

# EFFECT OF DEVOLUTION ON MANAGEMENT OF AGRICULTURAL EXTENSION SERVICES IN KERICHO COUNTY

<sup>1\*</sup>Joyce C. Keino, <sup>2</sup>Joash K. Kibett, <sup>3</sup>George M. Kere

<sup>1</sup>Department of Agricultural Extension and Education, University of Kabianga, Kenya

<sup>2</sup>Department of Horticulture, University of Kabianga, Kenya,

<sup>3</sup>Department of Agricultural Biosystems and Economics, University of Kabianga

\*University of Kabianga, P.O Box 2030-20200, Kericho, Kenya

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**Abstract:** The devolved governance structure in Kenya places the provision of agricultural sector services such as extension at the county level. In the current agricultural extension services dispensation, there is no clear linkage between the national and county government in terms of policy implementation and actual effect on general agricultural extension mandate. The effect of devolution on agricultural extension services have not been well understood. In order to provide clarity and enhance the understanding of the problem, this study sought to determine the effect of devolution on performance of agricultural extension service. The focus was to determine the effect of devolution on management of agricultural extension services in Kericho County, Kenya. The study employed the theory of change. Descriptive research design was used in the study. Multistage cluster sampling and simple random sampling technique were used to obtain a sample of 156 farmers from a target population of 22, 317 small-scale farmers. All the thirty (30) extension staff were involved in the study. An interview schedule, a structured questionnaire and Focus group discussion guide was designed and used to collect information from the small scale farmers, extension staff and opinion leaders in the community respectively from each Sub-County of Kericho. Data was analysed using frequencies, percentages and chi-square with the aid of SPSS computer programme version 25. The results was presented in tables, frequencies and percentages. The majority of the respondents strongly agreed that devolution has adversely affected the management of agricultural services.

**Keywords:** Devolution, Management, Agricultural extension service, small scale farmer household.

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## 1. INTRODUCTION

According to World Bank economic analysis (Government of Kenya, 2017), Kenya households that engage in agriculture contribute approximately 31.4 percent in reduction of poverty, it is the largest generator of income for both non-poor and poor rural households. According to the 19<sup>th</sup> Kenya Economic Update (2019), it shows that agriculture drives the Kenyan economy and dominates employment sector. From 2013-2017, report shows that agricultural production contributes approximately 21.9 percent to Gross Domestic Product (GDP). In 2017 agriculture employed approximately 56 percent of those who lives in the rural area. The government of Kenya aims at attaining 100% food security and nutrition to all Kenyans by 2022. Hence, agriculture is important in the achievement of presidential big four development agenda.

In Kenya Agricultural extension has been in existence since early 1900s since then it has undergone various reforms. Despite ineffective management, lack of proper coordination and poor community management that integrated policy approach of 1960s, it has shown good results and success in passing out improved maize varieties. The implementation of training and visit that was done in 1980s and 1990 has been successful in ensuring that the quality of staff via training has improved and also coming up with good extension linkages even though there are no tangible evidence of the sustainability on the effect of production of agricultural products (Gautam, 2009). Olatona and Olomola (2015), argued that devolution incorporates transfer of authority that can help in decision-making, finance, and management. In devolution, the county government can choose their own leaders, make their own investment decisions and raise their revenue.

Over the last years agricultural function has been devolved to a lower administrations of the government which is an aspiration of the third world countries. Ghana being one of the third world countries, it has tried it best to be decentralized from early 1990s during the time the country was moving to a democratic state, it also supports devolvement. In spite of the fact that the government local act that was formulated in 1993, which gives decentralization a legal framework for implementation of decentralization, to a larger extend Ghana has been practicing decentralization in which policy planning is foreseen by the national government and local governments which implement them (Ayee and Dickovick, 2010). Moving closer to devolution, its Government has done many reforms which include a Local Government Instrument of 2009, National Decentralization Action Plan of 2004, a Policy Decentralization Framework of 2010, and a 2<sup>nd</sup> Plan National Decentralization of 2012. In the year 2016, Parliament incorporated Consolidated Local Governance Bill that helped to eliminate non consistent of decentralization laws and frameworks.

