

THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Devolved Funds Allocation and Enhancement of Food Security in Uasin Gishu County, Kenya

Edward Kibiwott Boor

Ph.D. Student, College of Human Resource Development,
Jomo Kenyatta University of Agriculture and Technology, Kenya

Dr. Jane Omwenga

Lecturer, College of Human Resource Development,
Jomo Kenyatta University of Agriculture and Technology, Kenya

Dr. Mike Iravo

Lecturer, College of Human Resource Development,
Jomo Kenyatta University of Agriculture and Technology, Kenya

Abstract:

Food security revolves around the primary need of any human being. Devolution was born to address the short comings of the national government by making sure services, resources, opportunities are close to its citizens. The main objective of this study was to determine the effect of devolved funds allocation on enhancement of food security in Uasin Gishu County. The target population was residents of six sub counties in Uasin Gishu County. Probabilistic and non-probabilistic sampling techniques were used in the study. The sample size was 383 households. Primary data was the main source of data. Pretesting was done in chesumei sub county, Nandi County. This study adopted content validity and factor analysis was performed to assess convergent validity. Cronbach's alpha coefficient was used to test for reliability. The empirical results were ($\beta = .624, p = .000, \alpha < 0.01$) implying that devolved funds allocation has a significant effect on enhancement of food security. The study concluded that food security funded projects increases agricultural productivity and the availability and accessibility of safe and nutritious food. Prioritization of allocation of funds for eligible nonprofits, public private partnerships, and food program service providers promotes self sufficiency and food security. The study recommended that the Kenyan government should build a platform to promote dialogue and cooperation among relevant institutions and programmes in all sectors with the aim of developing an extension and information services network for food security.

Keywords: *Devolved funds allocation, food security, fiscal decentralization*

1. Introduction

Decentralization discipline revolves around making resources to be within the reach of the majority of Citizens. One of the many objects of devolution is to facilitate equitable distribution of services even to the marginalized and poor communities in any jurisdiction. In 2010 Kenyans' ushered in a new political era after the promulgation of the new constitution. The main intent of the devolved system of government was to devolve political and administrative powers to the counties. Section 4 of the constitution delineates agriculture, health services, water, county planning and development as part of the major functions of county governments. Funds allocation is at the centre stage to success of all the highlighted functions of County Governments. The premafacie to the birth of county governments was to facilitate ease in distribution of services for purposes of inclusivity. Corruption, tribalism has infringed the benefits of county governments to less privileged and vulnerable citizens in Kenya and around the globe. The amount of funds disbursed to county governments' in Kenya has not been successful in taming down on the poverty levels of its citizens.

Devolved funds have been bedeviled by shortfalls such as; lack of transparency and accountability, lack of effective participation of local communities in selecting, prioritizing and implementing development projects, poor public finance management at all levels of government and lack of institutional monitoring and evaluation mechanisms, limited public oversight on existing public resources, weak absorptive capacity, and mismanagement of the funds at the county levels has not addressed food insecurity in the Country. According to the research works of Turner (1999) fiscal decentralization programmes have failed to solve the political, economic and institutional problems of African development. The researcher postulates; parochialism, poor managerial and technical capacity, inadequate funding as some of the major factors against the successes of fiscal decentralization.

There is a need therefore for the county governments to go beyond its borders to create market opportunities in other counties for its farmers' farm produce especially value added produce. This will boost its chances of sustaining and growing its economic growth. This will not only improve the revenue base of the county but also livelihoods of its citizens. To help promote the agricultural sector the counties could invest in maize milling plants and fertilizer factories. Investment needs to be done on livestock farming, milk

cooling and meat processing plants should be medium term priority to the county governments. The county governments need to improve the capacity of the existing facilities, such as slaughter houses and milk cooling plants. In a Kenyan set up, the North Rift is very rich in milk production due to the favorable climatic conditions that promotes dairy farming. Owing to the poor road network and far flung markets, there is need for the county government to budget for milk cooling plants in the next financial year (Kimingi, 2014). This would reduce wastage in the form of spoiled milk and ensures farmers get a return for their produce. The county governments need to build the capacity of pastoralists on agricultural extension services (livestock veterinary) so as to improve the quality of their livestock. According to World Bank (2015), for counties to achieve their desired goals, a strategy ought to be in place supported by relevant policies and legislations. To be able to fully optimize agricultural development, counties need enough funding from the central government and deal with budget allocation challenges. The counties can address the food security problems in the North rift and save the central government the perennial headache in distribution of relief food to its citizens.

