The Effect of Devolution of Agricultural Sector on the Citizens’ Livelihoods in Wajir County

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ABSTRACT

Devolution of government functions is one of the key moves introduced by the government, to enhance its service delivery and promote self-governance at County level. At a glance, devolution has come with both benefits and downsides, which are unique to the service/function that has been devolved. Agriculture was previously a function of the National government, under the Ministry of Agriculture. It is currently a devolved ministry, no longer under the sole control of the National government. Same as other devolved functions, it was expected that devolving the ministry of Agriculture would lead to better agricultural production at county level. Devolution Agricultural functions was expected to enhance agricultural production in the counties. The study thus sought to establish the effect of devolution of the agricultural sector on the livelihoods in Wajir County. This study was guided by the following objectives; to establish the effects of devolution of agricultural sector on the empowerment of small-scale farmers, to determine the effects of devolution of agricultural sector on incomes of households and to examine the effects of devolution of agricultural sector on food security of households in Wajir County. The study is hinged on the Sustainable Livelihood Approach. The study adopted a descriptive survey that helped in determining and reports the way things are and attempts to describe such things as possible behavior, attitudes, values, and characteristics. The study targeted 5273 small-scale farmers and agricultural officers across all Wajir sub-counties. The study sampled 372 farmers from all the Sub-Counties in Wajir. Therefore, 372 farmers and 6 agricultural officers were used making a total sample size of 378 respondents. The researcher purposively selected six agricultural officers one from each sub-county. In identifying the farmers from each sub-county, the study used simple random sampling. The study will adopt both qualitative and quantitative data. The study used questionnaires for collecting data from 372 farmers, which will be constructed based on the research objectives. The questionnaires were administered using drop and pick method; this provided farmers with enough time to answer the questions. Quantitative data was analysed using descriptive statistics such as mean, mode, percentages and standard deviation. The study used Chi-Square to establish the relationship between the variables. The study findings indicated that the effect of devolution of agricultural activities in Wajir County has significantly affected the level of food security, sources of income and empowerment among the households in the county. Due to devolution of the agricultural activities, the county government now provides extension services, funds, inputs such as fertilizers and credits for agricultural activities and that has led to an increase in food production which has greatly improved food security and enhanced income generation. The small scale farmers no longer rely on livestock farming but also crop farming. Since the study findings present a significant effect of devolution of the agricultural activities to the county level in Wajir, it recommends that the county government should invest more in some of the agricultural activities such as access to agricultural services like Plough and tractor, Borehole and dam for irrigation, Extension
services, Livestock vaccination and Disease surveillance, control, and awareness. There should also be an increase in the provision of services such as the provision of farm inputs and marketing of farm products on behalf of farmers in order to encourage more participation in agriculture by the households. In so doing, the small scale farmers in Wajir County will be more empowered, their income will improve and food security will also be enhanced.

Keywords: Devolution, Devolution of Agricultural Sector, Citizens’ Livelihoods, Wajir County

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1. INTRODUCTION

A livelihood encompasses the abilities, property (supplies, assets, and right to use) and practices needed for a way of life: a living is possible to maintain when it can withstand with and recuperate from anxieties and blows, sustain on improve its abilities and resources and give sustainable living chances for the up age group and add net value to other living at the lower and international levels in the extended and short term (Venkateswarlu, 2014). Agriculture is vital to the economies of nations across the world with approximately 70 percent of the livelihoods reliant on it. As a segment, its improvement is key to bettering the wellbeing, food security and industrialization as well as improving the global trade. The agriculture and associated activities are some of the tasks decentralized to the county governments. Given that, agricultural tasks are difficult methodological and vastly diverse, only those practices that are connected to the provision of services and delivery of material input have been decentralized (Rusch & Voland, 2016). Although, agriculture being a vital source of revenue practice for most of the disadvantaged small farmers and agricultural labors in the rural areas, the representative electorate leadership at a rural level give little consideration to bettering the state of farming either directly or indirectly (Venkateswarlu, 2014).

