

## THE RELATIONSHIP BETWEEN M&E DATA DEMAND AND USE AND SUSTAINABILITY OF AGRICULTURAL FOOD CROP PROJECTS IN KENYA: THE CASE OF NYERI COUNTY, KENYA

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### 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. Being the world's single largest employer agriculture, if improved can improve the income of the marginalized. The performance of agriculture impacts on the whole economy, underlining the need for urgent revitalization of this sector. Data Use and Demand is an integral tool in managing and accessing efficiency and effectiveness of investments in agriculture sector and sustainability. In the recent times funders and development partners have increasing focused on the impact derived from implementations of project. This study aimed at assessing the influence of M & E Data Use.. The study adopted descriptive survey and correlation design and was undertaken in Nyeri South Sub-county, The target population were the Sub County agricultural officer, and four Sub County officers, four extension officers and 503 farmers in the agriculture food crops project. Among the 211 farmers 206 completed the questionnaires. Stratified random sampling was used to select the strata's that provided the respondents using Yamane's formula. Simple random sampling was used to identify respondents from the various agriculture food crop projects and a census/saturated sampling was used in the case of the Sub County agricultural officer in charge and other four other Sub County officers and four extension officers. Questionnaires, observation data from the farmers and extension officers and interview guides were used to collect information from the Sub County agricultural officer, and four Sub County officers. The data was analyzed using both descriptive statistics and inferential statistics. Multiple Linear regression was used for hypotheses testing. Pearson correlation tests were conducted to indicate 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 and 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 data use ( $\beta_3=0.155$ ,  $p<0.05$ ) on sustainability of Agricultural food crop projects. Thus, the study concludes that with more data use of Agricultural food crop projects will be enhanced.. Moreover, there is need for increased investment in facilitating data demand and use so as to enhance project sustainability.*

**Keywords:** data demand, data use, project sustainability.

### INTRODUCTION

Mackay (2007) noted that a problem in African countries and perhaps in other regions is that although sector ministries collect a range of performance information the quality of data is often poor. Ibrahim (2007) noted in African countries there is too much data and not enough

information. In some regions including Africa, sector ministries collect a range of performance data whose quality is often poor and hence not possible to use. According to Kuzek & Rist (2004) some developing countries collect a lot of data that cannot be put to use. Lack of clarity concerning the end users leads to collection of excessive data, which does not help (Guijt, 1999). In Kenya, Odhiambo (2000) noted that, evaluations are yet to reach any acceptable level of operation dealing basically with only some aspects of the result chain namely inputs & outputs at the expense of impact, while being propelled by activist and donor demands and carried out by evaluators devoid of the requisite knowledge.

M & E data provides a basis of feeding back into the projects improving policy analysis and policy development and aiding in project activities, managerial activities and this enhances transparency, surveillance and project sustainability. Capacity building can bridge the gap between planning and data demand and use, if officials and indeed farmers are deficient in capacity this will ultimately impact on sustainability. M & E system should be demand driven and not supply driven for it to be useful. Making use of M & E results is a major determinant of project sustainability and it results from good planning, project implementation based on availability of capacity and informed decision based on sound and relevant data (Mackay, 2007).

Without access to accurate and timely data information, it is difficult if not impossible to manage an activity, project or program effectively in reference to youth projects in Kenya as cited in (Karanja 2013). The translation of new science and knowledge into applications in the field is often a lengthy and uncertain process and requires investment so as to plan for future needs Harkness (2011) and Monitoring and Evaluation data demand & use is critical in addressing this gap. In demand and use of data there is need to focus on the following; documentation of old information and recent information; uses of data; need for data-which needs it; data accuracy and relevance. M& E systems should be demand driven and not supply driven, to facilitate sustainability Mackay (2007). M & E demand and use is a significant practice in M & E and needs to focus on target groups (Segone 2008).

Sustainability is a critical challenge for all international development agencies and also one of the principles of engagement central to IFAD's identity and role. The IFAD Strategic Framework 2007-2010 noted that sustainability was one of IFAD's key concerns. Despite significant improvements in the sustainability of IFAD operations, especially over two years, this issue remains a major challenge IFAD (2009).

