

Effects of Partnerships and Foreign Aid in The Agricultural Sector to Enhance Food Security by The Ministry of Agriculture in Kenya

Joan W. Mbirua¹, Anita W. Wachira², Lilian K. Mwenda³

¹MBA Student, Dedan Kimathi University of Technology

^{2,3}Senior Lecturers, Dedan Kimathi University of Technology

Corresponding Author: Joan W. Mbirua

Abstract: *The study analysed the effects of partnerships and foreign aid in the agricultural sector to enhance food security by the ministry of agriculture in Kenya.*

Descriptive research design was adopted with a population of 300 personnel (100 heads of department and 200 field staff). Sampling was done through the Yamane's formula achieving a sample size of 171 (50 heads of division and 121 field staff). Information was collected using a closed-ended questionnaire yielding a 93.6% response rate (40 heads of division and 121 field staff). SPSS version 23 was used to process and analyse the data. Descriptive statistics were presented in the form of frequencies and percentages and inferentially using a linear regression model where food security (dependent variable) and partnerships and foreign aid in the agricultural sector (independent variable).

Partnerships and foreign aid in the agricultural sector (X_1) showed a coefficient of 1.262. The regression model generated R^2 value of negative 2.641 which means that, no yields can be realized by any farmer without any form of partnerships e.g. in terms of labor. The P value was significant at 0% level (sig. $F=0.001$), confirming that the model is fit. The study variable had a positive relationship. Hence, from these study findings, enhancing food security is collaborative effort by different stakeholders each of whom must play a critical role. In other words, agricultural partnerships which are formed with other donor agencies should be strengthened to improve food sufficiency in the country.

Key words: *Food security, partnerships and foreign aid, Agricultural sector*

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I. Introduction

Studies on how different strategies can enhance food security in the past have dwelt on how funds can be well utilized to increase food production, support food imports, improve the purchasing power parity among the population, and increase water for irrigation (Manap et al., 2015). The core of these studies has been on how governments all over the world can overcome the challenges of increased demand for sufficient and nutritious food for a burgeoning population of diverse dietary tastes in the face of decreasing availability and quality of natural resources (Lean, Hinrichsen and Markham, 1990).

In view of the dangers posed by food insecurity world over, governments have been for over three decades been under pressure to increase agricultural yields and improve overall farmer productivity in the context of a more socially, economically and environmentally sustainable agriculture (Lean, et al., 1990). It is on this background that the UN Millennium Project Task Force on Hunger in 2005 recommended a concerted action to halve hunger by 2015 by among many things increasing political action, carrying out policy reforms, improving nutrition for the chronically hungry and vulnerable, increasing agricultural productivity of food-insecure farmers, and reducing vulnerability of the acutely hungry with productive safety nets. It observed that many agencies and states have successfully used social and food safety nets like regular transfers of cash and providing fertilizers or seeds to farmers to broaden food access (Ministry of Foreign Affairs of Finland, 2013).

FAO (2004) in its document titled 'The State of Food Insecurity in The World 2004, observes that hunger, poverty and disease are interlinked, and each contributes to the occurrence of the other two. It adds that hunger reduces natural defenses against most diseases, and is the main risk factor for illness worldwide and hungry people can neither produce nor buy enough food to eat to overcome the dangers associated with diseases. Thus, hunger is a major constraint to the immediate and long term economic, social and political development of a country, implying that food security is a prerequisite for economic development.

The report affirms that hunger losses in labour productivity due to hunger is responsible for 6-10% reduction in per capita gross domestic product (GDP), adding that pre-birth undernourishment is associated with

poor cognitive development among young children, resulting in lower productivity and lifetime earnings potential. According to POSTnote (Dec. 2006), research has established three areas that determine food insecurity, namely: the immediate causes of hunger, underlying determinants of conditions in a community and the impact of shocks.

In Kenya, the production of food does not match the food demand of the increasing population. With a population estimated at 43,013,341 comprising 42.8% of those under 14 years of age and 54.6% between 15-64 years in 2012, figures indicate that the country's population is growing at more than 2.6% and is expected to reach 81.4 million by 2050 (WHO, 2011). The apparent disparity between the rate of food production and demand for food in Kenya has led to deficiency, hence posing a threat to national food security. As a result, the Kenya government has over the years touted various agriculture policy reforms out of the understanding that farmers and the rural sector cannot progress without the credit and financial services they have been starved of (Argwings-Kodhek, 2004).