It has been broadly discussed that independent devolution of administration structure can spur the provision of public services to the less privileged (Faguet, 2014). Those who advocate for devolution argue that it leads to more unity between the leadership of the local administration personnel nearer to the people; therefore, enable them to comprehend their particular desires and preferences as to realistically mirror these in the developmental preparation. Devolution is also advocated for due to the decentralization of authority with sufficient influence and monetary assets carry higher clarity, liability, and effectiveness in the provision of services, especially to the less privileged and susceptible segments of the public. Devolution of agricultural activities has realized better service delivery in the United States of America. Diverse needs and preferences across the United States provided justification for the devolution, or decentralization, of many Federal Government programs to the State or local level. The move toward devolution of the U.S. agricultural policy, due to significant differences across States in such areas as commodity production, production costs, income distribution, and opportunities for off-farm work already reflects an appreciation of the gains from devolution, with some programs accommodating differences in State and regional preferences (Gundersen, Kuhn, Offutt & Morehart, 2014).
Butterfield (2010) argued that the difficulties of organizational reform of the USSR's farm sector at the local level made the USSR do something about the food problem in the short term if perestroika was going to succeed. It was argued that the results desired in the perestroika of agriculture, could be attained only through centralized economic management in favor of leasing arrangements and cooperative forms of management, both of which in large part ignore centralized decision-making processes and rely on incentives to farmers, food industry workers, and managers. It was concluded that reform at the local level was difficult because of: the level and character of education of local officials; their disposition toward the spirit of localized management; and the nature of the bureaucratic setting within which local management organizations operate but realized better agricultural production.

In Ethiopia, susceptible public to foodstuff insecurity resides in urban slums and in the dry and semi-arid areas that constitute approximately sixty percent of its entire region. A section of the residents resides in these areas, which suffer from infections, poverty, poor infrastructural development and clashes (Lind & Oringa, 2016). Famine and erratic patterns of rainfall worsen the circumstances and 47 percent of the nations’ populace largely live beneath the poverty index, (Lind & Oringa, 2016). In regions with erratic rainfall in Ethiopia, the residents have a tendency to react to the famine-associated loss of crop and livestock by integrating risky survival activities like trading their only valuable resources, removing their children from the learning institutions, and carry out income-creating practices that are detrimental to the ecosystem. The decline in food safety majorly in the drier regions has been due to erratic rainfall influencing crop and livestock efficiency. Greater degrees of undernourishment badly affect the nations’ underprivileged persons. Approximately 369,000 kids aged below 5 years are anguishing from severe underfeeding; undernourishment is a key foundation of demise involving kids aged below 5 years (Munthali & Michelo, 2015).

For the case of Uganda, the improvement in GDP is greatly linked to the improvement and growth of agriculture. Over the last two decades after sovereignty, the farming quarter, and sequentially the country’s economy, realized the largely remarkable improvement in sub-Saharan Africa at a standard proportion of 6% annually for farming and 7% for the country’s GDP. The deteriorating performance of farming in the form of its development has been one of the key issue affecting strategy makers and individuals with interests in agriculture (Floros, 2014). Agricultural performance; a key GDP pillar has alarmingly deteriorated over the post-sovereignty period with an average of 4.7% in the first 10 years to just fewer than 2% in the 90s. This drop ended with a negative growth proportion of -2.4% in 2000. As a segment that involves approximately 75% of the nation’s working force, such a drop means fewer employment opportunities, revenue and more significantly, lack of food safety for the entire population residing in the village (Munthali & Michelo, 2015).

Agriculture is the core of Kenya’s economy with a whopping yearly input of approximately 26% of the GDP with an indirect contribution of about 25% to the GDP. The segment contributes about 65% of Kenya’s cumulative exports and accounts to higher than 70% of the casual employment in the countryside, (Filmer & Fox, 2014). Thus, the farming sector is not just the pillar of Kenya’s wealth but also the source of income for most of the public in Kenya. Continuous improvement of agriculture is vital for bettering the wellbeing of the society as well as creating quick economic development. On the other hand, despite the significance of the farming sector, agriculture in Kenya over time has been largely on small scale, rain-dependent
and poorly mechanized. Moreover, farming funding and facilities have been insufficient, (Hall, Clark, & Naik, 2014).