According to FAO, (2004) experience suggests that adopting a more informal participatory approach to data collection, rather than sole reliance on formal surveys, avoids the primary stakeholders being only superficially involved and can dramatically increase the ownership in the project and the Monitoring and Evaluation system. For many countries, the reality is an absence of real demand for M & E information, and this can seem to be an impossible hurdle. There is need for building of reliable ministry data systems to provide the primary data on which M & E systems will depend on (Mackay, 2007). Few government officials will have been trained in modern data collection and monitoring methods and even fewer have been trained on how to interpret different modalities of data (Kusek & Rist 2004). A solution in this case is possible through auditing data systems and diagnosing data capacities as well as expertise involvement in conducting surveys and censuses, and also managing data.

Sound systems for data demand and use can help in improving performance as more and more governments in developing countries are beginning to understand (Mackay, 2007). The primary purpose of M & E data demand is to support management in making timely and effective decisions for planning, monitoring, and managing the project. The baseline is the first critical measurement of the performance indicators and is used as a starting point, or

guide, by which to monitor future performance of projects or programs Kusek and Rist (2004). Therefore, baseline data should be collected at least for each identified outcome indicator. Because the success of a project will be, in part, be measured by comparing target values with achieved or actual values, setting target values is a sensitive issue and should be taken seriously.

In Kenya twenty one project groups were involved in production of various food crops in Nyeri South Sub County. Without the required skills in data demand and collection the ministry of Agriculture officials' cannot be drivers of change so as to facilitate bridging of gap between actual productions and maximum production possible, capacity (Nyeri South Sub County Agriculture office 2015).

### **Statement of the Problem**

Monitoring & Evaluation as a tool monitors what is happening providing feedback in form of data that can be used to improve food crop projects as data utilization is central in this. There is need to assess influence of M & E data demand & use a critical element in sustainability of food crop projects. The importance of M & E information is such that it justifies the need to be ethical in undertaking this exercise hence ethics was a moderator in the study.

Data on the progressive performance of agriculture in selected countries globally shows notable gaps between African countries and other countries and in comparison of yields per hectare African countries and indeed Kenya and Nyeri south Sub County lag behind the rest of the world. The exploitable yields gaps for maize in Africa indicate that production on demonstration farms is way above actual production in Nyeri south Sub County. The above noted statistics are important in determining the performance of the Agricultural sector. 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 follow up has not been effectively undertaken and this indicative of poor data generation and utilization hence the need to focus on data demand & use in the study (Nyeri South Sub County 2013).

### **Purpose of the Study**

The study was aimed at establishing how Monitoring and Evaluation practices moderated by Ethics influences sustainability of agricultural food crop project in Nyeri South District.

### **Objectives of the Study**

The specific objectives of this study were to examine:-

How does M & E data use influences sustainability of Agricultural food crop project.

### **Research Questions**

How does M & E data use influence sustainability of Agriculture food Crop projects?

### **Research Hypotheses**

H<sub>1</sub>: M & E data use collection system influences sustainability of agricultural food crop project

## **RESEARCH METHODOLOGY**

### **Research Paradigm**

Some of the issues addressed in the study required more detailed understanding regarding the way different people view them hence Constructivism paradigm was used. According to this

paradigm people or phenomena cannot be analyzed in 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 the study, this choice being informed by the fact that descriptive and inferential data analysis was used in the study. Mixed methods help a researcher to undertake data analysis with freedom of making use of both descriptive and inferential data as advocated by pragmatist.

**RESULTS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

**Monitoring & Evaluation data demand and use and sustainability of agricultural food crop projects**

The study sought to understand the views of the farmers, extension officers and Sub County Agricultural office in charge and 4 other Sub County Agricultural officers on Monitoring & Evaluation data demand and use and how this would impact on agricultural food crop project sustainability. The items regarding Monitoring & Evaluation data demand and use were measured on a 5-point Likert scale starting from 1 – 5 that indicates the level of disagreement at the lowest measure of 1 to the level of strong agreement at the highest measure of 5.

**Monitoring & Evaluation data demand and use by farmers**

The views of the farmers were sought in to understand their level of agreement or disagreement with various aspects of Monitoring & Evaluation data demand and use and how this impact on the sustainability of agricultural food crop projects. Data demand and use would imply how the farmers see the need to make informed decisions using data that has been gathered in the Monitoring & Evaluation process. The results are presented in table 4.1.