1.1. Statement of the Problem

Literature exists on devolution in Kenya. However, the existing literature is not comprehensive enough, thus warranting more studies on devolution with specific emphasis to agricultural activities. The studies that have previously been done on devolution of agricultural have not emphasised on the achievements of the policy recommendations in the various legal frameworks on devolution. The existing literature with specific emphasis to the studies that have been conducted are out dated, implying that circumstances and status might have changed thus the need to conduct this study to determine the current status of devolution of agricultural activities. No study has been done on devolution and governance focussing on achievements of devolution based on the existing funds allocated to specific counties. It would be interesting in this study just to find out on how funding has influenced the performance of devolution in various sectors including agriculture.

Likewise, there is not existing information on evaluation of skills gaps in the various counties; therefore this study was an opportunity to determine if at all there are skills gaps in the various counties. The various legal frameworks on devolution have provided elaborate information on the policy measures on devolution, however there is no comprehensive information on the impact of devolved system of governance in the 47 counties.

2. Literature Review

2.1. Accountability Theory

According to Ostrom, Schroeder and Wynne (1993), the accountability theory advocates or suggests that decentralization is there to promote accountability in provision of service delivery and reduce corruption in the government. Since sub-national Governments are closer to the people, citizens are considered to be more aware of sub- National Governments actions than they are of actions of the Central Government. Also, the resulting competition between sub-national providers of public goods is seen to impose discipline on Sub-National Governments, as citizens averse to corruption may exit to alternative jurisdiction or providers. Corruption represents a breakdown of cooperative behavior, in which the few collude to the detriment of all. Devolving functions to smaller units that are closer to the population should, in theory, increase consensus and legitimacy concerning the choice of public services. This, in turn, can be expected to foster cooperation, vigilance, as well as acceptance of and adherence to rules of public sector integrity. This would be especially true where the financing of public services is devolved via the assignment of tax instruments or the collection of user fees. In plural or socially fractionalized nations, the question then arises whether jurisdictions can be so designed so as to maximize social(ethno-linguistic) homogeneity and social capital, and therefore the propensity to cooperate at the local level (Meagher, 1999).

2.1.1. Cost Recovery Theory

The cost recovery theory which emphasizes that making service more demand responsive through decentralization has added benefit that increases households' willingness to pay for services (Briscoe & Garn, 1995). Households are argued to be more willing to pay for and maintain services that match their demand: this is the flipside of the allocative efficiency coin. Moreover, a relatively close match between supply and local demand, if coupled with transparency and with local cost-sharing or cost recovery, can provide the incentives and information base for effective local monitoring. The latter is a necessary ingredient in an overall anti-corruption strategy, and in particular helps to shrink the information asymmetries and leakages that can undercut both allocative efficiency and cost recovery (Litvack & Seddon, 1999). On the other hand the allocative efficiency theory argues that the most common theoretical argument for decentralization is that it improves the efficiency of resource allocation. Decentralized levels of government have their reason in the provision of goods and services whose consumption is limited to their own jurisdictions. By tailoring outputs of such goods and services to the particular preferences and circumstances of their constituencies, decentralized provision increases economic welfare above that which results from the more uniform levels of such services that are likely under national provision.

The basic point here is simply that the efficient level of output of a local public good that is, that for which the sum of residents' marginal benefits equals marginal cost) is likely to vary across jurisdictions as a result of both differences in preferences and cost differentials (Oates, 1999). Since Sub-National Governments are closer to the people than the Central Government, they are considered to have better information about the preferences of local populations than the Central Government (Musgrave, 1998). Hence, such governments, it is argued, are better informed to respond to the variations in demands for goods and Services. Second, sub-national governments are also considered to be most responsive to the variations in demands for and cost of providing public goods. Decentralization is thought to increase the likelihood that Governments respond to the demand of the local population by promoting competition among Sub-National Governments (Tiebout, 1996). Competition among Sub-National Governments is said to allow for a

