

INFLUENCE OF RESULT BASED MONITORING AND EVALUATION ACTIVITY'S PROCESS ON HOUSEHOLDS' FOOD SECURITY IN MURANG'A COUNTY

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Abstract: Monitoring and evaluation process helps improve performance and achieve results. Its goal improves current and future management of outputs, outcomes and impact. This includes activities such as, monthly meetings of the small scale farmers, briefings on the research, progress and any gaps realized in the process. This study aims at establishing how Result Based Monitoring and Evaluation activity's process influence households' food security. Descriptive survey design was used. The sample size comprised 371 households, 7 local leaders, and 4 agricultural extensions officers. The result show a positive and significant effect of Result Based Monitoring and Evaluation Activity's process ($R = .508$, $R^2 = .258$ and $p < 0.05$). The study recommends that Policy makers should ensure that public institutions and other implementing agencies adopt the right result based monitoring and evaluation processes that support food security at household level.

Keywords: Result Based Monitoring and Evaluation Systems, Result Based Monitoring and Evaluation Activity's Process, Household Food Security.

1. INTRODUCTION

The Results-Based Monitoring and Evaluation Systems has standard and structured procedures which used for recording and reporting project performance in order to inform decision making on the project implementation and performance (Food and Agriculture Organization (FAO), 2010). It helps in promoting good governance in research projects of small scale farmers of Murang'a County, UNESCO, (2016). It helps in strengthening accountability of household input resources utilization; facilitating transparency throughout research project measurement; promoting understanding of Monitoring and Evaluation process amongst all stakeholders; simplifying Monitoring and Evaluation framework; quick customization and implementation of changes through the small scale farmers' participation, adaptability, flexibility, predictability and continuity that will enable effective utilization of value added to food management through commonisation of activities and processes. Process indicator will provide evidence that certain conditions exist or certain results will not be achieved (Brizius and Campbell, 2010).

Monitoring and evaluation process helps improve performance and achieve results. Its goal improves current and future management of outputs, outcomes and impact. This includes activities such as, monthly meetings of the small scale farmers, briefings on the research, progress and any gaps realised in the process, (Cynthia, 2012). The knowledge gap is mainly used to assess the performance of Murang'a County households. It establishes links between the past, present and future actions. Monitoring and evaluation processes can be managed the project managers or implementing teams themselves, (UN, <https://www.unjju.org>). The credibility and objectivity of monitoring and evaluation reports depends on the independence of the evaluator or evaluating team in charge. Their expertise and independence is of major importance for the process to be successful, (Barreto, 2010). The project research activities are guided using the Logic Model as a tool used for the overall Project Planning and Assessment. The logic model may be used to simply highlight the schematic

representation of the logical sequence and causal relationships among: the results and the changes that are hoped to be achieved; the activities the research plans to do; and the resources that are utilized by the project, (Eiseman, 2006).

2. STATEMENT OF THE PROBLEM

The World Food Programme (WFP) observes that population pressure continues to tip the balance against proper land and water management in many developing countries. Population programmes must be integrated into overall development objectives and be linked to other resource issues. If global population reaches 9.1 billion by 2050, FAO says that world food production will need to rise by 70%, and food production in the developing world will need to double. The Kenya Government on Vision 2030 aims at achieving national food security as one of the key objective in agricultural sector, (Kenya vision 2030). Agricultural sector is the mainstay of the Kenya's economy and the sector directly contributes 24% of the Gross Domestic Product (GDP). (Kenya Food Security Steering Group, 2008), explains that the current food insecurity problems are attributed to several factors, including the frequent droughts in most parts of the country, high costs of domestic food production due to high costs of inputs in seeds and fertilizer especially, displacement of a large number of farmers in the high potential agricultural areas during the post-election violence in early 2008, high global food prices and low purchasing power for large proportion of the population due to high level of poverty.

To understand the current problems facing food production and strategy in improving food security, the food index score verification of Murang'a County (2009 censuses) versus other Counties in Kenya has been viewed by FAO and KFP. The report shows that Murang'a County has a total Population of 942,581 people and falls in the ASAIL region with prevalence of households with poor and borderline food consumption score of 35% or less). The popularity of Result Based Monitoring and Evaluation activities is increasingly being utilized especially among the Development agencies who look at the area of M&E as Methodology Innovation. The situational analysis shows that in Kenya, most projects which undertake Monitoring and Evaluation activities are just to fulfill donor requirement and little is heard about utilization of these results beyond the confines of the project and for accountability purposes. This study thus sought to investigate the influence of Result based Monitoring and evaluation activity's process on households' food security in Murang'a County.