**Table 1. M&E Data demand and use by Farmers**

		SD	D	NS	A	SA	Mean	Std. Deviation
Data is collected	Freq.	24	73	56	45	8	2.69	1.065
	%	11.7	35.4	27.2	21.9	3.9		
Records of the data collected are kept	Freq.	25	90	52	32	7	2.51	0.967
	%	12.1	43.7	25.2	15.5	3.4		
The method of keeping the data recorded is reliable	Freq.	34	79	54	33	6	2.49	1.027
	%	16.5	38.3	26.2	16	2.9		
The data is properly organized	Freq.	18	95	60	28	5	2.55	0.919
	%	8.7	46.1	29.1	13.6	2.4		
previous data is referred to in making decisions	Freq.	19	67	84	21	15	2.73	1.01
	%	9.2	32.5	40.8	10.2	7.3		
better methods of collecting data are overlooked	Freq.	24	86	57	32	7	2.6	0.983
	%	11.6	41.7	27.7	15.5	3.4		
Data collection as currently undertaken influences sustainability of food crop projects?	Freq.	30	105	38	23	10	2.33	0.971
	%	14.6	51	18.4	11.2	4.8		

The results in table 1 indicated that a significant number of the farmers indicated that they were not sure whether data is collected (Mean = 2.69, SD= 1.065). This implies that there was limited involvement of farmers leading to lack of clarity pertaining collection of data however 53 farmers or 25.8% were of the opinion that data was collected. As a result, consistent and conclusive results regarding data collection could not be established from the farmers' perspective. However, based on the responses of the Sub-County Agricultural Officers, Monitoring & Evaluation units do not have data entry clerks and this could account for low number of farmers indicating that data is collected. This is reinforced by the comment below from one of the sub-county agricultural officers when asked about the role played by the data entry clerk:

*Data is mostly entered by each individual officer in respect to their roles  
(Personal Communication, Sub-County Agriculture Officer 2).*

Majority of the farmers were also uncertain if records of the data collected are kept (mean = 2.51, SD = 0.967) though 39 farmers or 18.9% indicated that records of data are kept. Given this number it would indicate that old and recent information is rarely properly documented and kept. A case in point was a water harvesting project that was undertaken in the 1970s when a similar undertaking became imminent later there were no records from which lessons could be drawn. This could be attributed to the quality of the data collected. In the event that data is of poor quality, it cannot be put to use or even properly recorded. In addition, to confirm constraints regarding data collected, majority of the farmers indicated that the method of keeping the data recorded is not reliable (mean = 2.49, SD = 1.027). This means that there is no formally recognized and planned way of data storage for future use. This clearly implies that there is a gap in terms of data archiving by the relevant unit. This implies that lessons that can be used to inform present processes as well as make decisions cannot be relied upon. Consequently, mistakes from the past projects are likely to be replicated in present and future projects because the responsible entities do not have the capacity in terms of know-how, resources, capacity and technology to ensure that data collection becomes a major resource that can be used to guide and drive the sustainability of agricultural food crop projects.

The above results were also confirmed by majority of the farmers who indicated that the data is not properly organized (mean = 2.55, SD = 0.919) at 54.8% totaling 113 farmers with 33 farmers or 16% indicating that it is properly organized. This is an indication that the Monitoring & Evaluation data available is one that cannot be wholly relied on in making decisions. Poor data organization means that the preparation phase in terms of data collection was wanting and this has been highlighted by the lack of involvement of important stakeholders, lack of capacity of the relevant and responsible ministry officials as well as the lack of adequate resources that can be used to drive the process to success. The highlighted inadequacies are expounded by the fact that 86 farmers or 40.7% indicated that data is not referred to in making decisions (mean = 2.73, SD = 1.010) with only a partly 17.5% or 36 farmers indicating that the data is used in decision making. The main reason for collection of data is that it can be used to inform future decisions by drawing lessons from past experiences and overlooking the data collected means that past mistakes are repeated and become even more. This is because accessing such data is a problem and if the data exists, the quality is often poor especially regarding the way it is organized and stored.