1.1 Statement of the problem

Despite the countries numerous attempts at finding a lasting solution to the food security crisis, Kenyan government statistics indicate that over 10 million people suffer from chronic food insecurity and poor nutrition, and in recent years about two million people have depended on relief assistance to access food. Past studies have focused on food security solely with little regard to the effects of the governments' strategies which greatly influence the running of a country. These studies, therefore, imply a region that does not have a central governing body. Informed by this knowledge gap, this study will seek to investigate the government strategies that the national and county governments are employing through the ministry of agriculture to enhance food security in Kenya. Specifically, the study explored the effects of partnerships and foreign aid in the agricultural sector on food security in Kenya.

1.2 Research objective

To explore the effect of partnerships and foreign aid in the agricultural sector of food security in Kenya.

1.3 Research hypothesis

H₀₁: There is no significant effect of partnerships and foreign aid in the agricultural sector on food security in Kenya.

II. Literature Review

In The State of Food Insecurity 2001: Food security is described as “a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO, 2002).

Ritakou (2014) studied the recent interest of donor's funds to Kenya's agriculture. The researcher observed that Kenyan government has partnered with domestic and foreign donors in an effort to promote food security in the country. Ritakou (2014) adds that such partnerships pertain to: programs to increase agricultural production; employment and income distribution programs; interventions to increase human capital; and food-based distribution programs.

Kaguara (2014) carried out a descriptive study to investigate the effects of food aid on food security in Kenya for the period 2006 to 2012, by considering the work of WFP, NDMA and KFSSG in 18 counties of ASAL region that are prone to food insecurity. The study found that there is a link between food aid and food security in Kenya. Much of the food distributed during drought and famine is mostly emergency food aid sourced under bilateral arrangements rather than multilateral donors. The study condemned the over reliance on traditional mode of agriculture that is rainfall dependent which perpetuates food insecurity. The researcher blamed food aid as having a negative effect on the marketing of locally available food at the grassroots level. The study recommended that all food security stakeholders up their game in finding for lasting solutions.

The relationship between the independent and the dependent variable are as illustrated in figure 1.1:

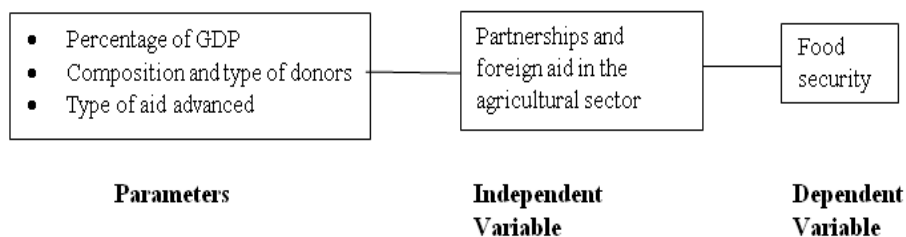


Figure 1.1: Operationalization of variables

III. Methodology

The study adopted quantitative methodology and thus applied descriptive survey research design. The target population comprise 100 Heads of Division and 200 Field Staff totaling to 300 respondents from which 171 respondents were determined using Yamane’s Formula. This sampling procedure enabled the researcher to obtain a sample size of 50 Heads of Division and 121 Field Staff.

Questionnaires were used to collect quantitative data from the respondents. Piloting of was conducted amongst 17 respondents from the State Department of Fisheries to establish validity and reliability of the instruments. Validity was established through expert judgment whereas reliability was established using test retest technique. Reliability coefficient (r) between the two sets of scores was conducted using Cronbach Alpha Method which yielded, $r = 0.7$, thus indicating higher internal consistency.

Data analysis began by identifying common themes from the respondents’ description of their experiences. Quantitative data were analyzed descriptively using frequencies and percentages and inferentially using linear regression of the form $Y = \beta_0 + \beta_1 X_1 + \epsilon$ to assess the relationship between partnerships and foreign aid in the agricultural sector and food security with the help of Statistical Package for Social Sciences (SPSS Version 23).

