



# ***THE FUNCTIONALITY OF UGANDA'S SINGLE SPINE AGRICULTURAL EXTENSION SYSTEM***

**Elijah Dickens Mushemeza**

**ACODE Policy Research Paper Series No.110, 2023**

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Published by ACODE

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### **Citation**

Mushemeza E., D. (2023). The Functionality of Uganda's Single Spine Agricultural Extension System, Kampala. ACODE Policy Research Series, No. 110.

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**ISBN 978 9970 56 730 0**

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# Acknowledgments

ACODE brings to you this insightful research paper with support from the Hewlett Foundation. ACODE would like to extend her gratitude to all stakeholders that provided information that made this publication possible. Particularly, we extend our appreciation to officials from the Ministry of Agriculture, Animal Husbandry and Fisheries, National Agricultural Advisory Services, the districts' local governments, Civil Society Organizations and Development Partners who participated in various interviews. The role played by the Management and staff of ACODE in the publication of this research paper cannot be overstated.

It is our sincere hope that this research paper will inform the implementation of the new national agricultural extension strategy aligned to the NDP III, the Parish Model and the national agenda of socio-economic transformation.

# Acronyms

ACODE	Advocates Coalition for Development and Environment
CSOs	Civil Society Organizations
DLG	District Local Governments
FGDs	Focus Group Discussions
KIIs	Key Informant Interview
LED	Local Economic Development
LG	Local Governments
MAAIF	Ministry of Agriculture, Animals, Industry and Fisheries
MDAs	Ministries Departments and Agencies
MDAs	Ministries Departments and Agencies
MoFPED	Ministry of Finance, Planning and Economic Development
MoLG	Ministry of Local Government
NAADs	National Agriculture Advisory Services
NAES	National Agricultural Extension Strategy
NARO	National Agricultural Research Organization
NDP III	National Development Plan III
NGOs	Non-governmental Organizations
OWC	Operation Wealth Creation
VSLA	Village Saving and Loan Association

# Executive Summary

This report presents the findings and discussions on the functionality of the single-spine agricultural extension system in Uganda. The recommendations from the research process will potentially inform the implementation of the new national agricultural extension strategy aligned to the NDP III, the Parish Model and the national agenda of socio-economic transformation. The single spine extension system was conceptualized as a well-coordinated, harmonized, public sector-led pluralistic extension system. The aim was to eliminate the parallel institutional arrangements that emerged during the NAADS program implementation. It aims at enhancing agricultural production and productivity, value addition, food security, household income and export. In addition, it focuses on building the capacity of individual farmers and farmer institutions to have greater access to and control over structures and processes that transform their resources and assets into the outcomes that they desire to achieve their goals.

The study sought to address four objectives: (i) assessing the effectiveness of coordination among key actors (including clarity of mandates) in the delivery of agricultural extension; (ii) assessing the functionality of transparency and accountability mechanisms in the single spine agricultural extension system; (iii) assessing the performance of the system in the attainment of key agricultural extension outcomes; and (iii) assessing the effects of COVID-19 on the delivery of agricultural extension services.

The report gives a background to the reform and an overview of the strategy that has been used to implement it. The report gives the methodology utilised in the research process, the limitations of the study and how methodological challenges were addressed. The report brings out the findings in relation to the objectives set and in particular; on coordination dilemmas, transparency and accountability mechanisms, and performance of the system and the effects of COVID-19 on the delivery of agricultural extension service.

## ***Methodology***

The research design used for this study was cross-sectional. In the study, we largely used qualitative methods of data collection and analysis. These included document analysis, key informant interviews and Focus Group Discussions. The research tools that we used included; a document check-list, an interview guide, and focus group discussion guides. The study was done in four (4) districts of Uganda



(Gulu, Kabarole, Luwero and Soroti) selected based on getting a representation of major agricultural production zones in the country.

