

# Challenges and Opportunities: A Holistic Examination of Subsistence Farming Under Federal Oversight in Akobo County, South Sudan

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DOI: 10.29322/IJSRP.13.12.2023.p14430

<https://dx.doi.org/10.29322/IJSRP.13.12.2023.p14430>

Paper Received Date: 16th November 2023

Paper Acceptance Date: 19th December 2023

Paper Publication Date: 26th December 2023

## Abstract

Although the federal system of government has brought the structure close to the people of Akobo County, the system is not flexible enough to accommodate the needs of the community in terms of livelihoods especially in agriculture. Livelihoods serve as the backbone for communities, particularly in Akobo County, South Sudan, where a diverse populace relies on a range of economic activities for survival. These livelihoods, however, are intricately tied to broader socio-political conditions, many of which have been upended by a seismic shift in governance structures initiated by a 2015 presidential decree. This policy transition, which increased the number of federal states from ten to twenty-eight, has thrown the existing socio-economic arrangements into flux. While this change is profound, it has not occurred in isolation. Akobo County, like much of South Sudan, continues to grapple with the repercussions of protracted civil conflicts, volatile weather conditions, and fluctuating oil prices, which together pose multifaceted challenges to the subsistence farming of its communities. It is against this backdrop that the study sought to establish how the federal system of government influences farming among the communities in Akobo County, Jonglei State. The study found that there have been little to no advancements in subsistence farming with the absence of adequate training, capacity building, policy participation, and resource provision—such as seeds and tools—by the state government. The study recommends that the state government step up its efforts and assistance to the community, emphasizing thorough training programs, larger resource distribution, and proactive policy engagement that attends to the particular requirements of subsistence farmers.

**Key Words:** *Federal Government System, Subsistence Farming, Capacity Building, Akobo County, Jonglei State, South Sudan*

## Introduction

Different academics and scholars defined the term "federalism, depending on the setting and place." Nivola (2005) defined federalism as a political system that allows for a significant amount of provisional or regional self-government, and presumably provides rulers and subjects with a class of citizenship that protects their liberties and provides a flexible platform for responding to their problems. In most cases, nations are faced with stark choices to allow to federate or govern themselves or else risk national dissolution as in the case of South Sudan in 2011. The reforms introduced in Africa through decentralization don't always deliver as expected (Erk, 2015). In some instances, both devolution and federation are intertwined. For decades, the term "federalism" has attracted substantial scholarly attention as a system of government intending to increase against the tide regional fragmentation in modern communities (Kalu and Bing, 2016). The known federal countries like the USA, India, Brazil, South Africa, Canada, and Australia are more pressing race and identity with the agitation of minority ethnic groups in Nigeria and Russia with Nigeria to some extent base on an appropriate revenue formula sharing. There are countries like Ethiopia, Venezuela, Nepal, Russia that concentrate on centralization of power and some demanding self-determination through secession South Sudan in 2011, Pakistan, the Russian Federation, Canada, and Spain with some countries succeeding in becoming federal and independent states. In Kenya, there is purely a devolution system of government is comprised of forty-seven (47) Counties headed by a Governor whereas in South Sudan it is a decentralized system of government comprised of ten (10) states and seventy-nine counties headed by governors and county commissioners respectively. In many third-world countries, South Sudan included, the majority of people adjust to intricate and diverse livelihoods and coping strategies. The term livelihood is defined as a means of living or survival.

South Sudan has a federal and decentralized federal government. Due to its remoteness and underdevelopment, there was little documentation for Southern Sudan's history until the entrance of Turkey in Sudan, according to Lupai (2013). Under the Turco-

Egyptian Sudan, the southern provinces of Bahr Al Ghazal, Equatoria, and Upper Nile are constituted, garrisoned, and managed separately, as if they were colonies (1821-85). The Anglo-Egyptian Condominium is a joint venture between Britain and Egypt (1899-1955). The three southern provinces are also run separately by governors who report to the north's central government. From 1956 to 1972, the Northern provinces were classified as colonies and were handled independently. The southern provinces, on the other hand, shared one fate: they had been sources of slaves for the North, resulting in extreme marginalization. South Sudan recently emerged from an armed struggle that took more than 50 years that ended with the secession of South Sudan from Sudan through an internationally supervised referendum. The government of South Sudan inherits 10 States with 79 counties from Sudan on 9th July 2011. Furthermore, on October 15th, 2015 South Sudan's President issued a republican decree creating 32 states out of the former 10 states from Greater of Upper Nile, Equatoria, and Bhar Al-Ghazal provinces that had existed since 1992. The establishment of thirty-two (32) states was termed as one of the latest events that the country underwent (Schomerus, 2016). For centuries, the Eastern part of the river Nile has been home to the communities whose life revolved around small-scale farming, cattle rearing, for social, economic, and political matters. Over the years, the inhabitants practiced different kinds of livelihoods and cultures. South Sudan is a multi-ethnic country comprised of 64 tribes spread across the country with settlements based on economic activities.

The communities in Jonglei State found themselves in a whole different environment with the introduction of federalism and the creation of administrative units coupled with geo-political boundaries, emerging towns, and urban centers. In this world's youngest, it is important to have these issues addressed through a comprehensive and widely acceptable federal policy, which bring along full political, social, economic, and environmental rewards to the respective member state pastoral communities within the IGAD and EAC region. In effect, there is a need for more concerted effort and commitments from the South Sudan government to implement an equal federal governing system to guarantee the sustainability of community livelihoods. According to John (2014), South Sudan never took part in national issues until 1947 when they participated Juba conference. From that time South Sudanese civilians were never consulted about the governance issue until 2011 when the South Sudanese participated in an internationally supervised referendum where South Sudan was given a chance to decide either to remain in Sudan or separate from Sudan and become an independent State, the referendum results favor secession from Sudan on 9th July 2011 South Sudan became the world newest nation.

When South Sudan attained independence in 2011, only 4.5 percent of the available land was under cultivation, according to FAO (2015). South Sudan's agriculture has suffered greatly as a result of decades of civil strife. Berti et al. (2004) discovered that determining the relationship between agricultural production and nutritional outcomes is difficult. This is due to poor study design as well as a variety of kinds of capital, including financial and human capital, that may be impacted throughout agricultural production and, as a result, have an impact on nutrition. Agricultural interventions, for example, could result in an increase in agricultural-based household income, or an increase in agricultural skills that could help people enhance their agricultural-based household income indirectly, or both (Berti et al., 2004).

## Literature Review

Davidova et al. (2012) state that significant discussions about agricultural earnings and livelihoods are sparked by the presence of subsistence and semi-subsistence farming (SF and SSF). It is too limited to concentrate only on agricultural cash profits when discussing livelihoods because farm households may have several sources of income and non-marketed agricultural products may meet a sizable portion of the food needs of impoverished farming households. Olsson & Jerneck (2010) claim that one billion vulnerable subsistence farmers in the global south rely on precarious livelihoods that require adaptation to the effects of climate change. Their combined usage of fuelwood and land use simultaneously produces a significant amount of greenhouse gas emissions. The promotion of synergies between mitigation and adaptation to climate change need to be a top priority. According to Olsson & Jerneck (2010), results can be expanded upon, transferred to, and evaluated in comparable contexts because sub-Saharan areas are impacted by drought, flooding, land degradation, illnesses, and ongoing poverty. In their intervention research, Olsson & Jerneck (2010) transformed peasant farmers from vulnerable victims into agents battling livelihood pressures and the effects of climate change, all the while seeking numerous synergies of adaptation, mitigation, and social change using sustainability science.