Furthermore, in addition to the problems in terms of data collection and use that have been brought out, majority of the farmers indicated that they were not sure whether better methods of collecting data are overlooked (mean = 2.60, SD = 0.983) with 53.3% of the farmers indicating there weren't better methods that were overlooked. This is a clear indication of



lack of capacity building on the part of the farmers as well as ministry officials in which the existing gaps in terms of data collection are not identified so that they can be used to inform the development of better methods of collecting the data. This means that it ceases to become a problem of not using better methods of data collection but rather becomes a problem of lack of awareness on better methods of collecting data. This definitely negatively impacts on the quality of data collected as well as lessons learnt from the data. Finally, basing on the previous findings which have shown glaring gaps in terms of data collection, storage and documentation as well as usage, majority of the farmers disagreed that data collection as currently undertaken influences sustainability of food crop projects (mean = 2.33, SD = 0.971) with 65.6% indicating that data collection does not influence food crop projects sustainability.

**Monitoring & Evaluation data demand & use by extension officers**

The study also sought to understand the nature and level of Monitoring & Evaluation data demand and use from the perspective of the extension officers. This would help inform the current level of data use and hence the identification of existing gaps that can be used to perfect future data use for the purpose of ensuring sustainability of agricultural food crop projects. In addition, the results can be used to ascertain the views of the farmers regarding Monitoring & Evaluation data use. The results were presented in table 2 which shows the level of disagreement and agreement with 8 statements regarding Monitoring & Evaluation data use.

**Table 2: Monitoring & Evaluation data demand & use by extension officers**

		SD	D	NS	A	SA	Mean	Std. Deviation
Data is collected	Freq.	3	0	0	0	1	1.75	0.5
	%	75	0	0	0	25		
The collected records for data are available	Freq.	3	0	0	1	0	2.75	0.957
	%	75	25	0	25	0		
Data collected is properly organized	Freq.	2	1	0	1	0	3.25	0.957
	%	50	25	0	25	0		
Data collected is used to make decisions	Freq.	3	0	0	1	0	2.33	0.577
	%	75	0	0	25	0		
The data collection process is undertaken by qualified personnel	Freq.	2	0	0	2	0	2	0.816
	%	50	0	0	25	0		
The data collected is forwarded to the ministry headquarters and feedback provided	Freq.	1	0	3	0	0	3.5	0.577
	%	25	0	75	0	0		
The data collected focuses only on input and activities at the expense of impact	Freq.	3	0	0	1	0	2.75	0.957
	%	50	25	25	25	0		
Better methods of collecting data are overlooked.	Freq.	2	0	1	1	0	3.25	0.957
	%	50	0	25	25	0		

From the results presented in table 2, majority of the extension officers indicated that data is not collected (mean = 1.75, SD = 0.500) but 1 officer or 257 strongly stated that data is collected. This finding was confirmed by the Sub-County agriculture officer 2 who stated that:

*The lead Monitoring and Evaluation agency has difficulty receiving quality and timely data and information from other parts and levels of government. In many cases, because of its own limited budget and resources, the lead Monitoring and Evaluation agency is dependent on others to provide data and relies on goodwill, rather than explicit authority to encourage compliance. There is also lack of sufficient numbers of skilled Monitoring and Evaluation personnel to gather required data, and weak management information systems that make storing and sharing data difficult.*

These results highlight a major gap where data collection periods are not clearly defined and from the Sub County agricultural officer views, there is a clearly lack of quality data, timeliness in terms of collection and submission of data which is compounded by the fact that there are no financial and other resources such as human resources that can be used in implementing data collection activities and ensuring frequency of data collection is high and that the data is collected in a timely and quality fashion as well as having efficient storage and dissemination of the data.

In addition to this, majority of the extension officers were not sure whether the collected records for data are available (mean = 2.75, SD = 0.957) but 1 officer that the records are available meaning that different officers could be approaching this issue differently. As a result, there is lack of clear and accurate documentation of the results achieved by projects. Therefore, accessing data for the purpose of decision-making and impact assessment is a challenge. Consequently, information reporting poses a challenge and does not provide opportunity for critical analysis and organizational learning, informing decision-making and impact assessment and the antecedent impact on sustainability. Furthermore, majority of the extension officers were not sure whether the data collected is properly organized (mean = 3.25, SD = 0.957) although 1 officer or 25 % r was of the view that data is properly organized. This clear lack of data organization means that the important indicators are not well defined and this might prove difficult in terms of data retrieval and report generation.