## ***Findings***

The major findings of the study were the following:

1. The Single Spine Agriculture Extension System has in the implementation of the strategy registered achievements, albeit; in a limited way. A code of conduct has been put in place to guide extension officers; a guide was developed that enables registration and accreditation of agricultural extension and advisory service providers; agriculture service delivery standards were developed; and procedures for the development of harmonised agriculture extension materials have been developed. Extension workers were recruited and deployed in some of the sub-counties across the country.
2. The implementation of the single spine extension system so far has been derailed by coordination challenges. Notably, there has been a lack of a legal framework that should have transited NAADS-mindset that depended largely on donors to a new home-grown integrated extension system. The entry of the OWC strategy didn't address the question of demand-driven services for farmers' groups and coordination between local leaders, and beneficiaries.
3. The study noted that transparency and accountability revolve around the flow of information. The existing transparency mechanisms such as the display of information at district and sub-county headquarters are not known to the farmers. The flow of information from duty bearers to the farmers ideally ensures transparency and when the farmers demand information, duty bearers are held to account. It was also noted that the single spine reform did not gazette clear spaces for information sharing between farmers and duty bearers – a role which used to be undertaken by the NAADS Coordinators at the sub-counties. NAADS Coordinators used to keep close contact with the farmer groups. The existing transparency mechanisms such as the display of information at district and sub-county headquarters were found not to be known to most farmers.
4. Evidence from Gulu, Luwero, Kabarole and Soroti showed a contradiction between the claims by the District civil servants (Community Development Officers and District Production Officers) and Extension Workers at sub-counties on one hand and the farmers (both male and female) interviewed in the focus

groups discussion. The extension workers knew what to do and claimed to be hands-on, yet the intended beneficiaries observed that there was absenteeism, lack of seriousness, and corruption displayed by the actors in the public sector extension.

5. The experience with OWC revealed that 'mind-set' is one of the greatest hindrances to social economic development for the communities to embrace different deliberate government programmes and initiatives aimed at reducing and banishing poverty and deprivation. Mindset change emerged as critical in the implementation of the Parish Model adopted by the government to transform agricultural rural communities.
6. The COVID-19 pandemic has had severe effects on the entire extension system particularly; on advisory, production, and marketing. The extension workers were found to have 'disappeared' with the lockdown at the climax of COVID-19 infections leaving farmers to be on their own. The market opportunities had also collapsed and the morale to produce had gone down.
7. Overall, the implementation of a single spine system was found to have been undermined by the lack of a legal framework, budget cuts for the Ministry of Agriculture, Animal Industry and Fisheries; coordination deficits; corruption in the access systems of inputs, the COVID-19 pandemic and associated lockdowns; and the little commitment by the extension workers situated at sub-counties.

## ***Recommendations***

1. Ensure Good Governance and Coordination among Ministries, Departments and Agencies. The Ministry of Agriculture, Animal Industry and Fisheries through the Directorate of Agricultural Extension Services should play the coordination role to harness the inputs from other institutions such as NARO. This provision should also be well articulated in the extension service delivery and implementation plan.
2. Prioritise recruitment of more extension workers: Human resource gaps arising out of low staffing levels will stifle service delivery, thus calling for the recruitment of at least enough employees to fill critical technical posts. In the face of severe staffing gaps, MAAIF should leverage existing alternatives for the delivery of extension services, such as ICT and mobile phones, radio talk shows and call centres.

3. The revised strategy therefore should incorporate programmes of sensitization of the communities aimed at mindset change for farmers to embrace new methods of farming particularly the use of fertilizers, planting new varieties of crops and adopting new breeds of animals and fish but also reduce overdependence on government projects by beneficiaries.
4. Government should fast-track the enactment of the National Agriculture Extension Act given its significance in the implementation of the single-spine agricultural system
5. Government should revise the national Agricultural policy and align it with the National Development Plan III.
6. The parish model is a major transformation project of the Government and should be integrated into the agricultural policy, Decentralisation policy, and other policies that relate to the development of rural communities
7. MAAIF should bargain for more funding than ordinarily given but should also explore other funding options as budget constraints are likely to persist. There is a need to build MoLG and local government capacities for resource mobilization and Local Economic Development (LED) to address constraints of underfunding and unfunded priorities. Apart from strong budget advocacy and negotiations with Parliament, Ministries, Programmes Working Groups and Development partners to increase the share of financing; policy actions should include: a) strategies and skills for Local managers to engage the private sector, development partners, CSOs; b), explore, in liaison with Ministry of Finance, financial markets as a source of alternative financing. This will however require robust skills in identifying bankable and sound projects.
8. The Ministry of Agriculture, Animal Industry and Fisheries, together with the Ministry of Education and Sports; and the Ministry of Local Government should develop a mandatory course on Mind-set change and rural development and transformation to be undertaken by local government managers and other senior public officers particularly, Chief Administrative officers, Town Clerks, Production Officers, Extension Officers, Sub-county and Parish chiefs. Sustainable financing for extension service and institutional development for local governments as partners with MAAIF also calls for more dedicated support to the local revenue generation and management question. This is an old undertaking which has

