THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Influence of Result Based Monitoring and Evaluation Impact Process on Households' Food Security in Muranga's County, Kenya

Anne Nyawira Ngugi

Lecturer, College of Education and External Studies, University of Nairobi, Kenya

Timothy Maitho

Lecturer, Department of Public Health, Pharmacology and Toxicology,
University of Nairobi, Kenya

Dorothy Ndunge Kyalo

Lecturer, Department of Extra Mural Studies, College of Education and External Studies,
University of Nairobi, Kenya

Abstract:

Monitoring and evaluation process helps improve performance and achieve results. The Monitoring and Evaluation Impact process helps in the evaluation of activities such types of food produced; Number of trained households' farmers; Availability of marketing Linkages for households; Achievement of the mission of farming project and evaluate extent of irrigation systems and any gaps realized in the process. Its goal improves current and future management of outputs, outcomes and impact. This study aims at establishing how Result Based Monitoring and Evaluation impact process influences households' food security. Descriptive survey design was used. The sample size comprised 371 households, 7 local leaders, and 4 agricultural extensions officers. The result shows a positive and significant effect of Result Based Monitoring and Evaluation Impact process ($R = .508$, $R^2 = .258$ and $p < 0.05$). The study found strong relationship between Result Based Monitoring and Evaluation Impact process and household's food security ($R = .675$). Coefficient of determination ($R^2 = .455$) indicates that Result Based Monitoring and Evaluation Impact process explain 45.5% of variation in household's food security. This relationship was also found to be significant ($F = 265.601$, $p < 0.05$). 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 impact process in 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, Ray, C. R. (2004). According to 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) coined that 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 communication of activities and processes. Process indicator will provide evidence that certain conditions exist or certain results will not be achieved, Todd H, and van der Klaauw, W, (2001). Impact assessment may be intimately connected to Mission of the provision of food security in which is hoped to ripple through the organization, with ability to assess and articulate impact powerful means of communication, internally and externally, whose contribution of activities trickles to targeted households, (WB, 2006).

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, Ray, C. R. (2004). 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.unjiu.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.

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) verses 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 has to be increasingly utilized especially among the Development agencies who look at the area of M&E as Methodology Innovation. (Gertler, 2000), asserts that initiatives must be incorporated into policy in order to make major kind of impact evaluation, universal assessments, policy effect assessment, strategic environmental evaluation, and environmental impact evaluation. This would only be achieved by evaluating types of food produced; number of trained household farmers; availability of marketing linkages for households; achievement of the mission of farming project and evaluate extent of irrigation systems.

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 Impact 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 Impact process influences households' food security in Murang'a County.

Research Hypotheses HA: Result Based Monitoring and Evaluation Impact 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, White, H. (2006). 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. 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, Michael, P. (2013).

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, Todd H, and van der Klaauw, W, (2001). 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, Campbell, D.T. and Stanley, J.C. (1963). This was confirmation of reliability of the data used to draw conclusions from theoretical concepts.

7. Test of Hypotheses

Hypothesis was formed on the basis of the research objective; it was tested using simple regression analysis. The hypotheses were 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; The hypothesis formulated was that; **H₁** Result Based Monitoring and Evaluation Impact 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 1.

Model Summary						
Model 1	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	0.675 ^a	0.455	0.453		0.26637	
a. Predictors: (Constant), Result Based Monitoring and Evaluation Impact process						
a. Predictors: (Constant) Result based Monitoring and Evaluation Impact Process						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.846	1	18.846	265.601	0.000 ^b
	Residual	22.564	318	0.071		
	Total	41.409	319			
a. Dependent Variable: Households food security						
b. Predictors: (Constant), Result Based Monitoring and Evaluation Impact process						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.066	0.085		12.567	0.000
	Result Based Monitoring and Evaluation Impact process	0.735	0.045	0.675	16.297	0.000

Table1: Result Based Monitoring and Evaluation Impact Process and Households' Food Security in Murang'a County
a. Dependent Variable: Households food security

The study found strong relationship between Result Based Monitoring and Evaluation Impact process and household's food security ($R = .675$). Coefficient of determination ($R^2 = .455$) indicates that Result Based Monitoring and Evaluation Impact process explain 45.5% of variation in household's food security. This association was also found to be

significant ($F=265.601$, $p<0.05$). The study found strong relationship between Result Based Monitoring and Evaluation Impact process and household's food security ($R=.675$). Coefficient of determination ($R^2=.455$) indicates that Result Based Monitoring and Evaluation Impact process explain 45.5% of variation in household's food security. This relationship was also found to be significant ($F=265.601$, $p<0.05$). The significant relationship is further manifested by the t-value in the coefficient table ($\beta=.735$, $t=16.297$, $p<0.05$). This therefore depicts that Result Based Monitoring and Evaluation Impact process is the key in determining households' food security and thus the hypothesis that Result Based Monitoring and Evaluation Impact process has significance influence on households' food security in Murang'a County was supported.