Since most people who suffer from chronic hunger reside in rural regions, helping impoverished farmers market their produce more effectively is a practical way to combat poverty and hunger (Faiz, Wang, & Bennett, 2012). In agrarian markets, rural roads lessen the monopoly power of intermediaries (middlemen), boost agricultural output, and lower input prices. Growing rural earnings and a wider range of work options lead to higher purchasing power and improved food security. Rural roads facilitate work opportunities and can generate jobs through labor-intensive construction and upkeep.

According to Onakuse (2012) the contributions of subsistence farming to agricultural development and food security in Nigeria are significant. Subsistence agriculture employs about two-thirds of the total labor force in Nigeria and provides a livelihood for the majority of the rural population. It plays a crucial role in ensuring food security by producing food for local consumption. The contrast is evident in Nepal. The government's vision for a complete shift to commercial agriculture contrasts with the reality of

predominantly subsistence-based farming in Nepal. The majority of households are integrated into markets but still rely on subsistence production for their own consumption. The agricultural structure in Nepal is characterized by smallholding families producing a variety of crops for self-consumption, with only a small portion of land dedicated to cash crops (Holmelin, 2021).

Sorgho et al., (2021) contend that the government of Burkina Faso provides support to farmers in rural areas through various services and programs. One of the main sources of support is the agricultural extension service, which offers guidance and assistance to farmers in improving their farming practices. This includes providing information on crop selection, soil management, pest control, and other agricultural techniques. While the government provides support to farmers, the level and consistency of this support may vary. Siphesihle & Lelethu, (2020) concluded that several factors influence subsistence farming in rural areas of Nyandeni Local Municipality. The factors that were found to have a positive relationship with subsistence farming include education, extension services, household size, farming experience, and income. Siphesihle & Lelethu, (2020) recommended that the government should provide empowerment and training services to increase the participation of women and youth in farming.

According to Mbatha, Mnguni, and Mubecua (2021), subsistence farming is a major approach used by rural populations in South Africa to enhance their standard of living. By guaranteeing food security, this livelihood model has the ability to end hunger and poverty. Mbatha et al. (2021) recognized the precarious condition of subsistence farming in protecting South African rural communities from hazards and patterns brought about by the poverty cycle by employing the Sustainable Livelihood Approach. This is due to the fact that food instability and hunger presently affect the vast majority of South Africans. According to Mbatha et al. (2021), while this method of subsistence farming is unsustainable in the face of climate change, rural communities also face other challenges, such as limited credit availability, low educational attainment, and ignorance of novel agricultural practices that could boost farm productivity. Additionally, there is a labor skills gap that could jeopardize the sustainability and continuation of subsistence farming. According to Mbatha et al. (2021), local development institutions should offer training courses on how to employ livelihood strategies to help rural populations improve their skill sets.

Morton (2007) argues that "subsistence" or "smallholder" farmers—people primarily found in developing nations—will bear the brunt of some of the most significant effects of climate change. Their predominately tropical location and a number of socioeconomic, demographic, and legislative tendencies that limit their ability to adapt to change make them vulnerable to climate change. One group of persons particularly susceptible to the current climate fluctuation are subsistence farmers, according to Thorlakson & Neufeldt (2012). Warmer temperatures, more variable rainfall, and an increase in the intensity and frequency of extreme weather events are all predicted effects of climate change, according to climate models.

Siphesihle & Lelethu (2020) examine several farming typologies at the home level while concentrating on the various elements of agricultural transformation. Households can become more desirable farm typologies through the process of smallholder commercialization, which can help them attain food security and lower poverty. The results indicate that households in the research area fall into one of four major farm typologies: below-subsistence, subsistence, constant improving, and commercial level farm typologies, depending on the production target of the households. Topography, animal holdings, and irrigation are the factors with a high significance level that, when used in an ordered logit regression model, indicate which households go from a below-subsistence level to a commercial level. The size, fragmentation, and non-farm revenue of farmlands are other elements that influence the transition of smallholder agriculture. Furthermore, the findings indicate that households have been unable to transition to smallholder commercialization due to weak institutions, limited access to markets and credit, inadequate infrastructure, poor soil fertility, and land degradation (Siphesihle & Lelethu, 2020).

Some study shows that agricultural activities and the food system are ones of important determinants and factors of nutrition and public health (Kanter & Wall, 2014). This has attracted calls for policy development because many scholars and experts that recognize the need for agriculture and food system guidelines and program intervention to solve nutrition (Gillespie & Margetts, 2013). With the introduction of effective policies and support of household livelihoods strategies on the ground, a system of incentive, production, and consumption decisions of agriculture output or produce, developments are sustainable. Livestock is also an accumulation strategy for farmers to access the limited financial services in rural areas. This is also because animals' depreciation rate is minimal and they can easily be put to sale to cope with the uncertainty IGAD surveys, etc. (Rahmato, 1991 and Ssentamu, 1995).

The only challenging fact about this strategy is that it is not sustainable to farmers, agro-pastoralist, and pastoralists particularly in times of drought (All Africa.com.2010, Blench and Marriage, 1999). Even the constitution of the Republic granted South Sudanese nationals equal right to job opportunity, the federal governing system constitution through local government Act 2008 which is still under the interim constitution of the Republic of South Sudan. With such legislation enacted or amended then without the formal employment act and level of illiteracy which stands at 73 and literacy level stands at 27% (MoHE, 2017).

Out of the 11.3 million population of South Sudan, roughly eighty-three percent (83%) of the population reside in rural areas and depend on agricultural-related for their livelihoods. Additionally, although there is no census data on nomadic pastoralists, it is estimated that 67% of the South Sudanese population are agro-pastoralists and pure pastoralists (Focier, 2016). In the recent past, the pastoralists have started to lose their grazing land to urbanization thanks to a government development policy that has empowered authorities to curb the movement of cattle keepers commonly known as seasonal migration.

According to FAO, IFAD, and IGAD, the introduction of ploughing animals or cattle has reduced human power/drudgery thus increasing on land and labor productivity as well as linkages between livestock and livelihoods and this has contributed to a 30% increment in GDP (Behnke, 2010). However, it's not prudent to under at look the potential risk of being unappreciated as this one is a few potential relationships between livestock and livelihood (Mutagubya & Starkey, 1992). Livestock also contributes to the creation of social capital as a way of sharing, lending animals in poor households. It also cements social networks and community level obligations such as paying for dowry and bride, funeral expenses, emergency needs of friends and neighbors thus promoting ties, trust, norms, and social networks for rural households. Though no systematic findings that livestock as an important component of social networks, connects to rural households and for the IGAD region.

Nevertheless, the society's livelihood has improved on the efficiency of society coordination actions (Heffernan, 2004; Coast, 2006). The means of livelihood that typically prevail both within and between households are highly diverse, with a portion of livelihoods derived from farming, a portion of livelihoods derived from migrant labor performed by absent household members in urban or rural areas, and a portion of livelihood derived from a variety of other activities. In the exemplary text of rural livelihoods problem and answers, both official and informal elements of economic work are strongly stated (Bernstein et al., 1992). The acceptance of businessmen and women to engage in various entrepreneurial endeavors is symmetrically influenced by economic incentives. The link between an individual's inner desire and his or her desire for financial gain has a significant impact on the development of entrepreneurial skills.