The promulgation of Kenya’s Constitution in 2010 ushered in a new era of Kenya embracing the devolution of various sectors including agriculture. The sector is vital for making certain both food safety and improvement of Kenyans’ wellbeing. It is still the core of the economy of Kenyan, employing more than 75% of the population and accounting for more than a quarter of the country’s GDP (Biwott & Rugo, 2013). The agricultural sector has clear impacts on not less than two crucial sectors: food safety and generation of employment opportunities. This affects strongly the levels of poverty cases, the general wellbeing of Kenyans and their common living standard (Biwott & Rugo, 2013). Delegation of authority from a central charge of administration to a local charge of the administration gives the county administration greater authority over a specific area or controls that are more confined over a specific command (O'Neil, 2015). The government transfers authority for making judgments, management, and finance to independent elements of county governments (Richards & Smith, 2015). Responsibility for the provision of services is thus transferred from the national government to municipalities that elect their own leaders.

Dacks points out that devolution is hinged on the values of democracy and self-determination. The premise of this is that the national government may find it difficult to make policies and provide services to different groups of citizens living in distant places with varying geographies, climates, cultures and economic systems. Dacks argues that only local municipalities that are closer to the people can effectively govern them and provide services tailored to their needs. Self-determination necessitates that the geographically and culturally diverse societies should have a level of command over the political, financial and societal organizations that directly affect their livelihoods. Advocates of decentralization suggest that it is the most excellent meansto make certain the increase in the efficiency of public expenditure. Pro-devolution arguments by Berry, (2018), show that inter-territorial competition can result in efficiency. Furthermore, devolution enhances political participation, accountability, and transparency, resulting in better performing institutions. The net result of this will be new and innovative ways of addressing the development of the nation. Before the introduction of the devolved government in 2013, the national government had been managing the following sub-sectors of agriculture: land, manufacturing and food crops, animal farming, horticulture, aquatic farming, water, cooperatives and marketing, regional development and improvement of arid and semi-arid land (ASAL). The Agricultural Sector Development Strategy (ASDS) 2010-2020 is the countrywide strategy paper for the agriculture segment departments and stakeholders in Kenya. The paper highlights the strategy and the organizational alternatives vital for a prolific farming segment.

The policy was however formulated prior to the promulgation of the 2010 Constitution and thus it requires re-adjustment with the Constitution. For instance, the ASDS had the regions as the execution units with de-congested offices that act on the instruction from the national government but with the new constitution now county governments have been granted power to make their own decisions. Aboagye (2015) argued that devolution of governance tasks for the delivery of farming inputs and extension services will give simple access to farmers for improving farming invention. This actually assumes importance in the Kenyan perspective especially in Wajir County in the view of the disintegration of country administration’s technical services provision structure. There is evidence to show that agricultural devolution has led to improved agricultural growth in other countries such as India (Munir & Davidson, 2017). On the
other hand, no methodical pragmatic researches have been done regarding how decentralization of agricultural has improved farming services provision for attaining greater agricultural development in Arid and Semi-Arid Areas in Kenya. Since devolution, Wajir County has initiated a number of activities and projects to boost the agricultural production in the county despite the fact that the county is semi-arid. The vision of the agriculture, livestock and fisheries ministry of the county is to have an innovative, commercially-oriented and modern Agriculture and Rural Development sector. In an aim to improve the livelihoods of Wajir County Citizens and ensure food security, the county seeks to by promoting innovative, commercially oriented crop and livestock farming through creating an enabling environment, providing support services and ensuring sustainable natural resources management (Wajir County CIDP, 2013). Some of the on-going agricultural projects in the county are irrigation for crop farming by construction of mega water dam, digging of boreholes for irrigation, provision of solar and wind powered water pumps for irrigation, employ agricultural extension staff, establishment of Agricultural mechanization services Centre, installation of solar panels/windmill for Shallow wells in Wajir town and surrounding well, supply of seeds to farmers, revolving fund for farming groups, agricultural extension, training and information services, establishing fruit processing Cottage industry 1 per Sub-county, strengthen market information, construction of 1 grain stores per Sub County, establishment of livestock market yards and loading ramps and revolving fund for livestock pasture and marketing groups (Wajir County CIDP, 2013).