variety of bundles of local public goods to be produced, and individuals are said to reveal their preferences for those goods by moving to those jurisdictions that satisfy their tastes that is, by “voting with their feet.” This is seen to pressure Sub-National Governments to pay attention to the preferences of their constituents and tailor the service delivery accordingly, whilst risking the loss of tax revenues Breton (1996). This “voting with feet” is thus argued to enhance the efficiency of resource allocation by increasing the likelihood that Governments satisfy the wishes of citizens. Where geographic mobility is constrained, as in many developing and transition countries, alternative service providers such as private firms and NGOs are potentially important in providing exit options (Qian & Weingast, 1997).

2.2. Devolved Funds

The counties in Kenya have been granted a certain degree of financial autonomy with the dawn of devolution and fiscal decentralization. To support their operations, counties have to source for revenue. The sources of county revenue in Kenya include revenue generated locally, revenue received from the national government or revenue sourced externally. The sources of county revenue in Kenya are expressed in detail below. Article 209 (3) of the Constitution empowers the counties to impose two types of taxes and charges, that is, property rates and entertainment taxes. The counties may also impose charges for any services they provide in accordance with the stipulated laws. All these monies form the revenues raised by the counties from their local sources and they constitute the local revenue. If increasing own source revenues does not seem to be a particular easy thing to do, reducing expenditures is also difficult. Local government's budgets are always tight as local leaders have more ideas about things they would like to do than resources to do them. At the same time, it may be easier to undertake politically difficult measures to increase own source revenues if local leaders can simultaneously demonstrate that they are bringing their expenditures under control by seriously seeking ways to economize (Abonyo, 2003). Certainly, investors that are considering lending money to a local government will want to see evidence of fiscal responsibility, and successfully reducing expenditures is the gold standard for fiscal responsibility (Abonyo, 2003). County Governments spending can be classified into two basic types of expenditures that is discretionary and non-discretionary and all these expenditures must be funded from both funds from national government and locally generated revenues. Discretionary expenditures are those that are not mandatory to be made during the budget year while non-discretionary expenditures are those that must be made within the budget year as they have legal binding commitments such as loan repayments, salaries and compensations (Hazel, 2005).

Users Charges for utilities such as power, water and telecommunication, rental or lease agreements for facilities utilized to provide basic services for the residents have to be made during the financial year hence the demand for growing local revenues. According to Khadingala and Mitulla (2004), discretionary expenditures are expenditure that is not absolutely essential to the operations of local Government. This will include the expenditures such hiring more staff, committing to other expenditure that had not been factored at the beginning of the budget year. The thin line between discretionary and non-discretionary is equally blurred since the expenditure item can change over the year as policy change is implemented.

3. Materials and Methods

The study adopted a causal research design mainly for two reasons, first it helps in understanding which variables are the cause, and which variables are the effect and secondly, it aided in determining the nature of the relationship between the causal variables and the effect predicted. The target population was residents of six sub counties in Uasin Gishu County. From this definition, the target population for the study is the entire population of Uasin Gishu which currently stands at 622,705 persons distributed within approximately 116083 households as at 2009 national census. This study applied both the probabilistic and non-probabilistic sampling techniques. For the choice of the households' sample, cluster - simple random sampling was applied implying that each household has an equal chance of being selected for the inclusion into the sample. First the population was clustered into the administrative units implying that there are 6 clusters since Uasin Gishu has six sub-counties. Simple random sampling was then applied to select the household whom questionnaires were issued. The sample size was 383 households computed based on a formula by Cochran (1963). The study mainly utilized the primary data in its analysis. Pretesting was done in Chesumei sub county, Nandi County which did not participate in the main Study. This study adopted content validity. Factor analysis was performed to assess convergent validity. The pilot study was carried out on households in Nandi County. To ensure reliability in data collection the questionnaire was administered twice at an interval of two weeks. Reliability of the instrument was tested using Cronbach's alpha coefficient. Descriptive statistics and inferential statistics such as simple linear regressions and correlation were used to establish the relationship between the selected variables and for hypothesis testing. The regression equation of y on x includes:

$$Y = \beta_0 + \beta_1 x_1 + e \text{ Where: } X_1 = \text{Devolved Funds}$$

Y is the dependent variable, e = error term; β_0 = y intercept; β_1 = coefficients of x_1 . The study used a 1% level of significance.