Note:

Y – dependent variable (food security)

β_0 - is the constant term

β_1 - is the coefficient of the independent variable X_1

X_1 – independent variable (partnerships and foreign aid in the agricultural sector)

ϵ - error term which is normally distributed with a mean and variance of zero.

IV. Findings and Discussions

The study targeted 171 respondents from a population of 300 employees with 160 questionnaires filled and returned (a 93.6% response rate) which was satisfactory to make appropriate conclusions for the study.

4.1. Respondents’ demographics

The respondents comprised of Heads of Department and Field staff distributed as shown in Table 4.1. These data show that there was gender disparity at all levels of the study and that the issues of food security are of great concern to male and female stakeholders and the extent to which strategies developed by the government enhance food security.

Table 4.1: Gender Distribution

	Male	Percentage	Female	Percentage
Heads of department	30	75%	10	25%
Field Staff	72	60%	48	40%
Total	102	63.8%	58	36.2%

Majority, 28(70.0%) of the Heads of Division had Bachelors’ Degrees whereas 30.0% had postgraduate qualifications. Majority, 78(65.0%) of the Field Staff had Degrees whereas slightly more than a third, 42(35.0%) had postgraduate qualifications.

Table 4.2: Respondents’ level of education

Educational Qualifications	Heads of Division		Field Staff	
	F	%	f	%
Degree	28	70.0	78	65.0
Postgraduate	12	30.0	42	35.0
Total	40	100	120	100

4.2. Descriptive statistics

Table 4.3: Government Partnerships and foreign aid on Food security

Test Items	RESP.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
		%	%	%	%	%
There is a positive ratio to the partnerships and foreign aid to the GDP of the Kenya	HoD FS	59.5 66.3	15.5 9.7	4.5 3.9	11.5 12.3	9.0 7.8
The areas of co-operation among various stakeholders has led to improved food security in Kenya	HoD FS	56.5 63.9	23.5 11.5	2.5 1.3	9.5 13.7	8.0 9.6
The various stakeholders in the	HoD	51.5	8.5	7.0	22.5	10.5

agricultural sector has led to improved food security in Kenya	FS	58.3	7.6	4.4	21.8	7.9
The aid advanced to Kenya has helped in the drive to achieve food security in Kenya	HoD	68.5	15.5	3.5	8.5	4.0
	FS	72.6	10.5	2.4	7.9	6.6
The process of partnering with the Government of Kenya and its agencies is not pegged on the country providing a kick-back to the agency advancing such an aid	HoD	78.5	14.5	2.5	3.0	1.5
	FS	77.2	13.3	1.5	6.3	1.7
There is a strong relationship among various stakeholders on eradication of food insecurity in Kenya	HoD	68.5	13.5	3.5	3.5	11.0
	FS	70.5	15.3	4.5	6.7	3.0

A fair majority (59.5%HoD) and (66.3%FS) strongly agreed with the view that there is a positive ratio to the partnerships and foreign aid to the GDP of the Kenya, 15.5% of the Heads of Division agreed as did 9.7% of the Field Staff. However, only a paltry 4.5% of the Heads of Division as well as 3.9% of Field Staff were undecided, 11.5% of Heads of Division as did 12.3% of the Field Staff disagreed whereas 9.0% of Heads of Division and 7.8% of the Field Staff strongly disagreed.

The study revealed that a fair majority (56.5%HoD) and (63.9%FS) strongly agreed with the view that the areas of co-operation among various stakeholders has led to improved food security in Kenya. 23.5% of the Heads of Division as did 11.5% of the Field Staff agreed. However, 2.5% of Heads of Division and 1.3% of the Field Staff were undecided, 9.5% of Heads of Division and 13.7% of the Field Staff disagreed whereas 8.0% of the Heads of Division as did 9.6% of the Field Staff strongly disagreed.

The study findings that 51.5%HoD and 58.3%FS strongly agreed with the view that the various stakeholders in the agricultural sector has led to improved food security in Kenya. On the same breath, 8.5% of the Heads of Division as did 7.6% of the Field Staff agreed. However, 7.0% of Heads of Division and 4.4% of the Field Staff were undecided, 22.5% of Heads of Division and 21.8% of the Field Staff disagreed whereas 10.5% of the Heads of Division as did 7.9% of the Field Staff strongly disagreed.