2. STATEMENT OF THE PROBLEM

A study conducted by Muatha, Otieno, and Nyikal (2017) on determinants of smallholder farmer’s awareness of agricultural extension devolution in Kenya revealed that farmer’s awareness of devolution of agriculture services remains below average. This, as the researchers established, resulted in low production as the farmers in Meru, where the study was conducted. From the study, it was evident that farmers lacked knowledge of what or how they are to gain from a devolved ministry of agriculture, as the change from National to County governance did not have much civic education. Being that the study focused on Meru County, there thus exists a contextual knowledge gap. The gap exists as devolution of any ministry/power to lower tiers of government allows the government representatives to tailor the devolved function to their specific needs. Hence how agriculture is devolved in Meru County and its effects, cannot be expounded and applied to any other county, especially Wajir County, which is climatically diverse from Meru County. Nwajuuba (2012) conducted a study to establish the impact of devolution of agriculture in Nigeria and established that it had led to an improvement in the livelihood of the small scale farmers in Nigeria. The study, however, presented a contextual knowledge gap since it was conducted in Nigeria. A study by Tsado and Ajayi (2014) focused on the impact of devolving agriculture in Ghana and established that prior to devolution, the country faced food insecurity challenges, however, and devolution played a significant role in improving the food security status and livelihood of the small scale farmers. Muma (2016) conducted a study to establish the effect of devolving agriculture in Nyandarua County and revealed that it has to a significant effect improved agricultural production and increased food security as well as farmers income. These studies present a knowledge gap since their findings cannot be generalized and applied to Wajir county due to differences in climate, culture, geology, economy, and policies and hence a need for this study.
3. OBJECTIVES OF THE STUDY
   i. To establish the effect of devolution of agricultural sector on the empowerment of small scale farmers in Wajir County.
   ii. To find out the impact of devolution of agriculture on household income and economic wellness, amongst farmers in Wajir County.
   iii. To investigate the role agricultural devolution plays on the maintenance of food security, in the households of Wajir County.

4. CONCEPTUAL FRAMEWORK
The conceptual framework that is used in the study is shown in Figure 1.

![Conceptual Framework Diagram]

Figure 1: Conceptual Framework

5. RESEARCH METHODOLOGY
The study used a descriptive survey design which is suitable in explaining the current phenomena as it exists (Kothari, 2010). It is also argued that a descriptive survey design explains a state of affairs and establishes a cause-effect relationship by answering questions such as what, which, when and how (Mugenda & Mugenda, 2003). To achieve this, the design supports the collection of primary data through questionnaires. Based on these arguments, this research design was suitable for this study. The study location was Wajir County in Kenya which borders Somalia on the Eastern part, as well as Ethiopia on the Northern part (KNBS, 2017). It also borders Kenyan counties such as Mandera towards the North Eastern part, Isiolo County towards the Southwestern part as well as Garissa County towards the southern region. The county is characterized by harsh climatic conditions and as a result, it is not entirely agrarian but a
majority of the people are nomads (KNBS, 2017). The county was suitable for selection because of the efforts made by the county government in the devolution of agricultural activities. Therefore, there was a need to find out in detail, how devolution of the activities has impacted on the livelihood of the residents. Hence, the study targeted all the small-scale farmers and six (6) agricultural officers across all Wajir sub-counties.