3. OBJECTIVE OF THE STUDY

The general purpose of this study was to establish how Result Based Monitoring and Evaluation activity's process influence households' food security in Murang'a County.

Research Hypotheses

H_A: Result Based Monitoring and Evaluation Activity's process has significance influence on households' food security in Murang'a County.

4. LITERATURE REVIEW

Results-based M&E system management is a way of managing whereby a project ensures that all of its processes, products and services contribute to the achievement of desired results (Figure 4). It depends on clearly defined accountability, these activities should be sequential and need to be carried out in a pre-defined order with activities and sub activities can be modeled in a sequential way for results, and requires systematic monitoring, self-assessment and reporting on progress, (Brizius and Campbell, 2010). The process data gives an overview of all of these activities, processes and deliverables which contain several processes that outline all the deliverables and concepts that result from the activity processes. FAO estimates the value of food lost or wasted annually at the global level is estimated at US\$1 trillion, food is lost or wasted throughout various stages of the food supply chain, (Joris Tielens and Jeroen Candel, 2014). This study seeks to show the underlying problem of ineffective Result Based Monitoring and Evaluation processes in value added interventions in Murang'a County, resulting in; inadequate livelihood opportunities in the production catchments to small scale farmers; high post-harvest losses on farm and in the supply chain linking farmers to markets; high level of food wastage due to shortage of storage spaces; mismatch between agro-exports and agro- imports; huge quantities of under-utilized crop residues and processing by-products leading to loss of income and environmental sustainability; low levels of agro-processing and value addition, (Quesnel and Québec, 2010)

Briefings on research progress and gaps realized helps greatly to improve current and future market process in the provision for households food security in Murang'a County, while still establishing links between past, present and future

action, Results-based M&E is a continuous process of collecting and analyzing information on key indicators, and comparing actual results to expected results, it focuses attention on achieving outcomes important to the small scale farmers in the provision of food security, (Michael, 2013). The activity that enables to the monthly meetings of small scale farmers provides timely, frequent information to the researcher and help establish key goals and outcomes, it permits the researcher and team identify and take action to correct weaknesses, supports a development agenda that is shifting towards greater accountability in the provision of households' food security in Murang'a County.

5. RESEARCH METHODOLOGY

Researcher adopted a descriptive survey design for the investigation which is most appropriate for this type of study. Research approach falls into two major data collection methods of quantitative and qualitative methods. The study targeted 134,654 heads of households, 20 local leaders such as chiefs and sub-chiefs, and 14 Agricultural Extension Officers from the 3 constituencies with 18 wards. The sample size calculation for this study assumed 95% confidence level and 5% precision. The study population for livestock and Agricultural Extension Officers' censuses was carried out on stratum as the population was too low to warrant sampling. The researcher used two types of instruments namely questionnaire and interviews guide. Interview guide was used in order to collect data from Local Leaders and Agricultural Extension Officers, both were expected to be knowledgeable to provide answers from a point of knowledge. The questionnaire was used in order to collect data from heads of households; the questionnaire was able to clarify questions due to the diverse education levels of households ranging from semi illiterate to highly educated people.

Data analysis took place at two levels – descriptive statistics level and inferential statistics level. Descriptive analysis aims at summarizing distributions and describing a set of data on variables of the study. This analysis was used to profile respondents. It was carried out by producing percentages, means and standard deviation and results were displayed in tables. Simple and multiple linear regressions were used to test the hypothesis. The Pearson correlation coefficient was used to determine the strength or degree of a relationship between the independent variable and the dependent variable. All the statistical tests were conducted at 95 percent confidence level. P-value was used to ascertain the significance of each construct in the regression model. The variables were taken to be statistically significant if the p-value ≤ 0.05 .

6. RESEARCH FINDINGS AND DISCUSSIONS

The study targeted 382 respondents; however, the researcher received response from 326 respondents. Further scrutiny established that six questionnaires were poorly filled and hence excluded from analysis. The effective sample dropped to 320 respondents forming 83.77% response rate, which was considered adequate for analysis. This study adopted a cut off Cronbach value of 0.7 which is considered a strong measure of reliability consistency (Creswell & Clark, 2017). This was confirmation of reliability of the data used to draw conclusions from theoretical concepts.

Test of Hypotheses

Hypothesis was formed on the basis of the research objective; it was tested using simple regression analysis. The hypotheses was tested at 95 percent confidence level ($\alpha=0.05$), hence decision points to reject or fail to reject a hypothesis were based on the p-values. Where $p < 0.05$, the study failed to reject the hypotheses, and where $p > 0.05$, the study rejected the hypotheses.

