluation was not undertaken (mean = 2.00, SD = 0.000) 1 extension officer indicated that planning to conduct M&E is undertaken. These findings conform to the view of the farmers in terms of Monitoring & Evaluation planning. Due to inadequate planning, determining when an agricultural food crop project is on track and when changes are required posits a challenge. The fact that 1 extension officer had views contrary to the rest means that some elements of planning to conduct M&E exist. Most likely the planning undertaken is not well streamlined especially given that the officer strongly agreed with this perspective. The results also indicated that planning did not provide for field visits (mean = 1.5, SD = 0.577) with 1 officer indicating that field visits are carried out and another officer not sure indicating lack of clearly streamlined structures. Field visits are supposed to provide an opportunity for extension officers to monitor the way farming activities are undertaken with a view of taking corrective measures as the need arises. The visiting officers are supposed to compile reports on the basis of which resources availed by the government and other organizations can be disbursed as well as facilitating surveillance concerning activities of groups and establish whether there are signs of trouble regarding these groups.. Farmers are, therefore, unable to learn from their experience and improve future interventions since their progress is not adequately monitored.

This finding also confirms that the majority view of the farmers was that Monitoring & Evaluation field visits are not undertaken regularly during the year. In addition to this, majority of the extension officers were not sure whether field visits are conducted to check on Monitoring & Evaluation (mean = 2.75, SD = 0.957) with 3 Or 75% strongly disagreeing and only 1or 25% have a contrary opinion. This implies that feedback on the level of performance of the farmers within defined periods is not known to both the farmers and the extension officers. Due to this, farmers are unable to reflect upon and share experiences and lessons with a view of gaining the full benefit accruing from agricultural food crops projects interactions.

In addition, Sub County officers indicated that extension officers were expected to undertake eight field trips per year but were not facilitated in execution of this task. These involve visiting farmers’ groups and progressive farmers within the extension officer’s ward who serve as models and a challenge to smaller growers. Extension officers’ conduct regular farm visits to the farmers involved in farmers’ groups, giving encouragement, establishing close working relationship and identifying the problems faced and prescribing the requisite remedies but mainly only when facilitated.

Furthermore, half of the extension officers (mean = 1.75, SD = 1.000) indicated that coming up with indicator formulation is not done during the planning process and 2 offices or 50% indicating that this exercise is carried out meaning the modus operandi of the extension officers could be at variance and needs moderation. In the case of indicator 3 Of the extension officers were not sure (mean = 2.00, SD = 0.000) and one officer strongly disagreed. As to whether that whether planning for data collection is adequate majority of them were not sure (mean = 2.50, SD = 1.000) with only 1 officer or 25% holding a contrary view. This again confirms the finding that there was inadequate field visits conducted to check on Monitoring & Evaluation confirming the views of farmers. As such, determining whether or not the projects’ efforts had had a measurable impact on expected outcome and whether or not they had been implemented effectively is a challenge. This is because there is doubt over whether or not planning for data collection, a major part in Monitoring & Evaluation planning is undertaken prior to and during the creation of the strategic plan and continues on throughout the implementation and monitoring phases of the project.

Nonetheless, extension officers indicated that planning did not influence sustainability of food crop projects (mean = 1.75, SD = 0.5 with 1 officer or 25% holding a contrary opinion. Extension officers held the view that most aspects of the project were not adequately planned for. Particularly, there was no adequate planning to conduct data collection (mean=2.5, SD=1). Due to this, extension officers indicated that planning did not mainly influence sustainability of food crop projects. It is important to develop detailed plans for data collection as part of the M&E planning process.

**Hypothesis testing of Monitoring & Evaluation planning**

Based on the results on the nature of Monitoring & Evaluation planning, the study sought to test the null hypothesis that states that Monitoring & Evaluation planning significantly influence sustainability of agricultural food crop projects. The p- value computed was assessed against a level of significance value of 0.05. Multiple regression results were presented in table 3.