This study adopted a stratified random sampling technique to get its sample population from each Sub-county of Wajir County. With the six sub-Counties acting as the geographical strata for the study, the following formula, as prescribed by (Trochim, Donnelly and Karika, 2015) was employed to calculate the overall sample size. The study thus had a sample size of 372 farmers from the six Sub-Counties in Wajir. Therefore, a sample size of 372 farmers and 6 agricultural officers were used making a sample size of 378 respondents. Wajir County has six sub-counties; therefore the researcher purposively selected one agricultural officer from each of the sub-county. In identifying the farmers from each of the sub-county, the study used simple random sampling. The study adopted the following formula in obtaining the number of farmers from each stratum; For instance, the sample group for Wajir South would thus be: 0.071*1300=92. The study thus sampled the 372 farmers randomly, using the formula above by Cochran, to get a cluster size distributed through clustered random sampling. The researcher spearheaded the process of data collection at the pilot and main survey level. Before that, there was a need to obtain a letter from the University which was used for introduction purposes. Furthermore, a letter from the national commission for science, technology, and innovation was also obtained before the process of data collection begins. The respondents were afterward allocated enough time to respond and where clarifications were required, the researcher provided.

An interview guide was also used to collect qualitative data. For big inquiries, this instrument is suitable. Both qualitative and quantitative data were adopted and that is why the questionnaire was semi-structured with both closed and open-ended questions. In qualitative data, the researcher used the interview guide in collecting data from six agricultural officers. On the other hand, closed-ended questions in the questionnaires were used for collecting quantitative data from 372 farmers. The questionnaires were administered using drop and pick method; this provided farmers with enough time to answer the questions. Due to their convenience in the extraction of raw data, cost efficiency and achieving a large target population, the study was justified in using a questionnaire. After the collection of both quantitative and qualitative data, the quantitative data underwent the process of coding before analysis. On the other hand, the qualitative data was analysed through a thematic analysis where the main theme was picked from each of the responses given. The quantitative data was afterward analysed through descriptive statistics based on Chi-square frequencies to establish the strength of the relationships between the study variables. The Chi-Square is known for its robustness with regard to analysis of distribution of the data and its ease of computation (Trochim, Donnelly and Karika, 2015). The test also provides detailed information and is best suited for studies for which parametric assumptions cannot be met, such as this one. The Chi-Square’s flexibility in handling data from both two group and multiple group studies was also an added advantage. After analysis, the findings were presented through tables as well as pie charts, for easy interpretation.

6. RESULTS

To establish the relationship between devolution and each of the variables in the study, that is the empowerment of small scale farmers in Wajir County, incomes of households in Wajir County
and food security of households in Wajir County, chi-square analysis was used. The findings are also presented per objective as shown in the subsections that follow.

The Chi-square analysis formula that was used was:

**Table 1: Chi-Square Analysis**

\( (X^2 = E(O - E)^2/E) \). P= significance level = 0.05

<table>
<thead>
<tr>
<th></th>
<th>Small scale farmers</th>
<th>Income</th>
<th>Food security</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>239 (240.00) (0.00)</td>
<td>228 (240.00) (0.60)</td>
<td>253 (240.00) (0.70)</td>
<td>720</td>
</tr>
<tr>
<td>NO</td>
<td>73 (72.00) (0.01)</td>
<td>84 (72.00) (2.00)</td>
<td>59 (72.00) (2.35)</td>
<td>217</td>
</tr>
<tr>
<td><strong>Column Total</strong></td>
<td>312</td>
<td>312</td>
<td>312</td>
<td>936</td>
</tr>
</tbody>
</table>

Calculations for the above data.

\( (X^2 = \sum(O - E)^2/E) \)

Where \( O \) represents first row total and \( E \) represents second row total

First row calculations as per the Chi-Square Formula = 720 x 312 / 936 = 240

Second row calculations as per the Chi-Square Formula = 217 x 312 / 936 = 72

\( (X^2 = \sum(O - E)^2/E) \)

\( (239 - 240)^2/ 240 + (228 - 240)^2/ 240 + (253 - 240)^2/ 240 + (73 - 72)^2/ 72 + (84 - 72)^2/ 72 + (59- 72)^2/ 72 \)

\( X^2 = 0.00 + 0.60 + 0.70 + 0.01 + 2.00 + 2.35 \)

\( X^2 = 5.66 \)

Using Chi square table, 5.66 = 0.58

P value = 0.05 > 0.58

With the p-value (Sig = 0.58 < 0.05) indicates a strong correlation between devolution and each of the variables in the study, that is empowerment of small scale farmers in Wajir County, incomes of households in Wajir County and food security of households in Wajir County. The findings are also presented per the research objectives as shown in the sub sections that follow