Despite independence, continuing tribal, communal, farmers, and pastoralist conflict within its borders, and the remaining devastation from decades of war with Sudan, the country has suffered critical humanitarian and development challenges (Forcier, 2016). The communities are known for constant mobility in search of more water and green pasture for their livestock and that has become their culture and part of their life. However, on 6th April 2015, the presidential decree was issued ordering cattle keepers to stop chasing water and green pasture and move back to their States with immediate effect. The pastoralist community in Jonglei state is not only losing its livelihoods in form of livestock to cattle rustlers and armed groups but to also drought, flood, and diseases; from these predicaments, pastoralist is also faced with limited grazing lands, contamination of grazing fields by unexploded ordinance.

Despite the wide array of literature on South Sudan's agricultural sector, there is a noticeable absence of research explicitly investigating the influence of the federal system of government on subsistence farming in Akobo County, Jonglei State. Studies are needed that directly assess the impacts of federal policies and programs on local farming practices and outcomes. Rahmato (1991) and Ssentamu (1995) note the importance of livestock as a financial asset in rural communities, but also point out that reliance on livestock is not sustainable in times of drought. Further research is needed to understand how to make this strategy more resilient to environmental and other shocks. The decree ordering cattle keepers to stop chasing water and green pasture and move back to their states with immediate effect has potentially far-reaching implications. However, research is lacking on the decree's impacts on pastoralist communities in Jonglei state. Forcier (2016) indicates that despite achieving independence, South Sudan is still grappling with tribal, communal, and farmer-pastoralist conflicts, as well as the remnants of decades-long war with Sudan. More research is needed to understand the extent and nature of these disruptions, particularly in the context of subsistence farming. The literature highlights the diversity of livelihood strategies in rural areas, including farming, migrant labor, and various other activities (Bernstein et al., 1992). However, research is scant on how the federal system of government influences these diverse livelihood strategies, particularly in Akobo County, Jonglei State.

## Methods

The study used Theory of Federalism championed by three scholars looking at it from different angles K. C Wheare championed federalism from a legal point of view, W. Livingston championed federalism from a sociological as process view and A. Etzoini from a political point of view as power. K. C Wheare in his conclusion said, the need for a federal system is driven by the following six factors. The sense of military insecurity, the need for common defense purpose, and the desire for independence from foreign powers. They noticed that only through union independence can be achieved. Hope for economic advantage from the union and some political associations of the community concerns are addressed before their federal union which is determined by geographical neighborhood and similarity of political institutions. Akindele & Olaopa (2017) theory of federalism is a political arrangement that put forward for adoption on the practical realization of the principle of democracy in Nigeria and other countries in the world. There is also layer-cake federalism or a divided federal, where the state governments are clearly defined in terms of executing their powers

without any interference from the federal government. This model is believed to perfectly fit well into a narrative explanation of K. C Wheare who defined federalism as a mean allocating power with the view that State and federal governments are within the sphere for easy coordination and are independent to some extent. This model has been rejected by revisionist scholars such as Daniel Elaza, Morton Grodzins, and Jane Perry who refer to dual federalism as a conflictual model of federalism, the revisionist's argument is based on cooperative rather than conflictual relationships among the levels of government. Vile (1961:3) focuses upon the interdependence of all units of government within the country Structural Functionalism Theory by Emile Durkheim (1897) and Talcott Parsons (1951) which underscores that society is a complex system whose components cooperate to foster stability and unity. Social structures, which are comparatively consistent social behavior patterns, direct people's lives. Social institutions are supposed to function as the organs that maintain and reproduce society, which is viewed as an organism. The structure of each social group serves a social purpose or impacts the function of society. For instance, education promotes socialization and learning, two very important goals.

The study was conducted in Akobo County, in South Sudan's Jonglei State. You can find the area in the northeast corner of the state, next to other parts of Jonglei and Ethiopia. It's 450 km from Juba, the main city of South Sudan. This place uses the same time as Central Africa, which is two hours ahead of UTC. The latest count from 2020 says around 225,439 people live in Akobo County.

The 2020 National Statistics Bureau of Standard (NSBS) population projection estimated Akobo County population to be 225,439. For the purpose of this study, 225,439 was used as the right study population. However, it is impossible to study the whole population but this study applied the (Krejcie and Morgan, 1970) formula to determine the study population 225,439 and sampling size of 384 respectively.

To draw insights from respondents the study used questionnaires and key informant interviews. The approach of the study was based on a descriptive research design, which is very useful for getting an overview of the current circumstances and viewpoints about subsistence farming in Jonglei state. The utilization of both quantitative and qualitative data was flexible with descriptive research design, allowing for a multi-dimensional investigation of the phenomena (Mugenda & Mugenda, 2003). Feedback from the research supervisors was incorporated for consistency and relevancy of the questionnaires as the data collection instrument. The study questionnaires were sent for final correction and review by the supervisors before distributing to participants. To improve the validity of this study, the researcher studied the tools with help of the supervisors and other experts in the field whose expert opinions and suggestions are incorporated before the pre-testing was done and that gave room for adjustment or corrections to the tools and instruments. The quantitative data derived from the questionnaires were analyzed using the Statistical Package for the Social Sciences (SPSS), version 26. Descriptive statistics, including percentages and frequencies, were computed to provide a summary overview of the collected data. Inferential statistical techniques were also employed to examine the relationships among the variables federal system and subsistence farming

## **Results**

### **The Federal System of Government and Subsistence Farming**

The study's objective sought to establish how the federal system of government influences farming among the communities in Akobo County, Jonglei State. To garner in-depth responses, we deployed a carefully designed questionnaire, utilizing a 5-point Likert scale to gauge the perceived influence of the federal government. This scale provided respondents with the ability to express a range of viewpoints, from a 'Very High' influence (indicated by a score of 1), 'High' influence (scored as 2), 'Neutral' stance (scored by a 3), 'Minimal' influence (scored by a 4), to 'Very Minimal' influence (scored by a 5).

### **The level of improvement in subsistence farming**

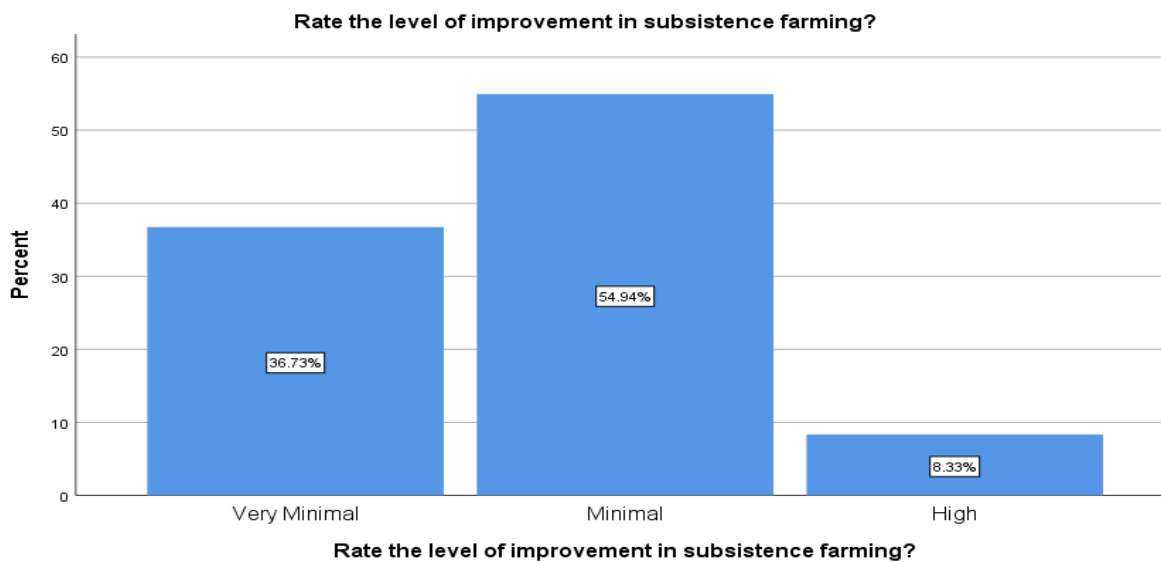


Figure 1: Bar-graph on the level of improvement in subsistence farming  
Source, Researcher (2023)