**Table 3: Hypothesis testing of Monitoring & Evaluation planning**

	Unstandardized Coefficients		Standardized Coefficients			Correlations		
	B	Std. Error	Beta	T	Sig.	Zero-order	Partial	Part
(Constant)	1.401	0.141		9.956	0.0			
Monitoring & Evaluation Planning	0.424	0.057	0.459	7.383	0.0	0.459	0.459	0.459
R Square	0.211							
Adjusted R Square	0.207							
F	54.513							
Sig.	.000							
a Dependent Variable: Sustainability								

The findings showed that Monitoring & Evaluation planning had coefficients of estimate which was significant basing on  $\beta_1 = 0.459$  (p-value = 0.0 which is less than  $\alpha = 0.05$ ). The hypothesis was thus accepted and it was concluded that M&E planning had a significant effect on sustainability of agricultural food crop project. This suggested that there was up to 0.223 unit increase in sustainability of agricultural food crop project for each unit increase in Monitoring & Evaluation planning. The effect of Monitoring & Evaluation planning was more than 3 times the effect attributed to the error, this was indicated by the t-test value = 3.12. These findings indicate that for planning of Monitoring & Evaluation activities, to be carried out effectively it would involve the concerted efforts from the ministry with active involvement of the farmers as well as other stakeholders because the findings have shown that failing to involve them in planning process would has a negative effect as claim of ownership becomes shaky. This means that the ministry should embrace the contribution of the farmers

as well as other stakeholders in order to have the actual needs of the farmers actually included in the planning process.

#### **IV. SUMMARY OF THE FINDINGS**

##### **Monitoring & Evaluation Planning and Sustainability of Agricultural Food Crop Projects**

From the findings Monitoring & Evaluation planning meetings or field visits are not conducted regularly implying that it might be a challenge to enhance experience sharing among the farmers hence hindering monitoring and realization of sustainability of food crop projects. In support of this, the theories chosen for this study and especially the theory of change implied that the inputs should reflect the transformational change among the members. The involvement of the members is critical in monitoring and evaluation. The outcomes can be measured by effectiveness and efficiency of the members through the high levels of agricultural food crop production. The members may also resist radical change and that is why this study was carried out to offer useful solutions on how planning influences monitoring and evaluation in project sustainability.

The results also showed that majority of the respondents pointed out that indicators are not reviewed in case of need and indicator review does not influence sustainability of food crop projects. There was uncertainty with respect to whether or not jointly agreed targets are set between officials and farmers. From the foregoing, much has not been done with regard to Monitoring & Evaluation planning. This means that it might be a challenge to detect problems early and enhancing improvement in carrying out Monitoring & Evaluation activities or reference to previous methods used in undertaking M&E which further implies that mistakes of previous years continue unabated.

Agricultural Extension Officers communicate with farmers to support decision-making by providing information on sustainable farming practices. The absence of a link between farmers and officers might deny farmers' knowledge, information; experiences and technologies required to boost productivity and sustainability. Besides, since planning was not fully embraced, monitoring was a challenge hence it was hard to establish whether targets were set between the two parties (farmers and officials). The theory of change contributed to several indicators in the planning level, like monitoring and evaluation meetings for stakeholders, training seminars for the farmers, field visits and use of available resources relevant to the utilitarian theory and this is critical to enhancement of sustainability. This research study used integrated approach of the three theories.

From the findings of the study the theory of social change advocated for community mobilization and more so empowering the marginalized people. The members' participation in decision making with a view of empowering them can contribute to improved livelihood. This contributes to ownership of the decisions made and it makes work easy for the groups at the implementation level. The groups were in a position to cooperate although it was very challenging to mitigate poor planning leading to lack of meeting and lack of clearly set targets in the strategic plans.

This might be related to common practice in planning hitherto practiced by government extension agencies in deciding on which extension programmes to carry out without reference to stakeholders, its beneficiaries and even when and where to deliver the Monitoring & Evaluation services. Lack of effective planning might lead to poor sustainability of food productions as indicated by the World Bank (2012) who contend that the success of rural development projects and programmes has been shown to depend largely on direct stakeholder involvement in planning, implementation and evaluation. It has been shown that Monitoring & Evaluation planning has a significant and positive effect on the sustainability of food crop projects. The findings showed that with each unit increase in Monitoring & Evaluation planning there was up to 0.223 unit increase in sustainability of agricultural food crop project for each unit increase in Monitoring & Evaluation planning.

Furthermore, the results are similar to those of Khan (2003) who indicates that M& E activities enhance experience sharing and cohesiveness thus resulting in the realization of sustainability. Consistently, Nuguti (2009) posits that when Monitoring & Evaluation is undertaken effectively and efficiently, it is likely to enhance the performance of a project leading to improved future planning, delivery of service and better decision-making for sustainability. Further, Crawford and Bryce (2003) note that Monitoring & Evaluation planning enhances understanding of how project attainment will be measured and how the management is functioning. In this way, project sustainability is enhanced. Wabwoba and Wakhungu (2013), in a study on projects in Kiambu County, Kenya, infer that group members should be actively engaged in M&E project planning and implementation for purposes of ownership and sustainability.