4. Empirical Results

4.1. Descriptive Analysis of Food Security

The study firstly sought to examine the response of the respondents on enhancement of food security. Food security was operationalized into; sustainability, identification of root factors, agricultural practices. The mean which is a measure of central tendency was used to identify among the components of food security which was ranked first and last. Results are as shown in Table 1 below. Sustainable agricultural practices had a mean of 4.2295 being the most observed in comparison to others.

Identification of root factors such as diets, water use and food systems including both production and consumption had a mean of 4.1076 while sustainability had a mean of 4.0312.

DESCRIPTIVE STATISTICS FOR FOOD SECURITY						
N = 353	Min	Max	Mean	Std. Dev	Skewness	Kurtosis
adoption of devolved agricultural system of governance leads to sustainability which is the integral part of food security planning	2.00	5.00	4.0312	.77726	-.529	-.028
I believe that there exists a positive relationship between adoption of devolved agricultural system of governance and enhancement of food security and as a result helps in identification of root factors such as diets, water use and infrastructure that ultimately contribute to food insecurity	1.00	5.00	4.1076	.84596	-.943	1.107
adoption of devolved agricultural system of governance leads to sustainable agricultural practices and food systems including both production and consumption	1.00	5.00	4.2295	.76577	-.912	1.129
Food Security	4.00	15.00	12.3683	1.92481	-.556	.532

*Table 1: Descriptive statistics for food security
Source: Survey data, 2017*

The skewness for the composite variable food security was $-.556$, which indicates a negative distribution with an asymmetric tail extending toward more negative values. The kurtosis value was $.532$ indicating a relatively peaked distribution.

4.2. Descriptive analysis of Devolved Funds

The study also sought to examine the relationship between devolved funds and enhancement of food security. The results are as shown in Table 2 below. Incentives to farmers such as farmers' market incentives improve food security in the county had a mean of 4.1728. Management of funds and large increases in agricultural investment are needed both to raise incomes and increase the supply of food sustainably had a mean of 4.1246. Thirdly ranked was that increase in food security funded projects increase agricultural productivity and the availability and accessibility of safe and nutritious food with a mean of 4.1190 while ranked fourth was proper skills, offering good remuneration wages and funding can help protect rural, low-income families from food insecurity in the county with a mean of 4.0623. Offering incentive vouchers enhance purchasing power of low-income households and allocation of funds should be prioritized for eligible nonprofits, public private partnerships, and food program service providers in need of a one-time infusion of assistance for projects that promote self-sufficiency and food security had a mean of 3.9008 and 3.88674 respectively. Lowest ranked was the allocation of funds should be prioritized for eligible nonprofits, public private partnerships, and food program service providers in need of a one-time infusion of assistance for projects that promote self-sufficiency and food security.

DESCRIPTIVE STATISTICS FOR DEVOLVED FUNDS						
N = 353	Min	Max	Mean	Std. Dev	Skewness	Kurtosis
Allocation of funds should be prioritized for eligible nonprofits, PPPS, and food program service providers in need of a one-time infusion of assistance for projects that promote self-sufficiency and food security	1.00	5.00	3.8867	.69386	-.563	1.002
Management of funds and large increases in agricultural investment are needed both to raise incomes and increase the supply of food sustainably	1.00	5.00	4.1246	.65824	-.678	1.738
Proper skills, offering good remuneration wages and funding can help protect rural, low-income families from food insecurity in the county.	1.00	5.00	4.0623	.83023	-.866	.949
Incentives to farmers such as farmers market incentives improve food security in the county	1.00	5.00	4.1728	.76585	-.953	1.672
Increase in food security funded projects increase agricultural productivity and the availability and accessibility of safe and nutritious food	1.00	5.00	4.1190	.81708	-.914	1.273
Offering incentive vouchers enhance purchasing power of low-income households	1.00	5.00	3.9008	1.15248	-.981	.131
Composite Devolved Funds	9.00	30.00	24.2663	3.17079	-.740	1.168

*Table 2: Descriptive analysis of Devolved Funds
Source: Survey data, 2017*

The skewness value for the devolved funds was $-.740$, indicating a negative distribution of values to the left. The kurtosis value for the same was 1.168 which indicating that the values are wider spread around the mean.