On the level of improvement in subsistence farming, 36.73% selected very minimal, 54.94% selected minimal while 8.33% selected high. Over one-third (36.73%) of the respondents believe that subsistence farming has experienced very minimal improvement. This indicates that a significant portion of the surveyed population does not see substantial progress or change in this area. More than half of the respondents (54.94%) selected minimal improvement as their response. This indicates that while they may acknowledge some progress in subsistence farming, they still consider it to be quite limited. A small percentage of respondents (8.33%) believe that there has been a high level of improvement in subsistence farming. This group represents a minority opinion in the surveyed population, showing that the majority does not perceive significant progress in this area. The majority of respondents (91.67%) perceive only minimal or very minimal improvement in subsistence farming. This shows that there is a general consensus among the surveyed population that more efforts and interventions may be necessary to enhance the overall state of subsistence farming.

The research exposes a significant disparity between the theoretical foundations of federalism and its practical implementations, particularly in relation to subsistence farming in South Sudan's Jonglei State's Akobo County. The general purpose of federal systems is to facilitate experimentation with policies and customized solutions at the state or local level (Alexander Hamilton, James Madison, and George Washington). However, a vast majority of participants, at 91.67%, believe that there has been little to no progress in subsistence farming. Federalism is frequently praised for its ability to accommodate regional variations and requirements, particularly in multilingual and multiethnic communities (Lanre, 2017; Jenna, Eskridge & Ferejohn, 1999). Our research, however, indicates that the decentralization of authority may not have the desired impact of improving subsistence farmers' standard of living. The gap might be caused by the absence of community involvement in the formulation and application of policies, a worry expressed in the literature that has already been written on South Sudan (Paleker, 2006).

The findings reveal a startling discrepancy between the official construction of federal systems intended to support local administration and the perception of rather minor progress. It is crucial to inquire as to the cause of this disjunction. Does this indicate a lack of understanding or do these systems not work as well as they should? This necessitates the use of evidence in policymaking, which is something that has been stressed in more general literature but may not be present in the particular instance of South Sudan (Kanter & Wall, 2014; Gillespie & Margetts, 2013). The function of resilience and environment in federal systems is another aspect found in the literature now under publication. For example, Rahmato (1991) and Ssentamu (1995) pointed out that during droughts, depending solely on livestock is unsustainable. Given that most people believe that subsistence farming has not improved much, this raises concerns about how flexible federal systems are to deal with regional environmental issues and whether or not they support resilient livelihood strategies.

While social capital is acknowledged as being important for rural livelihoods in the literature (Heffernan, 2004; Coast, 2006), our research shows that the federal system has little effect on this front. In Akobo County, it seems that the potential of federalism to increase social capital through adjusting policies to local requirements and encouraging community involvement is either unrealized or misused. Forcier (2016) points out that persistent disputes between farmers and pastoralists, as well as across tribes, may exacerbate this. In light of these startling results, more thorough research is desperately needed to determine why federalism isn't

improving subsistence farming in Akobo County as predicted. Research on the effectiveness of federal institutions in resolving particular local concerns and how they affect different sectors, such as agriculture, is lacking in order to make more informed judgments that are specific to the area, officials should also take the opinions of the local populations into account.

### The frequency of state government training and capacity building to the local subsistence farming.

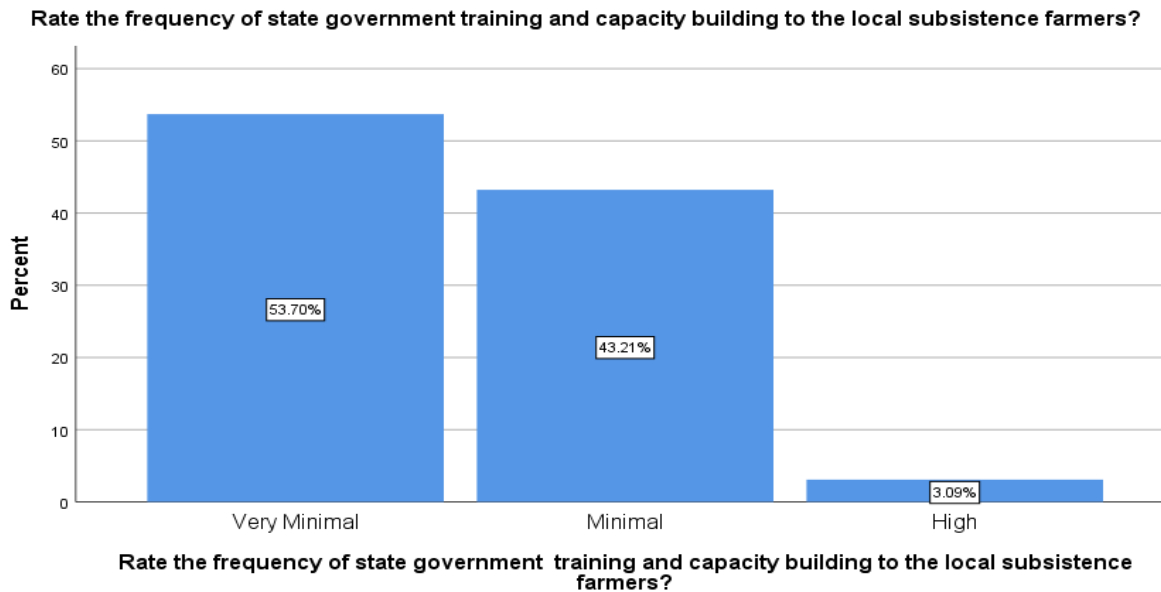


Figure 2: Bar-graph on the frequency of state government training on the local subsistence farming  
Source, Researcher (2023)

On the frequency of state government training and capacity building to the local subsistence farmers, 53.70% selected very minimal, 43.21% selected minimal, and 3.09% selected high. The majority (53.70%) of respondents indicated that they perceive the state government's training and capacity building efforts for local subsistence farmers as very minimal. This indicates that more than half of the respondents believe the government is providing insufficient support in this area. 43.21% of respondents chose the minimal category, indicating that they also perceive the state government's efforts as lacking, albeit to a lesser extent than the "very minimal" group. 3.09% of respondents selected the high category, indicating that they perceive the state government's training and capacity building efforts for local subsistence farmers as adequate or substantial. This is a small proportion of respondents compared to the other two categories. The findings of this survey indicate that a majority of respondents (96.91%) feel that the state government's efforts to provide training and capacity building to local subsistence farmers are inadequate.