According to the Government of Kenya (2010), the constitution stresses that the function of devolved governance is to ensure better delivery of services. County governments are given the mandate to be the frontline on delivery of services, to ensure that there is growth of the economy and also good practices of governance at the lower level. There has been devolvement of the public extension service at the county level that make sure that the services are taken close to the farmers and ensure they take part in increasing service delivery (Government of Kenya, 2011). This assumes that the farmers who are under the county government know their responsibilities and what they expect in return from the extension system which is devolved. The main goal is to encourage the people to know and understand the worldwide and national development concerns and the personal as well as local importance of those concerns, and to come up with their own responsibilities and rules that are just and can sustain the world (Omolo, 2010). Thus, right to information makes sure that people make up-to date decisions on issues that pertains their growth.

According to the Law of Kenya (2013), the Constitution shows the devolved governance structure. It gives powers to the National and County government. It describes the two important polices that build the organization of governance between the county and national governments. These two levels of government are different and depend on each other, their effectiveness depends on the principles of mutual cooperation and consultations. The government of Kericho County has expressed powers and mandate of self-governance. The citizens at the lower level have jurisdiction to take part in making decision on what affect agricultural extension services.

International Initiative for Impact Evaluation, (2010), showed that the efficiency and effectiveness of a technology transfer in agriculture plays an important role in its development and can better the livelihoods of the rural poor. Despite the high prices of investing in the public sector extension which as the role of passing out agricultural innovation to agricultural farmer in most of the third world countries especially Africa and Asia, agricultural output as continued to reduce overtime (Madukwe, 2006). The reasons for reduction in agricultural produce is due to the fact that there is ineffective and inefficient agricultural extension system that provide services (Rivera, 2001; Gustafson, 2002). In Kenya for instance, there has been a decline from 6.7 percent in 1977 to - 2.4 percent in 2000 of the agricultural produce (Gustafson, 2002). According to Rivera (2001), revealed that the reduction called for the need for reformation of extension to allow rolling of private sector within the year 1999 and 2000. The need for reforms were anchored on the fact that the general extension service is given by the public and private sector appropriately, which would help to achieve different agricultural goals and serve the diversity of the target population (Anandajayasekeram *et al.*, 2008, as cited in Zhou, 2010).

A study done by United Nations Population Fund Report, (2004) in Kenya revealed that monitoring and evaluation gives the managers and shareholders with continuous output on implementation, successes and difficulties in prior time to

facilitate adjustment to project operation. Monitoring & Evaluation provides daily implementation of various activities on work schedule, input, and output among others. A good monitoring and evaluation suggest enough baseline data, planning, show of performance that are realistic and include field visits, shareholders gathering, project activities documentation and reporting regularly.

The objective of devolved agricultural extension services is to actively involve the farming community in planning, coordination and efficient and transparent utilization of agricultural resources for improved livelihoods at the grass roots. Although the challenges facing agricultural extension are well documented, little is currently documented on the effect of devolution on performance of agricultural extension services as well as areas that require improvement. In Kenya, agricultural extension is fully devolved but agricultural policy and major national agricultural programmes are coordinated by the Ministry of Agriculture, Livestock, Fisheries and Cooperative at the Headquarters. The impact of this arrangement on agricultural extension is not well documented.

## 2. LITERATURE REVIEW

World Bank (2009), argues that the benefits of devolution can only be seen if those who lead have good intention to perform its functions very well. This calls for shifting of responsibilities in form of finance and revenue collection. Many third world countries have inadequate sources of resources. This looks down on their responsibility to citizens because such resources usually can be used as freedom to decision of local government, thus enabling it to deliver what the citizens demand (Faguet, 2008). Furthermore, according to a study done by Timmons (2005), found that devolution gives a stronger correlation between taxation and accountability. In contrast, this agricultural sector transfer may be used for the expenses that may not be reflective of the local demands on agricultural extension services. While some transfers are needed to attain duties that are not financed by the revenue of the county, if county agricultural sector depends much on the national government finance it will also have a problem to differentiate whether the national or the local government should be credited for the delivery of extension service. Moreover, insufficient expenditure looks down upon the ability to engage in preference matching. Secondly, for devolution to encounter an impact on making policies, policy makers at the local level should have the ability to end or start change policy (Braun, 2000). Yet, local governments do not have mandate to enforce policies since most often are shared together with the central government which further undermine responsibility (World Bank, 2009). Lastly, county governments have a good understanding of citizen needs and priorities, they mostly have insufficient capacity to implement projects and programs (Bardhan, 2002).