been largely left to the Local Governments to undertake. With the adoption of the parish model, all government ministries and departments should help Local governments to Institutionalize Local Economic Development as a primary driver for individual and household incomes as well as local revenue.

# 1.0 Introduction

Poverty reduction has characterized development goals around the world. This report presents the findings of a study commissioned by the Advocates Coalition for Development and Environment (ACODE) to analyse the functionality of Uganda's Single Spine Agricultural extension system to inform the formulation of the new National Agricultural Extension Strategy (NAES) that will be aligned to the National Development Plan III and other relevant policies. This section outlines the background to the study, the problem, the rationale of the study and the specific objectives.

## 1.1 Background and Rationale of the Study

Uganda's Agricultural Extension System has undergone several reforms since independence which ranged from regulatory, educational, participatory, and demand-driven to pluralism (AfranaaKwapong, N., & Nkonya, E. 2015). Despite the numerous reforms over the years, agricultural extension in the country has persistently been characterized by diversity in the actors providing the services (both advisory and provision of inputs). The numerous actors include government ministries, departments and agencies (MDAs), non-governmental organizations (NGOs), sector businesses and out-grower schemes of large farms. Between 2001 and 2015, the National Agricultural Advisory Services (NAADS) was the main vehicle for the provision of public agriculture extension, advisory services and inputs in Uganda (MAAIF, 2016). Despite the numerous reforms; agricultural production and productivity have declined in their contribution to GDP over the years for example, in FY2016/17 there was a general reduction in production for most crops. There was a significant decline in the production of plantains by 27%. Other crops with reduced production included; millet by 18%, maize by 12%, sorghum by 11% and beans by 25% among others which were all associated with weather changes among other factors. Average agricultural production of cereals, vegetables, pulses, and plantain bananas reduced from FY 2012/13 to FY 2016/17 due to several reasons, which include; prolonged drought, increased landslides, pests and diseases among others (MoFPED, 2018).

Against a background of coordination challenges and poor agricultural outcomes, the Ministry of Agriculture, Animal Industry and Fisheries introduced a reform dubbed the 'single spine agricultural extension system' in 2016. According to the National Agricultural Extension

Policy (2016), the reform was intended to *“transfer the extension function from the National Agricultural Advisory Services (NAADS) to the mainstream Ministry of Agriculture Animal Industry and Fisheries (MAAIF) and the creation of a Directorate of Agricultural Extension Services (DAES); integration of the NAADS program into the local government production departments and eliminating the parallel institutional arrangements as well as separation of agricultural input supply from the extension service delivery system.”*

The roll-out of the ‘single spine’ extension system was envisaged to greatly improve the provision of extension services in Uganda. Five years into its implementation, however, the challenges that plagued the sector remain. Coordination of the diverse actors remains a challenge along with limitations in non-wage recurrent funding which has persistently constrained the provision of extension services to farmers across the country. Furthermore, some of the critical implementation milestones are yet to be attained. For instance, the transition of the extension function from NAADS to the MAAIF is yet to be legalised with an amendment or repealing of the NAADS Act (2001).

However, NAADS as the front runner of the extension programme has faced challenges in transparency and accountability which have constrained the delivery of extension services. For instance, the Auditor General’s report for FY 2018/19 indicates that the NAADS had ‘no mechanism of informing possible beneficiaries of the support available on value addition facilities intervention’. The report also points out that NAADS faced a total of 18 legal claims related to the distribution of agricultural inputs. The report also highlighted procurement inefficiencies with procurement of value addition infrastructure experiencing delays of up to a whole year.