The results of our survey reveal a stark contrast between the perceived lack of support for subsistence farming in Akobo County, Jonglei State, South Sudan, and the theoretical advantages of a federal system, which ideally should be adaptable enough to meet local needs. More specifically, 96.91% of respondents believe that there is insufficient training and capacity-building provided by the state government to nearby subsistence farmers. Our research indicates that while federalism is praised for its ability to bring governance closer to the people, this theoretical benefit is not being effectively translated into increased capacity in practice. Only when combined with sufficient resources and focused activity can decentralized systems improve governance (Litvack, Ahmad & Bird, 1998; Olowu & Wunsch, 2004). As a result, a lack of discernible development could indicate that resources are not being allocated appropriately, local governments lack the necessary expertise, or state policies are insufficient. A sizable fraction of respondents believe that the state government makes little to no effort to train and build capacity. This indicates that policies that attempt to achieve these goals are either poorly executed, underfunded, or not sufficiently communicated to the intended audiences (Lipsky, 1980; Hill & Hupe, 2009). It is striking how few people—3.09%—feel that proper training and assistance are being given. This begs the questions of what makes their experiences unique and whether they are scalable approaches.

It's important to remember that prior studies have emphasized how crucial it is to take gender variations into account while developing capacity for agriculture (Quisumbing & Pandolfelli, 2009). Even though we did not separate data according to gender in our survey, it would be interesting to find out if male and female farmers have different opinions about government help. This feature might reveal important information for developing more egalitarian policies. The survey's findings about the inadequate assistance for training and capacity-building may have long-term effects on the viability of subsistence farming. Inadequate training

may lead to antiquated or hazardous farming methods, which could have a negative impact on environmental sustainability and productivity (Altieri, 1995; Pannell et al., 2014).

### State government policies, training and capacity building for subsistence farmers

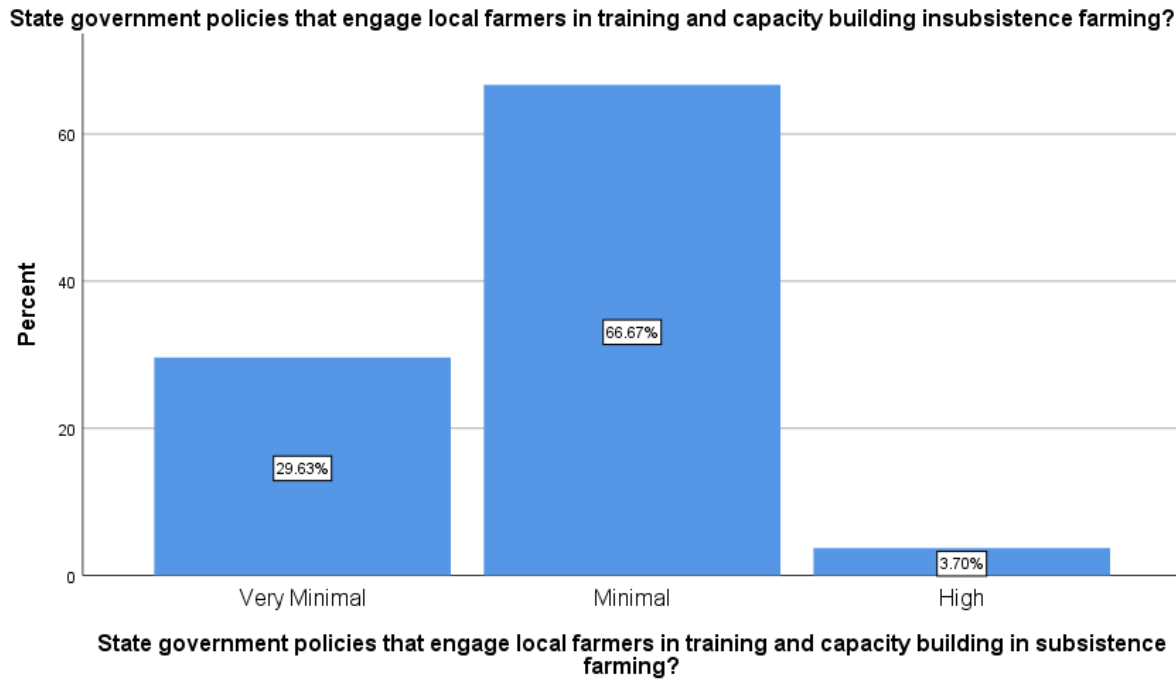


Figure 3: State policies in training and capacity building  
Source, Researcher (2023)

On the number of state government policies that engage local farmers in training and capacity building in subsistence in farming 29.63% selected very minimal, 66.67% selected minimal and 3.70% selected high. Majority, 66.67%, of respondents indicated that they perceive the number of state government policies that engage local farmers in training and capacity building in subsistence farming as minimal. This indicates that the majority of respondents believe the government has implemented a limited number of policies to support local subsistence farmers. A significant proportion, 29.63%, of respondents chose the very minimal category, indicating that they perceive an even lower number of state government policies that engage local farmers in training and capacity building in subsistence farming. A small percentage, only 3.70%, of respondents selected the high category, indicating that they perceive a high number of state government policies that engage local farmers in training and capacity building in subsistence farming. A majority of respondents (96.30%) feel that there is an inadequate number of state government policies engaging local farmers in training and capacity building for subsistence farming.

The results show that a vast majority of respondents (96.30%) think there aren't enough state government programs focused on subsistence farming training and capacity building. These results are consistent with the larger body of scholarly literature, which suggests that while state and federal institutions may differ in their theoretical commitment to strengthening local communities, their practical application frequently lags behind. For instance, the real degree of official support appears to be modest in South Sudan, despite the country's great agricultural potential and the fact that the majority of its people practices pastoralism or subsistence farming (Onakuse, 2012; FAO, 2015; Forcier, 2016). This potential-reality conflict means that there is a significant policy gap that has to be addressed. The findings support research that suggests federal systems have the theoretical capacity to provide context-sensitive, localized solutions (Kālu and Bing, 2016; Majekodunmi, 2015), but that actual implementation frequently falls behind (Paleker, 2006). These feelings of insufficiency might also point to a mismatch between local needs and federal, state, and municipal priorities, which would support some of the research gaps pointed out in literature analysis. In places like South Sudan's Jonglei State's Akobo County, where most people live off subsistence farming, a deficiency of focused state policies for capacity building can make vulnerabilities and inefficiencies already present worse. In sharp contrast, the government of Burkina Faso actively assists farmers there by providing extension services (Sorgho et al., 2021). The results also indicate new directions



for investigation, particularly in figuring out how federal laws and initiatives affect local farming methods and results—a topic that has been mostly absent from previous studies. As noted by Rahmato (1991) and Ssentamu (1995), this could be essential for addressing identified research gaps, particularly how to make livelihood methods more adaptable to shocks like drought. In conclusion, the survey data offer an unbiased, practical viewpoint that deepens our comprehension of how state governance and federalism promote subsistence farming. As stated in the extensive literature analysis, the perceived lack of training and capacity building provided by state government policies highlights the necessity for policy reforms that are in line with the variety of livelihood methods used by rural populations.