Most evaluations of devolution in third world countries takes much consideration on education and health with less research on the impacts and consequences of agricultural services. Similarly, agriculture is important to selected group of people probably those in the rural areas as in comparison to health and education, which have importance to everybody in the society. In that case, at sub national level than for other sectors one could have expectations that devolution would results in much difference of agricultural expenses and services.

After adopting new constitution in 2010 Kenya put across a more devolved governance structure in 2013. The responsibility of health, education and agriculture was taken care by the 47 counties. Despite the need to participation of the public and transparency in decision making over these services, there was misunderstanding between the duties of the national and county government. In turn, this brought down the accountability mechanisms. Moreover, according to World Bank, (2015), scarce funds and capacity discouraged efforts to enable them reach out to people who will be of great help to incorporate the responses into budget and planning processes. A big problem has been related to personnel management. Before devolution, there were approximately four thousand subject matter specialist in the districts (World Bank, 2014). The county government have failed to employ these extension officers at the county level, which are now in charge of extension and decided to employ new staff leading to parallel extension service system, which has led to high budgets disrupting operations and services at some counties. (World Bank, 2014).

A few empirical studies about the impact of devolving the agricultural sector on agricultural extension activities exist. Muhumed and Minja (2019) studied the “Effect of Devolution of Agricultural Sector on the Citizens’ Livelihoods in Wajir County” In their study, they sought to examine the effects of devolution of agricultural sector on food security in Wajir County. A descriptive survey was adopted in this study. The target population was small scale farmers and agricultural officers. Data was collected via questionnaires. The findings revealed that the devolution of agricultural activities

significantly and positively affects food productivity through the agricultural extension officers. The authors found that the county government provides extension services, finances, farm inputs, and credits which has significantly increased food production in Wajir. Consequently, food security and income generation have been enhanced courtesy of devolution. Mutuga, (2018) studied the “Effect of devolution of governance powers from state to county government on the fish farming enterprise in Laikipia country, Kenya.” The targeted population was fish farmers in Laikipia. Stratified sampling was used to categorize farmers into large and small scale farmers and data was randomly collected using questionnaires from sampled farmers. The results revealed that there has been a negative impact of the devolution of agricultural sectors on extension services with regards to fish farming in Laikipia County. It was found that productivity declined after agriculture was devolved as a result of the high cost of production attributed to the unavailability of fingerlings and fish feed at the local level. Besides, the government has withdrawn subsidies and extension services were declining after devolution. The findings in the above studies in Wajir and Laikipia portray a contradicting of the effects of devolving agriculture on food productivity. This shows how different countries perform differently. Therefore, it would be important to carry out similar studies in other counties; hence, the need for this study.

### 3. RESEARCH METHODOLOGY

Descriptive research design was used in the study. Multistage cluster sampling and simple random sampling technique were used to obtain a sample of 156 farmers from a target population of 22, 317 small-scale farmers. All the thirty (30) extension staff were involved in the study. An interview schedule, a structured questionnaire and Focus group discussion guide was designed and used collect information from the small scale farmers, extension staff and opinion leaders in the community respectively from each Sub-County of Kericho.

Descriptive statistics was presented using frequencies and percentages. Chi-square was used to test all the three hypotheses at significance level of 0.05  $\alpha$  level. The chi-square test showed the strength of association between independent and dependent variables. Analysed data was presented in form of tables, figures, bar charts and graphs.