A well-designed and organized M&E system will ensure that project staff and stakeholders will not be overwhelmed by huge amounts of data gathered and that only a reasonable amount of time and money is spent in collecting and analyzing data, and collating and reporting the information. To affirm this finding, one Sub-County officer stated:

*Once data has been collected, a structure for the analysis should be developed based on themes and concerns that emerge from the information. Data should then be organized under the themes and patterns, trends and possible interpretations that are identified. After evaluation data has been analyzed, the findings need to be reported to various project stakeholders.*

*(Sub - County Agriculture Officer 4).*

As noted previously, the data collected should be used to make informed decisions basing on the gaps identified so that the projects being implemented have refined processes that would greatly contribute to the outcome. To affirm this, majority of the extension officers (mean = 2.33, SD = 0.577) stated that the data collected is not used to make decisions but 1 officer or 25% of the respondents was of the view that the data is used to make decisions. Since, as

previously noted, it is also a challenge to access data; the available data cannot be wholly relied on because it has not been adequately validated. This means that the quality of data is questionable. Policymakers and project managers make a wide range of decisions for which they use data. Nevertheless, barriers perceived to limit uptake and use of data for decision-making included poor data quality, weak human resource capacity and lack of organizational support to analyze, disseminate, interpret, and utilize data. Efforts to share information across organizations and delays in releasing information limit the usefulness of the data.

In addition to the previous results, half of the extension officers (mean = 2.00, SD = 0.816) indicated that the data collection process is not undertaken by qualified personnel with a similar number or 50% indicating that the data collectors are qualified. This implies that those tasked with data collection to an extent lack training on modern data collection methods. Therefore, the quality of the data collected is in doubt. In addition, for such personnel, interpretation of the different modalities of the data is also a challenge hence the data is not used in decision making.

One of the Sub County Agriculture Officer reported a need for training on data analysis and use for decision-making while extension officers working at facilities with poor quality data expressed a need for training on data collection. There was a common perception that the importance of using data is not valued which affects how well it is recorded, processed and reported. About half of respondents perceived that a culture of data use was not promoted in their facility and that decision making was not based on data. For data to be useful in decision-making, decision-makers need to have access to all relevant data sources. Without sufficient access to full and multiple data sources, data-informed decision-making will be severely curtailed.

On a positive note, majority of the extension officers indicated that data collected is forwarded to the ministry headquarters and feedback provided (mean = 3.5, SD = 0.577) or 75% of the respondents. This infers that the Ministry reliably stores, manages and accesses but the question arises regarding the quality of the data and feedback elicited given doubts related to the source. Data collection is, therefore, inexplicably intertwined with its analysis and use and chances are the forwarded data is aimed at meeting routine office procedures. However, doubt lingers as to whether or not the data collected focuses only on input and activities at the expense of impact (mean = 2.75, SD = 0.957) indicating that 75% of the respondents felt that data collected could be more holistic. This situation is brought about by ineffective methods of collection of data, unqualified personnel and lack of clearly defined indicators pointing to a poor preparation process. Finally, majority of the extension officers were not sure if better methods of collecting data are overlooked (mean = 3.25, SD = 0.957) but 1 officer or 25% felt strongly indicated that better methods are overlooked. This is because data is rarely collected and there is lack of capacity to collect quality information. In addition, this means that because past data is rarely of good quality and rarely used in decision making, the methods of data collection, storage and sharing have not been upgraded to meet current needs especially in terms of technology that can ensure quality and efficiency. As a result, extension officers are unaware of better methods of collecting data that may have been overlooked.

### **Hypothesis testing for Monitoring & Evaluation Data Demand and Use**

The study sought to test the hypothesis stating that Monitoring & Evaluation data demand and use significantly influences sustainability of agricultural food crop projects. Basing on the estimates of coefficients results presented in table 3.