### Level of state government support to local farmers on seeds and tools.

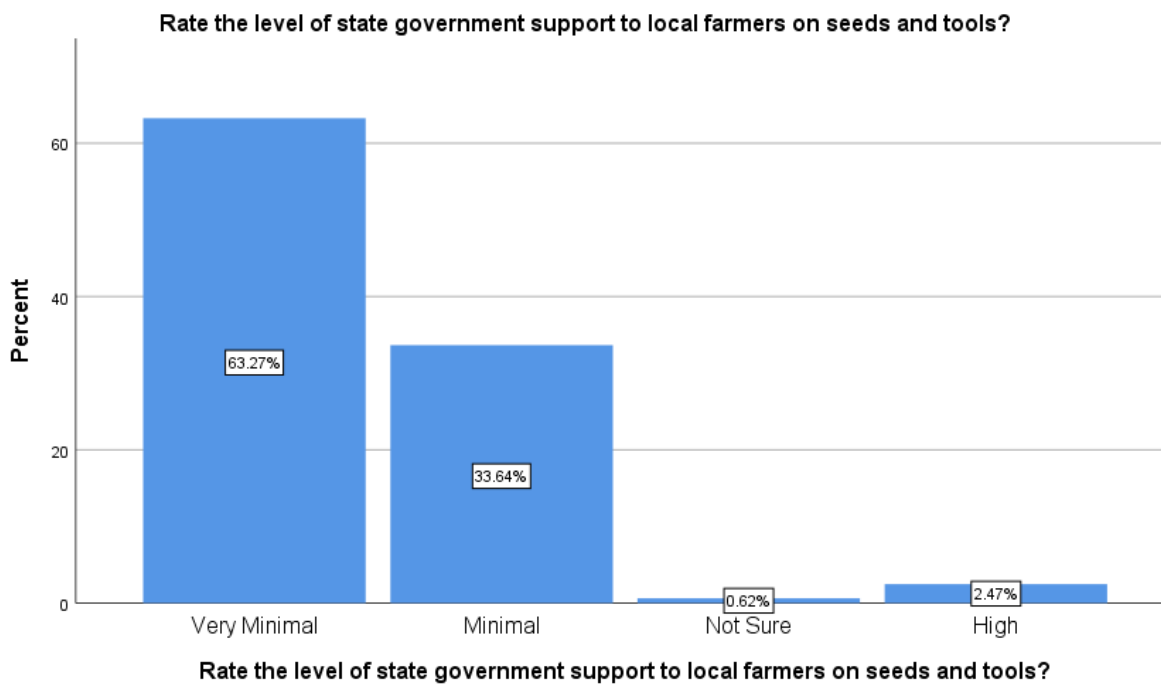


Figure 4: State support on seeds and tools  
Source, Researcher (2023)

When asked to rate the level of state government support to local farmers on seeds and tools, 63.27% selected very minimal, 33.64% selected minimal, 0.62% selected not sure while 2.47% selected high. Majority, 63.27%, of respondents indicated that they perceive the level of state government support for local farmers in terms of seeds and tools as very minimal. This indicates that the majority of respondents believe the government is providing insufficient support in this area. A significant proportion, 33.64%, of respondents chose the minimal category, indicating that they also perceive the level of state government support for local farmers in terms of seeds and tools as lacking, albeit to a lesser extent than the "very minimal" group. Only 2.47% of respondents selected the high category, indicating that they perceive the state government's support for local farmers in terms of seeds and tools as adequate or substantial. A negligible 0.62% of respondents selected the not sure category, which implies that they are uncertain about the level of state government support for local farmers in terms of seeds and tools. The results of this survey indicate that a large majority of respondents (96.91%) feel that the level of state government support provided to local farmers for seeds and tools is inadequate.

Given the literature review on the importance of federal systems in agricultural growth and livelihoods, the results of your poll provide an insightful analysis of the ways in which state government policies—or lack thereof—affect local farmers' access to seeds and tools. The findings are striking: a resounding majority of respondents (96.91%) feel that the state government does not go far enough in helping local farmers by supplying them with tools and seeds. These results support more general worries expressed in the literature on the discrepancy between the implementation and intent of policies, especially when it comes to federal systems. It is theoretically possible for both federal and state governments to implement context-specific, localized policies that are intended to improve rural livelihoods and agricultural productivity (Kālu & Bing, 2016; Majekodunmi, 2015). But as the results and earlier research (Onakuse, 2012; FAO, 2015; Forcier, 2016) indicate, there appears to be a vacuum in the real assistance given to farmers, particularly in vital areas like seeds and tools. Since seeds and tools are essential to agricultural output, their undersupply is a serious problem. Farmers cannot produce at their best without sufficient seeds and equipment, which has repercussions for social stability, economic growth, and food security (Ssentamu, 1995; Rahmato, 1991). This is particularly important in communities who practice

subsistence farming, because farming serves as both a means of subsistence and an economic activity. As mentioned in multiple of the research you evaluated, the "seed and tool gap" that the survey brought to light may make these communities' already-existing vulnerabilities and difficulties worse (FAO, 2015; Forcier, 2016). Conclusively, the survey findings validate numerous apprehensions emphasized in extant literature regarding the restricted efficacy of federal and state programs in catering to the fundamental requirements of nearby farmers. In order to better align state government efforts with the needs and reality of local farming communities, future policy-making may benefit from the grounded viewpoint provided by this data, which makes a vital empirical contribution.

**The level of food aid from the state government to local community**

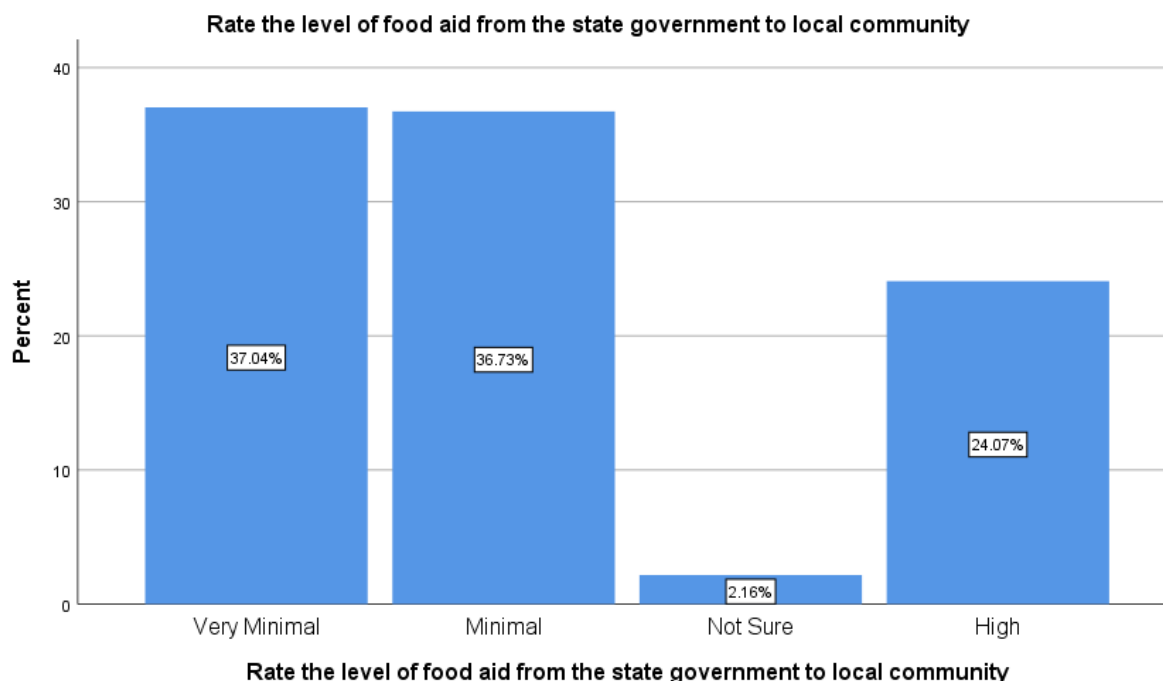


Figure 5: Level of food aid from government  
 Source, Researcher (2023)