## V. CONCLUSION

Based on the study findings, it is safe to conclude that Monitoring & Evaluation planning contributes significantly to the sustainability of agricultural food crop projects. Despite this, much has not been done with respect to M&E planning. To start off, meetings and field visits are not conducted as often as envisaged. As such, monitoring is a challenge and farmers are unable to share their experiences so as to facilitate the sustainability of agricultural food crop projects. Concerning planning, activities such as seedling and planting activities are not adequately catered for. The situation is further compounded by inability of officials and farmers to jointly agree on targets. It is thus a challenge to attain project sustainability.

## VI. RECOMMENDATIONS OF THE STUDY

- a) That Monitoring and Evaluation planning be undertaken effectively, efficiently and with inclusivity so as to enhance the performance of projects and better decision-making for sustainability.
- b) That field visits need to be frequent since they act as monitoring mechanism for the project and the antecedent reports compiled and acted upon.
- c) Meetings involve farmers and other stakeholders should be held frequently so that a healthy exchange of ideas on effective planning and ways and sustainability of agricultural food crop projects is undertaken.
- d) There is also need for looking for ways and means of undertaking joint planning in activities, such as selection of seedlings and planting as well as joint agreement between farmers and officials on targets. In so doing, Monitoring & Evaluation planning can contribute effectively and efficiently to the sustainability of agricultural food crop projects.
- e) Studies should be carried regarding the influence of M&E planning on sustainability of agricultural projects.
- f) There is need for a study to establish whether the challenges noted have been occasioned by the transition in the regulation and control from the national government to the county government following promulgation of a new constitution in Kenya in 2010.

## REFERENCES

- [1]. Beggs, D.S., Fisher, A.D.,& Jongman, P.H.,& Hemsforth, E.C. (2010). A survey of Australian dairy farmers to investigate animal welfare risks associated with increasing scale of production. *Animal Welfare Science Centre, Faculty of Veterinary and Agricultural Sciences*. University of Melbourne
- [2]. Crawford, P. and Bryce, P. (2003). Project Monitoring and Evaluation: a method for enhancing the efficiency and effectiveness of aid project implementation. *International Journal of Project Management*, pp. 363-373
- [3]. Harkness Jim (2011). The 2050 challenge to our global food system. Institute for Agriculture and Trade Policy Commentary National Food Policy Conference, Organized by Consumers Federation of America Washington, D.C.
- [4]. IFAD, (2009). *Strategic Framework 2007-2010. Enabling the rural poor to overcome poverty*. Rome: IFAD
- [5]. IFAD.2002a. Practical Guide on Monitoring and Evaluation of Rural Development Projects.
- [6]. Johnson R. B, and Onwuegbuzie A, J. (2004). Mixed Methods Research: A Research Paradigm whose time has come.
- [7]. Khan, M. A. (2010). *Agricultural Census 2010. Pakistan report*. Lahore: government of Pakistan
- [8]. Morgan D, L., (2007), Paradigms Lost and Pragmatism Regained; Methodological Implications of Combining Quantitative and Qualitative Methods *Journal of Mixed Methods Research Volume. 1, No 1, 48-76*.
- [9]. Nuguti, (2009). *Understanding, Project Monitoring & Evaluation*. Ekon publishers, Nairobi, Kenya.
- [10]. Scheirer, M. A.(2012). Planning Evaluation Through the program life Cycle. *American Journal of Evaluation*, 33(2), 263-294. doi:10.1177/109821401143609
- [11]. Scheyvens, R. (2000). Promoting women's empowerment through involvement in ecotourism: Experiences from the third world. *Journal of Sustainable Tourism*. 8(3), 232-249
- [12]. Wabwoba ,M. S. N and Wakhungu, J. W (2013) Factors affecting sustainability of community food security projects in Kiambu County, Kenya *Agriculture & Food Security, Agriculture & Food Security* 2013, 2:9 <http://www.agricultureandfoodsecurity.com/content/2/1/9>
- [13]. Yamane, Taro (1967). *Statistics: An Introductory Analysis*, 2<sup>nd</sup> Ed. New York: Harper and Row.