**Table3: Hypothesis testing for Monitoring & Evaluation data demand and use**

	Unstandardized Coefficients		Standardized Coefficients			Correlations		
	B	Std. Error	Beta	T	Sig.	Zero-order	Partial	Part
(Constant)	2.07	0.148		13.995	0.000			
Data demand & use	0.135	0.057	0.165	2.389	0.018	0.165	0.165	0.165
R Square	0.027							
Adjusted R Square	0.023							
F	5.707							
Sig.	0.018							

a. Dependent Variable: sustainability

The findings showed that data use had coefficients that were significant basing on  $\beta_3 = 0.165$  (p-value = 0.018 which is less than  $\alpha = 0.05$ ) implying that the null hypothesis was rejected. It was, therefore, concluded that data use has significant and positive effect on sustainability of agricultural food crop projects. This implied that for each unit increase in data use, there was up to 0.155 unit increase in sustainability of agricultural food crop projects. The effect of data use was stated by the t-test value = 2.647 which indicated that the effect of data use was twice that of the error associated with it. Results from the views of the farmers and the extension officers have shown that the data collected is; rarely used to inform decision making, is not collected based on clearly defined Monitoring & Evaluation standards, is of low integrity, is not stored according to set Monitoring & Evaluation standards and that there are no known better methods that can be adopted in the collection of data among those concerned. In addition, the results also showed that there is inadequate human resource to carry out data collection. This means that concerted efforts between the ministry, the farmers and other stakeholders would ensure that the above identified challenges are addressed that would see increased demand & use of Monitoring & Evaluation data.

## SUMMARY OF FINDINGS

### Monitoring & Evaluation Data Demand & Use and Sustainability of Agricultural Food Crop Projects

The findings showed lack of clearly defined systems for collection, use and sharing of data. In addition, the resources allocated to the process of data collection were not adequate. It was also shown that there was no use of new and better technologies for documentation and storage of data. This implies that there is lack of reliable data, awareness and managerial demand for Monitoring & Evaluation data. Data use and insufficient personnel with data skills constitute a problem in Kenya (Odhiambo, 2000), as is often the case in countries where Monitoring & Evaluation systems are in the formative stage. Access to appropriate data and data sets that can be processed into usable, timely and relevant statistical information is essential for effective Monitoring & Evaluation that in turn can lead to a learning experience and facilitate sustainability. Basing on these challenges, the data collected was found to be lacking in terms of integrity. An assessment of the effect of Monitoring & Evaluation data demand and use showed that with each unit increase in Monitoring & Evaluation data demand and use, there was 0.155 units increase in the sustainability of agricultural food crop projects.

In concurrence with the research results, Woodhill (2005) argues that the use of Monitoring & Evaluation results improves the effectiveness of action and hence sustainability. Further, Mackay (2007) notes that there is need to build reliable Ministry systems to provide the primary data on which Monitoring & Evaluation systems can depend on. Limited data and information makes it a challenge to authoritatively determine the impact of projects as well as sustainability.

## **CONCLUSION**

Based on the study findings, Monitoring & Evaluation data use can contribute significantly to the sustainability of agricultural food crop project. There are, however, issues that need special attention. Precisely, there is lack of clarity on the collection of data, its storage and use to make decisions. This is an indication that the Monitoring & Evaluation data is one that cannot be wholly relied on. The contributing factors, in this case, are the quality of the data and the manner in which the data was collected, including those involved in the collection of data. It is, therefore, a challenge to depend on such data and rely on it to make decisions as per the theory of change that is regarded as a way of describing a set of assumptions that explains both the mini steps that lead to the long-term interest and the connections between project activities and outcomes at each stage.

## **RECOMMENDATIONS**

1. The study recommends that that the data collected should be of good quality, sound and relevant.
2. There is need to train government officials need to be trained in modern data collection methods so as to ensure that data collected is of good quality. Such training will make it possible for the officials to interpret different modalities of the data, making it easier for the data to be used in decision-making. The end result will be better data collection processes and management which will in turn contribute to the sustainability of agricultural food crop projects. This can further enhance project sustainability.
3. Modalities should also continually be put in place to ensure that farmers and indeed officials at the grassroots are exposed to local and international data demand and use practices that are embraced in the agriculturally successful nation systems.
4. The study recommends that data demand and use in monitoring and evaluating be critically embraced for future improved agricultural sector in Kenya given it's critical role.
5. 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.