In this study, the effect of devolution on the management of agricultural extension services was measured in terms of the number of extension officers in the field, improvement of services received from extension workers, provision of a safe environment for all participants, and improvement of education/extension programs. The respondents were given a likert type of questions in order to indicate the extent, in which workers have increased since devolution. Increase in extension workers is an indication of the seriousness in which the management of extension services are managed. The results are displayed in table 1

**Table 1: Increase in the number of extension workers per frequency and percentage**

	Frequency n=156	Percent
Strongly disagree	84	56.4
Disagree	44	29.3
Somehow agree	18	12.0
Agree	4	2.0
Strongly Agree	0	0.0
Total	150	99.3

**Source:** Author’s Computation from Survey Data, 2021

Table 4.3 shows that 56.4% strongly disagreed with the statement that extension workers have increased since devolution, while only 2% were of the contrary opinion. This is in agreement with the study of World Bank, (2015), who found out that since devolution there as been scarce funds discouraging efforts to increase capacity and enable them reach out to people who will be of great help to incorporate the responses into budget and planning processes. The study further argued that before devolution, there were approximately four thousand subject matter specialist in the district (World Bank, 2014).

**Table 2: Education/Extension Programmes Have Improved**

	Frequency n=156	Percent
Strongly disagree	59	39.3
Disagree	74	49.3
Somehow agree	9	6.0
Agree	8	5.3
Strongly agree	0	0
Total	150	100.0

**Source:** Author's Computation from Survey Data, 2021

Table 2 reveals that the majority 88.6% (39.3 + 49.3) disagree and strongly disagree that education/extension programmes have improved after devolution as opposed to 11.3% (5.3 + 6.0) who agreed and somehow agreed that education/extension programmes have improved. This implies that there is minimal service delivery in the selected areas. This study agrees with Harvey (2021) who found out that long-term service delivery and consistency in government programming in extension service delivery had not been fully achieved after devolution. This study also agrees with MoALF (2018) that found that failure in execution of extension functions by both county and national governments after devolution, has been largely elusive due to poor coordination mechanisms that is characterized by high duplication of responsibilities. When the key informants and opinion leaders were asked the same question, they agreed with the small-scale farmers that extension programmes have deteriorated after devolution.

The respondents were also requested to rate the extent to which extension services have improved. Extension service are important because it helps the information to reach the desired farmers on time and accurately. The results are displayed in table 3.

**Table 3: Services Received from Extension Worker have Improved as reported by small-scale farmers**

	Frequency n=156	Percent
Strongly disagree	69	46.0
Disagree	55	36.7
Somehow agree	21	14.0
Agree	5	3.3
Strongly agree	0	0
Total	150	100.0

**Source:** Author's Computation from Survey Data, 2021

Table 3 reveals that a vast majority 82.7% (46.0+36.7) strongly disagreed and disagreed with the statement that extension services from extension workers have improved after devolution. This is in contrast to a majority 17.3% (14.0 +3.3) who somehow agreed and agreed to the same statement.

The key informants were of the same opinion since the majority 60% (26.7+33.3) were of the view that devolution has not improved the involvement of farmers in planning of extension programmes after devolution. The results are indicated in table 4.

**Table 4: Services Received from Extension Worker have Improved as reported by key informants**

	Frequency n=30	Percent
Strongly disagree	8	26.7
Disagree	10	33.3
Somehow agree	4	13.3
Agree	6	20.0
Strongly agree	2	6.6
Total	30	100.0

**Source:** Author's Computation from Survey Data, 2021

Respondents were further requested to rate the extent to which a safe environment was provided to participants. A safe environment is important in extension because it enables the stakeholders to work efficiently and be health. The results are displayed in Table 4.7

**Table 5: A Safe Environment for all Participants is always provided as reported by small-scale farmers**

	Frequency n=156	Percent
Strongly disagree	51	34.0
Disagree	54	36.0
Somehow agree	30	20.0
Agree	15	10.0
Strongly agree	0	0
Total	150	100.0

**Source:** Author's Computation from Survey Data, 2021

Table 5 show that a majority, 70% (36+34) indicated that they disagreed and strongly disagreed with the statement that a safe environment is provided to the participants. This is in contrast to minority, 30% (20+10%) who somehow agreed and agreed to the statement.