In the same vein, majority (68.5%HoD) and (72.6%FS) strongly agreed with the view that the aid advanced to Kenya has helped in the drive to achieve food security in Kenya. Meanwhile a small proportion of 15.5% of the Heads of Division and 10.5% of the Field Staff agreed. On the same breath, 3.5% of the Heads of Division and 1(2.4%) of Field Staff were undecided, 8.5% of Heads of Division and 7.9% of the Field Staff disagreed whereas 4.0% of the Heads of Division as did 6.6% of the Field Staff strongly disagreed.

The study also found out that majority (78.5%HoD) and (77.2%FS) strongly agreed with the view that the process of partnering with the Government of Kenya and its agencies is not pegged on the country providing a kick-back to the agency advancing such an aid. Meanwhile a small proportion of 14.5% of the Heads of Division and 13.3% of the Field Staff agreed. At the same time, 2.5% of the Heads of Division and 1.5% of Field Staff were undecided, 3.0% of Heads of Division and 6.3% of the Field Staff disagreed whereas 1.5% of the Heads of Division as did 1.7% of the Field Staff strongly disagreed.

The study also found out that majority (68.5%HoD) and (70.5%FS) strongly agreed with the view that there is a strong relationship among various stakeholders on eradication of food insecurity in Kenya. At the same time a small proportion of 13.5% of the Heads of Division and 15.3% of the Field Staff agreed, 3.5% of the Heads of Division and 4.5% of Field Staff were undecided, 3.5% of Heads of Division and 6.7% of the Field Staff disagreed whereas 11.0% of the Heads of Division as did 3.0% of the Field Staff strongly disagreed.

1.4 Inferential Statistics

Hypothesis **H₀₃**: The study found that there is a significant relationship between number of agriculture partnerships formed by the government and yields in tons produced by farmers which implies improved food security. The computed p-value was 0.001 which was less than the alpha figure. The linear equation assumed the format:

$Y = \beta_0 + \beta_3 X_3 + \epsilon$ while the hypothesis stated as follows

H₀₃: Partnerships and foreign aid in the agricultural sector have no significant effect on food security in Kenya.

Table 4.4: Number of Agricultural Partnerships and 5-years Reported Yields

Number of Partnerships	Yields in tonnes from Farmers
15	17.890
21	23.342
35	38.003
41	50.765
53	65.075

Table 4.4 indicates that partners in agriculture contribute immensely towards food security. That is, the more the agricultural partnerships formed by the government, the higher the agricultural yields from farmers. The results in Table 4.4 were subjected to Linear Regression Model was generated as shown in Table 4.5:

Table 4.5: Linear regression model

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.641	2.917		-0.905	0.432
	Number of Agricultural Partnerships and foreign aid	1.262	0.082	0.994	15.459	0.001

These results from the linear regression equation indicates that the coefficient for maize prices per kilogram per sack is 1.262. This implies that for every addition in the number of agricultural partnerships which government forms to provide incentives to farmers, the yield is expected to increase by 1.262 tons and vice versa. However, the value 2.641 is negative which means that, no yields can be realized by any farmer without any form of partnerships such as in terms of labor.

These findings further corroborate the findings of a study carried out by Ritakou (2014) who also observed that Kenyan government has partnered with domestic and foreign donors in an effort to promote food security in the country. According to Ritakou (2014), such partnerships pertain to: programs to increase agricultural production; employment and income distribution programs; interventions to increase human capital; and food-based distribution programs. Hence, from these study findings, enhancing food security is collaborative effort by different stakeholders each of whom must play a critical role. In other words, agricultural partnerships which are formed with other donor agencies should be strengthened to improve food sufficiency in the country.

V. Conclusion Of The Study

From the study findings, it is further evident that government through its agencies engage in different forms of agriculture partnerships as a strategy for enhancing food security. In other words, the study established stakeholders play a key role in realization of food security in the country. Thus, partnerships which government forms with other donor agencies should be strengthened as a strategy measure for improving food sufficiency in the country.

VI. Recommendations Of The Study

The study recommends that the government and other stakeholders should encourage farmers to form partnerships with organizations which are geared towards improving their productivity

VII. Further Research

The study recommends the following areas for further research:

- i) The extent to which agricultural extension services influence food security
- ii) The influence of farmers' training and capacity on food security.

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