When asked to rate the level of food aid from the state government to local community, 37.04% selected very minimal, 36.73% selected minimal, 2.16% selected not sure while 24.07% selected high. 37.04%, of respondents indicated that they perceive the level of food aid provided by the state government to the local community as very minimal. This indicates that a considerable portion of respondents believe the government is providing insufficient support in this area. An almost equal proportion, 36.73%, of respondents chose the minimal category, indicating that they also perceive the level of food aid from the state government to the local community as lacking, albeit to a lesser extent than the "very minimal" group. 24.07% of respondents selected the high category, indicating that they perceive the state government's food aid to the local community as adequate or substantial. While this proportion is larger than the high categories in previous questions, it is still lower than the combined percentage of respondents who perceive very minimal and minimal support (73.77%). A small percentage, 2.16%, of respondents selected the not sure category, which implies that they are uncertain about the level of food aid provided by the state government to the local community. A majority of respondents (73.77%) feel that the level of food aid provided by the state government to the local community is inadequate. However, a notable percentage (24.07%) of respondents perceive the support as high, indicating a more positive assessment of government food aid in comparison to previous questions. There may still be room for improvement in government support for local communities in this area.

The answers to this question paint a more nuanced picture than the preceding data points, which highlighted the shortcomings of state policy in terms of seed and tool provision, training and capacity building, and other areas. The majority of respondents (73.77%) believe that the state government's food aid program is insufficient. This is consistent with other research and body of literature regarding the widespread discontent with government assistance in rural areas (FAO, 2015; Onakuse, 2012). On the other hand, a substantial minority (24.07%) believe that the amount of food aid is high. This difference in viewpoints may indicate that food assistance is a different type of policy tool than resource distribution or capacity building, possibly one that is more immediate and obvious and hence influences perceptions in a different way (Barrett, 2006 & Lentz, 2018).

Numerous things could be implied by the fact that almost 25% of respondents think the food assistance is sufficient. It can imply that the state government has performed somewhat better in terms of emergency relief efforts than in terms of programs aimed at sustainable development, such as the distribution of seeds and tools or training. It might also mean that food assistance is dispersed more widely or equally, reaching a greater number of people (Cohen & Lind, 2005; Howe & Devereux, 2004). On the other hand, it's possible that those who believe that food aid levels are high come from particular geographic or demographic groups that have profited from government initiatives in ways that others have not, creating a degree of disparity in government assistance (De Waal, 1997).

Although food aid can provide temporary respite, it is often not regarded as a long-term solution to the structural problems that plague agricultural communities in the greater context of agricultural growth and food security (Clay, 2018). Therefore, even though some of your respondents believe that the government is doing a better job in this area, there is still a pressing need for better policy interventions in the areas of training, capacity building, and providing seeds and tools for sustainable agricultural development (Barrett, 2006; Lentz, 2018). In conclusion, a quarter of respondents had a somewhat more positive opinion of government food aid, which indicates that although the state is making progress in giving short-term relief, there is still a big gap in long-term, sustainable support for farming communities. This necessitates the establishment of policies with a balanced approach that takes into account the short- and long-term requirements to guarantee food security and agricultural development.

## Discussion

The results show that the federal government has little effect on the subsistence farming in Akobo County, Jonglei State. This aligns with multiple studies. For example, according to the Food and Agriculture Organization (FAO, 2015), only 4.5% of the land was under cultivation when South Sudan gained its independence, showing ongoing challenges in the agricultural sector. Berti et al. (2004) draw attention to the difficult connection between nutrition and farming. They put this down to a number of things, including government actions. This is consistent with the survey's findings, which indicated that participants thought the government might have done more to teach and supply farmers with equipment and seeds. The body of research demonstrates the impact of government policies on agriculture and livestock. The results suggest that government programs are not supporting small-scale farming in the region. On the other hand, attitudes about food assistance are more positive. According to research, farming and living require help (Rahmato, 1991; Ssentamu, 1995). The conventional federalism paradigm, which upholds a balance of power between the federal government and state or local governments, is largely supported by these results. The remark implies that we need more local control over policy and decision-making in order to fulfill community needs. In South Sudan, however, things are not nearly that clear-cut. Tribal disputes, societal tensions, and environmental issues face the country (Forcier, 2016). These outcomes highlight the significance of approach customization. This would give the federal government more sway over small-scale farming.

## Thematic Analysis of KII

### Impact of Federalism on Subsistence Farming:

The results support the literature on this topic by showing that subsistence farming in Akobo County, Jonglei State, is thought to be largely uninfluenced by the federal system of government (FAO, 2015; Berti et al., 2004). This sense of dissatisfaction is further emphasized by key informant interviews, which show that local farmers believe government policies mainly fail to support them. The farming community has unfulfilled requirements notwithstanding the federal system's decentralization of some parts of governance due to ineffective local policymaking.

### KII Insight:

*Key informants shared that some subsistence farms have been earmarked for government development plans, and farmers are losing their lands to investors and governmental offices. This underlines the government's insufficient focus on the immediate needs of local subsistence farmers.*

### Role of Aid and Government Policies:

The interviews also revealed that while governmental policies are not viewed favorably, the role of aid is somewhat positive. This is congruent with findings from Rahmato (1991) and Ssentamu (1995), who emphasize the importance of aid in agricultural activities.

### KII Insight:

*According to key informants, humanitarian assistance programs have been the primary means of support in Akobo County for the last decade, indicating a systemic failure in government service delivery but an effective role for international aid.*

#### Federalism and Local Decision-Making:

Our findings provide a sophisticated interpretation of the federalism theory, which advocates for a fair distribution of power between the federal and local governments. Although South Sudan appears to have this equilibrium in theory, the key informant interviews indicate that it is not translating into positive results for the local population, especially in areas like agriculture.

#### KII Insight:

*Key informants mentioned that while the federal system has brought governance services like the processing of national identity cards closer to the people, it has failed in delivering essential services and effectively managing communal resources, thereby necessitating a reconsideration of federalism's role and effectiveness in this context.*

#### Complexity and Context-Specific Approach:

The complex sociopolitical environment of South Sudan, which is characterized by persistent communal conflicts, tribal conflicts, and environmental issues, is underscored by our findings and the perspectives of key interviewees, which call for a more comprehensive and context-specific approach to federalism (Forcier, 2016).

#### KII Insight:

*Informants pointed out the devastating impact of federal policies on pastoralist lifestyles and inter-state trade, underlining the need for policy reforms that are sensitive to local customs and livelihoods.*

### **Conclusion and Recommendation**

In summary, the results of the goal, which sought to evaluate how the federal system of government affected subsistence farming in the communities of Akobo County, Jonglei State, show that most people believe that government assistance and involvement are insufficient. The majority of survey participants reported that there have been little to no advancements in subsistence farming. The absence of adequate training, capacity building, policy participation, and resource provision—such as seeds and tools—by the state government is another issue on which respondents strongly agree.