The first objective of the study was to establish the effect of devolution of agricultural sector on the empowerment of small scale farmers in Wajir County. The findings indicated that devolution of the agricultural sector has had a significant effect on the empowerment of the small scale farmers in Wajir county as shown by a significant Pearson Chi-Square value of 239 (actual value 238.522) and the value of 73 (Sig = 0.01 > 0.05). The findings are consistent with Edralin and Collado (2005) who argued that devolution played a critical role in ensuring that development was spurred across the country. Devolution ensures the creation of awareness which enhances the rural settlers’ empowerment thus leading to development. The second objective of the study was to establish the effect of devolution of agricultural sector on the income of small scale farmers in Wajir County. The findings indicated that devolution of the agricultural sector has had a significant effect on the income of the small scale farmers in Wajir county as shown by a
significant Pearson Chi-Square value of 228 (Actual Value 227.834) (Sig = 0.60, < 0.05) and the value of 84 (Sig = 2.00 < 0.05). The findings are consistent with the findings of Utafiti Sera (2016) which established that increased availability of funds for the County Government of Nyandarua to invest in agriculture development enhanced employment creation in the sub-sectors such as beef production, dairy, poultry, fisheries, and horticulture thus enhancing income. The third objective of the study was to establish the effect of devolution of agricultural sector on food security of households in Wajir County. The findings indicated that devolution of the agricultural sector has had a significant effect on the food security of the small scale farmers in Wajir county as shown by a significant Pearson Chi-Square value of 253 (Actual value 253.217) (Sig = 0.7< 0.05) and the value of 59 (Sig = 2.35 < 0.05). The findings are consistent with Heintz and Pollin, 2008; Pollin et al., 2007) who indicated a strong correlation between the development of the agricultural sector via public investment through budgetary allocation and increased food production thus enhancing food security.

7. CONCLUSION

The study findings led to the conclusion that the effect of devolution of agricultural activities in Wajir County has significantly affected the level of food security, sources of income and empowerment among the households in the county. Due to devolution of the agricultural activities, the county government now provides extension services, funds, inputs such as fertilizers and credits for agricultural activities and that has led to an increase in food production which has greatly improved food security and enhanced income generation. The small scale farmers no longer rely on livestock farming but also crop farming.

8. RECOMMENDATIONS

Based on the study findings and conclusions, the study presented the following recommendations. The recommendations have been presented per the objectives of the study. As the study findings established that devolution of agricultural activities plays a significant role in spurring agricultural activities at the county level in Wajir, it recommends that the county government should invest more in acquisition of machinery that can be rented out to farmers like plows and tractors, dig boreholes in varying areas for purposes of livestock farming and establishment of irrigation schemes. The Agriculture Department of Wajir County, through their officers and local media, should encourage residents of Wajir County to diversify their agricultural practices to Zero grazing and cash crop farming. Devolution of agriculture in Wajir should entail extension services like livestock vaccination, disease surveillance, control and awareness services and more, being availed to farmers at subsidized charges, so as to upsurge agricultural production and income.

The study also established that though farmers in Wajir County are willing to engage in more farming activities, they lack the necessary funds to acquire the different farm inputs and machinery needed to scale up their agricultural practice. To this effect, the study recommends that the County government avail funding to the farmers in the area, either on an unsecured or secured basis (loans) so as to better their farming. Also, the agriculture department in Wajir County should do more financial training to farmers, to enable them to better manage the financials of their farming practice. In addition, there should be Saccos and other welfare-based unions that will give the farmers in Wajir County a collective bargaining power, to fetch better prices for their produce, both within the county, inter-county, regional and international trade. This will greatly increase the household income of farmers in Wajir County.
The study findings indicated that devolution of agriculture has led to an improvement in food security in Wajir County, through the availability of agriculture extension services. The study thus recommends that the County government of Wajir increase its involvement in agricultural activities so as to ensure that the farming households and businesses in the county are able to access agricultural services needed for the practice, so as to increase production. The increased food and livestock production will lead to a reduction in malnutrition that has plagued the county.

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