8. Conclusion and Recommendation

In conclusion, the study found that the many times spent in Result Based M&E impact process training geared toward empowering households resulted in ultimate improved agricultural produce. The study found strong relationship between Result Based Monitoring and Evaluation Impact 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 found that Result Based Monitoring and Evaluation Impact process has significance influence on households' food security in Murang'a County was supported. The study recommendations have significant implications on the policy and government, researchers, civil society and M&E practitioners, civil society organizations, policy and government as contained in this part of the study. impact process in training households enable the participation to be better placed in decision making. Capacity of households would enable them in utilizing the available marketing linkages, considered indicator in evaluating the extent of facilitating usage items such as irrigation system for enhanced agricultural produce for food security. In consideration that the Government of Kenya and other non-governmental organizations are moving towards implementation of various aspects of household food security including result based monitoring and evaluation processes among others, this study has impact to the government, enacting organs and society.

9. References

- i. Barreto, M. (2010). *Evaluating outsourcing partners' capability: Stakeholder engagement program follows a logical chain of events* [www.emeraldinsight.com/doi/full/10.1108/JMTM-02-2012-0023?](http://www.emeraldinsight.com/doi/full/10.1108/JMTM-02-2012-0023?mobileUi) mobile Ui. Cited on 14/4/2020.
- ii. Calum, B., Dave, M., Jasper van, V., Shah, J., Peter, H., & Mark, D. (2014). *Experiments in Globalisation, Food Security and Land Use Decision Making*.
- iii. Campbell, D., & Stanley, J. (1963). *Experimental and quasi-experimental designs for research*. Chicago, Illinois: Rand McNally.
- iv. Deverur, S, (2001). Sen's Entitlement Approach: Critiques and Counter-critiques. *Oxford Development Studies*, 29(3), 2001. <https://www.sas.upenn.edu/~dludden/FamineMortality.pdf>
- v. FAO, *The Role of Women in the Conservation of genetic Resource of Maize*. (2002). *Fats and oils in human nutrition. Report of a Joint FAO/WHO Expert Consultation*. Rome, Food and Agriculture Organization (FAO Food and Nutrition paper No 57).
- vi. Fiszbein, A., & Schady, N. (2009). *Conditional cash transfers: Reducing present and future poverty: A World Bank policy research report*. Washington, D.C: World Bank.
- vii. Gertler, P. (2000) *Final report: The impact of progres on health*. Washington, D.C: International Food Policy Research Institute.
- viii. Michael, P. (2013). Some of my best friends are germs. *New York Times Magazine*, 15 May, <http://www.nytimes.com/2013/05/19/magazine/say-hello-to-the-100-trillion-bacteria-that-make-up-your-microbiome.html?hp>. Retrieved on 3/4/2020
- ix. Joris, T., and Jeroen, C. (2014). Reducing food wastage, improving food security. *Food & Business Knowledge Platform Bezuidenhoutseweg, The Hague (The Netherlands)*.
- x. Ray, C. R. (2004). *Ten steps to a results-based monitoring and evaluation system*. 1818 H Street, NW Washington, DC 20433: The World Bank.
- xi. Todd, H., & van der Klaauw, W. (2001). *Impact Evaluation of Development Programmes and Policies: Experiences from Viet Nam*. Online at <https://mpra.ub.uni-muenchen.de/60919/> MPRA Paper No. 60919, posted 26/3/2020 16:23 UTC
- xii. White, H. (2006). *Impact Evaluation: The Experience of the Independent Evaluation Group of the World Bank*. Washington, D.C: World Bank.
- xiii. UNESCO, (2016). *Education Sector Division for Policies and Lifelong Learning Systems (ED/PLS) Section of Education Policy (ED/PLS/EDP) January 2020*.