Many people have a good opinion of the state government's food assistance program. It seems they rate this support higher than other government areas. However, the general consensus indicates that significant improvements in government initiatives and community support are needed to promote a more prosperous subsistence agricultural industry in Jonglei State's Akobo County. A thorough assessment of current state support, training, and capacity-building initiatives is urgently required due to the perception of insufficient public assistance. It is advisable for policymakers to contemplate introducing more collaborative methods that entail farmers in the creation and execution of pertinent initiatives. In brief, the poll presents an unfavorable image of the state government's endeavors to improve the abilities of subsistence farmers in South Sudan's Jonglei State's Akobo County. These results call for a quick review of the ways in which training and capacity building are being used to actualize federalism. In order to cultivate a more thriving subsistence farming sector in Akobo County, it is recommended that the state government should create better policies and programs for giving resources, food aid, and training to subsistence farmers. It must collaborate with states and local communities to advance sustainable farming.

### **References**

- Akindele, S. T., & Olaopa, O. R. (2003). The theory and practice of federalism as a structural
- Barrett C.B. (2005) Rural Poverty Dynamics: Development Policy Implications. *Agricultural Economics*, 32(1): 45-60.
- Behnke R. (2010) The contribution of Livestock to GDP in the IGAD Member States. Study Findings, Application of the Methodology in Ethiopia and Recommendations for Extension of the Programme. IGAD-LPI Working Paper 02-10, IGAD-LPI, Addis Ababa.
- Behnke, R. (2010). Trout and salmon of North America. Simon and Schuster.
- Bernstein, R. J. (1992). The new constellation: The ethical-political horizons of modernity/postmodernity. MIT press.
- Berti, P. R., Krasevec, J., & FitzGerald, S. (2004). A review of the effectiveness of agriculture interventions in improving nutrition outcomes. *Public health nutrition*, 7(5), 599-609.

Blench, R., & Marriage, Z. (1999). Drought and livestock in semi-arid Africa and southwest Asia.

Davidova, S., Fredriksson, L., Gorton, M., Mishev, P., & Petrovici, D. (2012). Subsistence farming, incomes, and agricultural livelihoods in the new member states of the European Union. *Environment and Planning C: Government and Policy*, 30(2), 209-227.

De Waal, A. (1997). Democratizing the aid encounter in Africa. *International Affairs*, 73(4), 623-639.

Faiz, A., Faiz, A., Wang, W., & Bennett, C. (2012). Sustainable rural roads for livelihoods and livability. *Procedia-Social and Behavioral Sciences*, 53, 1-8.

FAO (2004) Towards Sustainable Agriculture and Rural Development in the Ethiopian Highlands. Proceedings of the Technical Workshop on Improving the Natural Resources Base and Rural Well-being, Bahir Dar, Ethiopia.

Gillespie, S., & Margetts, B. (2013). Strengthening capacities for enhancing the nutrition sensitivity of agricultural policy and practice. *SCN News*, 40, 55-60.

Holmelin, N. B. (2021). National specialization policy versus farmers' priorities: Balancing subsistence farming and cash cropping in Nepal. *Journal of Rural Studies*, 83, 71-80.

Howe, P., & Devereux, S. (2004). Famine intensity and magnitude scales: a proposal for an instrumental definition of famine. *Disasters*, 28(4), 353-372.

Kalu, J.O., & Bing, D. (2016). Implication of Federalism in 'Federal' Related Political Institutions: A Conceptual Analysis. *Perspectives on Federalism*, 8, E-45 - E-68.

Krejcie, R.V., & Morgan, D.W., (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*.

Litvack, J. I., Ahmad, J., & Bird, R. M. (1998). Rethinking decentralization in developing countries. World Bank Publications.

Lupai, K. (2013, December 31). The struggle for sovereignty of South Sudan joint effort. *Sudan Tribune*. <https://sudantribune.com/article45205/>

Majekodunmi, A. (2015). Federalism in Nigeria: The past, current peril and future hopes. *Journal of policy and development Studies*, 289(1850), 1-14.

Mbatha, M. W., Mnguni, H., & Mubecua, M. A. (2021). Subsistence farming as a sustainable livelihood approach for rural communities in South Africa. *African Journal of Development Studies*, 11(3), 55.

mechanism of governance: how adequate for gender struggle and representation in

Morton, J. F. (2007). The impact of climate change on smallholder and subsistence agriculture. *Proceedings of the national academy of sciences*, 104(50), 19680-19685.

Nigeria? *Anthropologist*, 5(3), 169-178.

Nivola, P. S. (2005). *Why federalism matters*. Washington, DC: Brookings Institution.

Olowu, D., & Wunsch, J. S. (2004). *Local governance in Africa: The challenges of democratic decentralization*. Lynne Rienner Publishers.

Olsson, L., & Jerneck, A. (2010). Farmers fighting climate change—from victims to agents in subsistence livelihoods. *Wiley Interdisciplinary Reviews: Climate Change*, 1(3), 363-373.

Onakuse, S. (2012). The future of subsistence agriculture in the rural community of Uzanu, Edo state, Nigeria. *Journal of Agriculture, Food Systems, and Community Development*, 3(1), 61-71.

Onakuse, S. (2012). The future of subsistence agriculture in the rural community of Uzanu, Edo state, Nigeria. *Journal of Agriculture, Food Systems, and Community Development*, 3(1), 61-71.

Pannell, D. J., Llewellyn, R. S., & Corbeels, M. (2014). The farm-level economics of conservation agriculture for resource-poor farmers. *Agriculture, ecosystems & environment*, 187, 52-64.

- Quisumbing, A. R., & Pandolfelli, L. (2010). Promising approaches to address the needs of poor female farmers: Resources, constraints, and interventions. *World development*, 38(4), 581-592.
- Rahmato, D. (1991). *Famine and survival strategies: A case study from Northeast Ethiopia*. Nordic Africa Institute.
- Raissa Sorgho & Carlos A. Montenegro Quiñonez & Valérie R. Louis & Volker Winkler & Peter Dambach & Rainer Sauerborn & Olaf Horstick, 2021. "Addendum: Sorgho, R., et al. Climate Change Policies in 16 West African Countries: A Systematic Review of Adaptation with a Focus on Agriculture, Food Security, and Nutrition. *Int. J. Environ. Res. Pu*," *IJERPH*, MDPI, vol. 18(3), pages 1-1, January.
- Schomerus, M. (2016). Considering the state: perspectives on South Sudan's subdivision and federalism debate (M. Schomerus & L. Aalen, Eds.). Retrieved from odi.org website: <https://odi.org/en/publications/considering-the-state-perspectives-on-south-sudans-subdivision-and-federalism-debate/>
- Siphesihle, Q., & Lelethu, M. (2020). Factors affecting subsistence farming in rural areas of nyandeni local municipality in the Eastern Cape Province. *South African Journal of Agricultural Extension*, 48(2), 92-105.
- Sorgho, R., Mank, I., Kagoné, M., Souares, A., Danquah, I., & Sauerborn, R. (2020). "We Will Always Ask Ourselves the Question of How to Feed the Family": subsistence farmers' perceptions on adaptation to climate change in Burkina Faso. *International journal of environmental research and public health*, 17(19), 7200.
- Starkey, P., & Mutagubya, W. (1992). *Animal traction in Tanzania: experience, trends and priorities*. United Republic of Tanzania, Ministry of Agriculture.
- Thorlakson, T., & Neufeldt, H. (2012). Reducing subsistence farmers' vulnerability to climate change: evaluating the potential contributions of agroforestry in western Kenya. *Agriculture & Food Security*, 1, 1-13.