Interpretations of results and subsequent discussions also considered correlations (R), coefficients of determinations (R^2), F-Statistic values (F) and beta values (β). R^2 indicated the change in dependent variable explained by change in the independent variables combined. Further, the higher the F-Statistic, the more significant the model. The negative or positive effect of the independent variable on the dependent (either negative or positive) was explained by checking the beta (β) sign. The R-value shows the strength of the relationship between the variables, t-values represent the significance of individual variables. The findings are presented along study objectives and corresponding hypotheses.

The hypothesis formulated was that; **H₂** Result Based Monitoring and Evaluation Activity's process has significance influence on households' food security in Murang'a County.. This was tested through the simple linear regression analysis. The results are presented in Table 4.1.

Table 4.1 Result Based Monitoring and Evaluation Activity's process and households' food security in Murang'a County**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.508 ^a	.258	.255	.31090

a. Predictors: (Constant), Result Based Monitoring and Evaluation Activity's process

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	10.672	1	10.672	110.405	.000 ^b
Residual	30.737	318	.097		
Total	41.409	319			

a. Dependent Variable: Households food security

b. Predictors: (Constant), Result Based Monitoring and Evaluation Activity's process

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.722	.069		24.835	.000
Result Based Monitoring and Evaluation Activity's process	.328	.031	.508	10.507	.000

a. Dependent Variable: Households food security

The study found strong relationship between Result Based Monitoring and Evaluation Activity's process and households food security ($R = .508$). Coefficient of determination ($R^2 = .258$) indicates that Result Based Monitoring and Evaluation Activity's process explain 25.8% of variation in households food security. This relationship was also found to be significant ($F = 110.672$, $p < 0.05$).

The significant relationship is further manifested by the t-value in the coefficient table ($\beta = .328$, $t = 10.507$, $p < 0.05$). This therefore depicts that Result Based Monitoring and Evaluation Activity's process is key in determining households food security and thus the hypothesis that Result Based Monitoring and Evaluation Activity's process has significance influence on households' food security in Murang'a County was supported.

7. CONCLUSION AND RECOMMENDATION

The study found strong relationship between Result Based Monitoring and Evaluation Activity's process and households' food security with coefficient of determination indicating that Result Based Monitoring and Evaluation Activity's process explain huge variation in household's food security. This relationship was also found to be significant and thus the hypothesis that Result Based Monitoring and Evaluation Activity's process has significance influence on households' food security in Murang'a County was supported.

The findings from this study provide a strong indication that households food security is influenced by result based monitoring and evaluation processes. This implies that public and private organisations need to align their processes so as to embrace new farming techniques for farmers. In this era of ne farming systems, farmers and other implementing agencies have to adopt strategies that are geared towards enhancing farm production. Farmers' cooperative societies and implementers need to emphasize on capacity building that will equip their member farmers with knowledge and skills on new farming techniques and systems in order to bridge the food security divide.

REFERENCES

- [1] Calum B, Dave M. R, Jasper van V, Shah J, Peter H. V, and Mark D. R, (2014). Experiments in Globalisation, Food Security and Land Use Decision Making
- [2] Chao, P. (2010). Methodological Considerations in a Quantitative Study of: The Effect of Logistics Service Value and Relationship Quality on Financial Performance, Evidence from Multimodal Transport Service in Thailand. *Proceedings in 19th EDAMBA Summer Academy, Soreze, France, July, 2010.*
- [3] Campbell, D.T. and Stanley, J.C. (1963). *Experimental and Quasi-Experimental Designs for Research*. Rand McNally, Chicago, Illinois.
- [4] Cohen, L., Manion, L. and Morisson, K. (2007). *Research Methods in Education (6th E.d)*. New York: Routledge.
- [5] De Vaus, D.A. (1993). *Surveys in social research (3rd Ed.)*. London: UCL Press.
- [6] Deverur, S, (2001). Sen's Entitlement Approach: Critiques and Counter-critiques. Oxford Development Studies, Vol. 29, No. 3, 2001. <https://www.sas.upenn.edu/~dludden/FamineMortality.pdf>
- [7] Fiszbein, A. and Schady, N. (2009). *Conditional Cash Transfers: Reducing present and future poverty: A World Bank Policy Research Report*. World Bank, Washington, D.C.
- [8] Gary Gand James M,)2012.(*A Tale of Two Cultures: Qualitative and Quantitative Research in Social Science*. Princeton University Press. Amazon Com
- [9] Hoffman, A.J. (2017). What Is Your Theory Of Change? *Holcim (US) Professor of Sustainable Enterprise and Education Director at the Graham Sustainability Institute at the University of Michigan*