It is against such a background that ACODE through its Centre for Budget and Economic Governance (CBEG) commissioned a study to assess the functionality of the single-spine agricultural extension system in Uganda. The study was a response to the realisation that as the country comes to the end of the implementation time frame of the strategy; many of the challenges that previously plagued extension service delivery persist. These include; i) Lack of coordination and collaboration that leads to duplication of services, ii) Low coverage of extension beneficiaries and inadequate provision of services resulting from largely limited transportation means for agricultural extension workers Poor adoption of agricultural technologies and best practices, iii) Ineffective extension approaches, and iv) Late release of funds that delays implementation (MoFPED, 2019). In addition, the COVID-19

pandemic has affected service provision in all sectors. For example, according to Kahirwa M. B (2020), there are several farmer-level impacts of COVID-19 on agriculture including, constrained group labour due to social distance, High costs of inputs such as seeds, fertilizers and farm tools, high costs of extension services due to increased cost of transport among others. This assessment and the outcome of the research process are expected to inform the implementation of the new national agricultural extension strategy aligned to the NDP III, the Parish Development Model and the national agenda of socio-economic transformation.

## **1.2 Uganda's Agricultural Extension Strategy: An Overview**

The government, through the Ministry of Agriculture, Animal Industry and Fisheries formulated the National Agricultural Extension Strategy to guide, harmonize and implement agricultural extension services to farmers, farmers' groups, and other actors in agriculture value chains throughout the country. The National Agricultural Extension Strategy (NAES) was derived from the National Agricultural Extension Policy 2016 and was developed through a wide consultative process. The NAES was also aligned with the Five Year National Development Plan (NDP II) 2015-2020

This strategy was in response to the government's commitment to realise an agricultural revolution in the country in line with the National Agriculture Policy (2013) and the National Agricultural Extension Policy (2016). It was intended to effectively and efficiently provide agricultural extension services to support the sustained progression of small-holder farmers from subsistence agriculture to market-oriented and commercial farming.

The strategy goal, objectives, and activities reflected consensus generated during highly interactive consultations and dialogues. This consensus was generated from extension service personnel and other stakeholders (including farmers and farmers' groups, local governments, related ministries, departments and agencies, subject matter specialists, private sector, civil society, academia, policymakers and development partners).

A panoramic view of the extension strategy shows that agricultural extension was perceived correctly so as the "Heart and Soul" of the knowledge base of the Ministry of Agriculture, Animal Industry and Fisheries and is one of the most important elements for the agricultural sector transformation. The reformed agricultural extension system

was expected to significantly improve production efficiency, and competitiveness and foster the commercialisation of smallholder farmers still engulfed in a vicious cycle of poverty.

Agricultural extension services,<sup>1</sup> therefore, were expected to be provided through a more pluralistic, inclusive, equitable, decentralized, integrated and harmonious system that links all categories of extension users along the value chain with appropriate services, innovative technologies and the market. The extension system was expected to put the smallholder farmer at the Centre. It advocated for stronger linkages with research, educational and farmer institutions for effective agricultural services delivery to farmers.

The findings of the research bring to light what was expected, what was achieved, and what did not work and why.

### **1.3 Objectives of the Study**

The overall objective was to undertake a study that would assess the functionality of the single-spine agricultural extension system to inform the implementation of the new National Agricultural Extension Strategy in Uganda.

Specifically, the study focused on the following:

1. To assess the effectiveness of coordination among key actors (including clarity of mandates) in the delivery of agricultural extension
2. To assess the functionality of the transparency and accountability mechanisms in the single-spine agricultural extension system
3. To assess the performance of the system in the attainment of key agricultural extension outcomes

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1 Agricultural Extension Services include interventions/activities by government and Non-State Actors that facilitate the access of farmers, their organizations, and other value chain actors to knowledge, information, and technologies; mediate their interaction with other relevant organizations; and assist them to develop their technical and management capacity in agriculture and family life, (<https://www.agriculture.go.ug/>).



## 2.0 METHODOLOGY

### 2.1 Study Design

The study employed a cross-sectional design which is best suited for studies aimed at finding out the prevalence of a phenomenon, situation, problem, attitude or issue (Setia M. S. 2016). The study applied participatory stakeholder interviews and consultative group discussions at national and local levels in addressing the study objectives. The study briefly captured the historical context i.e. where the country has come from in terms of the agricultural extension system, what has happened during the journey and what can be done to attain an agricultural revolution in Uganda.