The key informants were of the same opinion since the majority 63.3 % (30+33.3) were of the view that there is no improvement of safety of farmers during extension projects. The results are displayed in Table 6

**Table 6: The Safety of farmers during extension projects has improved as reported by key informants**

	Frequency n=30	Percent
Strongly disagree	9	30.0
Disagree	10	33.3
Somehow agree	3	10.0
Agree	7	23.3
Strongly agree	1	3.4
Total	30	100.0

**Source:** Author's Computation from Survey Data, 2021

This study is consistent with Mwangi and McCaslin (1994) who found that work environment that is conducive to extension staff was a key motivation factor to increased performance of extension agents in Rift valley province of Kenya. In their findings, a work environment that is characterized by good allowances and health insurance were important for motivating agents. The findings are also in agreement with the study by World Bank (2014) which showed that devolution had disrupted the critical role played by extension workers in the local communities. The county government had failed to retain the district extension workers but instead employed new officers, leading to confusion and poor service provision. As the results in Table 6 show, more than half of the respondents strongly disagreed that the number of extension officers in the field had increased since the decentralization of the agriculture function to county governments. This is a significant percentage of the population, which is an indication that the county government has to re-strategize so that they are more aware of the needs and concerns of the farmers in the villages. As mentioned, small scale farmers contribute significantly to agricultural production not only in Kenya but in sub-Saharan Africa, and thus no government can afford to ignore them. This group does not have the resources to engage private agricultural programs officers or the services of NGO's. It is up to the government to ensure that extension services reach them so that the full benefits of the devolution of agriculture can be realized.

A huge majority of those interviewed also stated that they did not feel that the services of extension workers had improved nor was there any improvement in the education and extension programs from the government (Table 6 and 7 above). At the same time, they did not feel that a safe environment was being provided for them and other stakeholders in the agriculture sector. All these issues point to a failure in agriculture policymaking at the county level. Farmers should be involved in the development of bills that affect agriculture, since it is their main economic activity. It could also be an indication that the county government is slacking and no bills or policies are being developed at the county level. If this is the case, then the devolution of agriculture is set to be a total failure since no positive strides are being made to improve this sector. The main aim of devolution was to bring services closer to the citizens but it appears this is not the case when it comes to extension services at the county level.

### Chi-square test for the null hypothesis one

**Hypothesis one:** *There is no significant effect of devolution on performance of management of agricultural extension services*

The results of objective one were further subjected to chi-square test to determine if they were significant. Table 7 shows the outcome.

**Table 7: Chi-square test for the null hypothesis of devolution**

Chi-Square Tests	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.343	3	.043
Likelihood Ratio	11.533	3	.031
Linear-by-Linear Association	5.486	1	.029
N of Valid Cases	150		

**Source:** Author's Computation from Survey Data, 2021

The results show statistical significance ( $\chi^2 = 9.343$ ,  $df=3$ ,  $p = 0.043$ ) since the alpha value was set at 0.05. We therefore reject the null hypothesis (H<sub>0</sub>) which states that there is no significant effect of devolution on performance of management of agricultural extension services and accept the alternative (H<sub>1</sub>) hypotheses that devolution significantly affect performance of management of agricultural extension services.

## 4. SUMMARY, CONCLUSION AND RECOMMENDATION

The results on the effect of devolution on performance of management of agricultural extension services. The results revealed that just 2% of the respondents agreed that the number of extension officers in the field had increased since the start of devolution, while 12.1 % somehow agreed. At the same time, 29.5 % of the respondents disagreed and 56.4 % strongly disagreed. Regarding education and extension programs in their areas, 39.3% of the respondents strongly disagreed, and 49.3% also disagreed that there had been any improvements. Only 6.0% somehow agreed and 5.3% agreed that they had witnessed improvements in education and extension programs due to devolution. The results further revealed that 46 % of the participants strongly disagreed that the services they received from extension officers had improved since the start of devolution. A similarly high number, 36.7% of those surveyed also disagreed that there had been any improvements in the services offered by extension officers. However, 3.3 % agreed while 14.0 % somehow agreed that services provided by extension officers had improved during this period. Therefore in conclusion, devolution significantly affect performance of management of agricultural extension services.

Therefore, the study recommends that The National government as well as the county government should ensure that there are no overlapping of powers and authority. This can be done by formulating more policies to separate powers and authority.

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### CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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