4.3. Sampling Adequacy

Joppe (2000) provides that the validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. Kaiser (1974) introduced a Measure of Sampling Adequacy (MSA) of factor analytic data matrices. This is just a function of the squared elements of the 'image' matrix compared to the squares of the original correlations. The overall MSA as well as estimates for each item are found. The index is known as the Kaiser-Meyer-Olkin (KMO) index. The results from Kaiser-Mayer-Olkin measures of sampling adequacy were found to be 0.873 which is middling as per StataCorp (2013). The Bartlett's Test of Sphericity was found to be significant indicating that the sample was adequate for the research.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.873
Bartlett's Test of Sphericity	Approx. Chi-Square	2.538E3
	Df	276
	Sig.	.000

Table 3: Kaiser-Mayer-Olkin measures of sampling adequacy
Source: Survey data, 2017

4.4. Correlation Analysis of Food Security versus Devolved Funds

Karl Pearson Correlation analysis was conducted to establish where there was any significant relation between devolved funds and food security. Karl Pearson correlation coefficient establishes the strength of association between the independent variable and dependent variable at significance level of 1%. The results of the analysis areas shown in Table 3. Food security has a strong significant association with devolved funds.

Correlations			
		Foodsec	funds
Foodsec	Pearson Correlation	1	.624**
	Sig. (2-tailed)		.000
	N	353	353
Funds	Pearson Correlation	.624**	1
	Sig. (2-tailed)	.000	
	N	353	353

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4: Correlations between Food Security and Devolved Funds
Source: Survey data, 2017

4.5. Regression Analysis

Regression is a powerful technique used for predicting the unknown value of a variable from the known value of a variable. In this case, simple linear regression analysis helped predict food security from devolved funds.

4.5.1. Model summary

The results from regression analysis are as displayed below;

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.624 ^a	.389	.388	1.50635	1.678
a. Predictors: (Constant), funds					
b. Dependent Variable: Food Security					

Table 5: Model summary
Source: Survey data, 2017

The value of R square is 0.389 which means that the regression model explains 38.9% of food security from devolved funds. The Durbin-Watson's d tests the null hypothesis that the residuals are not linearly auto-correlated. The value of Durbin-Watson was at 1.678 which indicates no autocorrelation among the variables.

4.5.2. Analysis of Variance

Analysis of variance was employed to measure the differences in means between food security and devolved funds. The results are shown in the Table 6 below;

ANOVA ^b							
Model	Sum of Squares	Df	Mean Square	F	Sig.		
1	Regression	507.669	1	507.669	223.731	.000 ^a	
	Residual	796.456	351	2.269			
	Total	1304.125	352				
a. Predictors: (Constant), Funds							
b. Dependent Variable: Food Security							

Table 6: ANOVA
Source: Survey data, 2017

The F-ratio was 223.731 at 1 degree of freedom which is the variable factor. This represented the effect size of the regression model and the model is significant at 99% confidence level ($p=0.000$) indicating that devolved funds can be used to predict food security.

4.5.3. Coefficient Analysis

Coefficient analysis from simple linear regression analysis is as shown below;

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.177	.620		5.128	.000		
	Funds	.379	.025	.624	14.958	.000	1.000	1.000
a. Dependent Variable: Food Security								

Table 7: Coefficient analysis
Source: Survey data, 2017

The study had proposed null hypothesis that H_0 : Devolved funds in Uasin Gishu County has no effect on enhancement of food security. This null hypothesis was rejected implying that devolved funds have significant effect on enhancement of food security. The beta coefficient of .624 implies that devolved funds explained 62.4% change in a food security in Uasin Gishu County. The County government had increased food security funded projects that resulted into increase in agricultural productivity and the availability and accessibility of safe and nutritious food.

The County government has provided incentives to farmers such as farmers market incentives which translated to improved food security in the county. The food security funded projects had increased agricultural productivity and the availability and accessibility of safe and nutritious food. Allocation of funds had been prioritized for eligible nonprofits, public private partnerships, and food program service providers in need of a one-time infusion of assistance for projects that promote self-sufficiency and food security. Offering incentive vouchers has enhanced the purchasing power of low - income households among the households of Uasin Gishu County. These are some of the reason that informs why devolved funds enhance food security. This study disagrees with the findings postulated by Thiessen (2001) that fiscal decentralization or devolution of funds can reinforce regional inequalities as well as it does not enhance food security. On the other hand the findings of this study are in tandem with the findings of Ezcurra & Pascal (2008) who suggested that there is a negative correlation between devolution of funds and the level of food security, since devolution of funds from central government to County government generates a more balanced distribution of resources across regions. Such kind of argument has also been supported by Oates (2009) that devolution of funds contributes to food security.

5. Conclusion and Recommendations

Food security funded projects increases agricultural productivity and the availability and accessibility of safe and nutritious food. Prioritization of allocation of funds for eligible nonprofits, public private partnerships, and food program service providers promotes self-sufficiency and food security. Offering incentive vouchers enhances the purchasing power of low-income households among the households of a County.

The study recommends that the Kenyan government should build a platform to promote dialogue and cooperation among relevant institutions and programmes in all sectors with the aim of developing an extension and information services network for food security. The study suggests that a further research should be conducted to evaluate the effects of devolved agricultural system on food security using predictors of food security rather than public private partnerships, agricultural extension services, devolved staff and devolved funds.

6. References

- i. Abonyo, K.O. (2003). Strategic Business Challenges for Non - governmental Organizations in Managing Profitable Business Enterprise: A Case Study of Undugu Society of Kenya. Unpublished Master of Business Administration thesis, USIU Africa.
- ii. Breton, A. (1996). Competitive governments: an economic theory of politics and public finance. Cambridge: Cambridge University Press.

- iii. Briscoe, John and Garn, H. (1995). Financing Water Supply and Sanitation under agenda 21. *Natural Resources Forum*, 19(1): 59 - 70.
- iv. Cochran, W.G. (1963). *Sampling Techniques* (2nd Ed.). New York: John Wiley and Sons, Inc.
- v. Hazel, C. (2005). Tax Policy in Developing Countries: What can be learned from OECD Experience? *Journal of Public Economics*, 93, 855-66.
- vi. Khadingala, G., & Mitulla, W. (2004). *Kenya centralization through the devolution of Power*, Washington DC, Woodrow Wilson Centre Press.
- vii. Litvack, J., and Jessica, S. (1999). "Decentralization Briefing Notes." Washington, DC: World Bank.
- viii. Meagher, Patrick. (1999). "Cooperating Against Corruption: Governance, Collective Action, and Jurisdictional Design in Plural Societies." Mimeo. University of Maryland.
- ix. Musgrave, R.A. (1998). *The theory of public finance: a study in public economy*. New York: McGraw - Hill.
- x. Kimingi, M. J. (2014). *Integrated Small Scale Agricultural Production and Food Security in Rural Kenya: A case study of Suwerwa Location of East District*, unpublished PhD thesis, Moi University.
- xi. Oates, W. E. (2009). *Federalism and Government Finance in Quigley J M and Smolenskey. Modern Public Finance* Harvard University Press, Cambridge, 125 -151.
- xii. Ostrom, Elinor, Schroeder, L., and Wynne, S. (1993). *Institutional Incentives and Sustainable Development: Infrastructure Policies in Perspective*. West view Press.
- xiii. Paul, B., Stephen, H., Mawson, J., and Pearce, G. (2001). *Devolved approaches to local governance: policy and practice in neighbourhood management*. York Publishing Services Ltd.
- xv. Qian, Yingyi and Weingast, B. (1997). "Federalism as a Commitment to Preserving Market Incentives." *Journal of Economic Perspectives*, 11(4), 83 - 92.
- xvi. Tiebout, C.M. (1956). A Pure Theory of Local Expenditures. *The Journal of Political Economy*, 64 (5), 416 - 424.
- xvii. World Bank (2015). *World development report 2004: Making services work for the poor people*. World Bank and Oxford University Press. Washington DC.