### 2.2 Study Area

The study was done in four Districts; selected Sub-counties and Municipal divisions as well as relevant Government Ministries, Departments and Agencies in Uganda

### 2.3 Study Scope and Target Population

The scope of the study was restricted to assessing the functionality of Uganda's Single Spine agricultural extension system. The analysis of documents in the study was limited to the five years of implementing the single spine structure.

The study covered four (4) districts of Uganda (Gulu, Kabarole, Luwero and Soroti) selected based on regional representation, but this was done to attain a representation of the major agricultural production zones in the country. These districts were also purposively selected from a pool of 35 districts where ACODE operates programmatically. In addition, two sub-counties; one urban and one rural were purposively selected from each district based on the distance from the district headquarters. The FGDs were conducted with the extension workers, Community Development officers and farmers. The farmers' FGDs in the two sub-counties were split into one for males and another for females and each comprised 8 randomly selected farmers. An FGD was conducted for all extension workers and another for the Community Development officers in the district. The table below shows the selected districts and the main crops grown in these districts.

**Table 1: Selected Districts and Crops Grown**

Geographical Region	Study Districts	Sub- County	Production Zones	Production Crops
Eastern	Soroti	Acetgwen and Gweri	Kyoga Plains	Sweet Potatoes, Pineapples, Vegetables, Maize, Sorghum and Oil Seeds
Central	Luwero	Kikyusa and Butuntumula	Lake Victoria Crescent	Coffee, Vegetables and Oil Palm
Northern	Gulu		Northern and Western Nile systems	Cotton, Millet, Sorghum, Legumes, Sesame
Western	Kabarole	Buhanika and Bukuuku	Savannah grasslands, Citrus	Coffee, Sweet Potatoes, Fruits & Veg, Maize, tea and Oil Seeds

Source: National Adaptation Plan for the Agricultural Sector

## 2.4 Methods of Data Collection

The study used qualitative methods in data collection and document analysis. The study relied on both primary and secondary data. Secondary data was obtained from available literature and databases while primary data was collected through the use of a combination of Key Informant Interviews (KIIs), Focus Group Discussions (FGD), and online meetings.

### a) Document Review

To appreciate the rationale behind the establishment of a single spine Agricultural extension system with the attendant strategy to implement it, an in-depth review of the literature was undertaken. This focused on government documents and reports, media articles and reports. Some of the government documents reviewed include; the Constitution of the Republic of Uganda, 1995; the Local Governments Act 1997, 2006, CAP 243; the National Agriculture Extension Policy 2016; the National Agricultural Extension Strategy 2016/2017 - 2020/2021; the National Development Plan III (2020/21- 2024/25), the NRM manifesto, (2021 – 2026), the MAAIF, Agriculture Strategic Plan 2015/16-2019/20, June 2016 among others. The review of these documents was guided by a checklist with different thematic areas relevant to the study. This document review provided valuable information to understand the current agriculture extension policy, agriculture extension strategy, the

achievements so far, the glaring gaps in implementation and what key stakeholders have documented as possible remedies.

### **b) Key Informant Interviews**

Key informants from government MDAs were interviewed using a key informant guide. These were done through face-to-face interaction, and online engagements including email and telephone. Field and online interviews were recorded and transcribed. The key informant tool was administered to representatives from the development partners, Civil Society and actors from the private and agriculture sectors and farmers (male and females) from the districts about their experience with extension services. These KIIs provided valuable information on how to roll back the setbacks and valuable information for implementing the new agriculture extension strategy. These actors included leaders in local governments, extension workers, and civil society organizations working in the agricultural sector.

At the national level, seven KIIs were conducted and these were drawn from MDAs and non-governmental organisations. The specific MDAs and NGOs included: MAAIF, NAADS, OWC, NARO, NPA, IFAD and USAID these were purposively selected based on their roles in the implementation of the extension programs.

At the district, four KIIs were conducted with the District Production Officer (DPO), District Community Development Officer (DCDO) and two representatives of the Civil Society Organisations (CSO) of different organisations in the districts of study.

### **c) Focus Group Discussions**

A total of six FGDs were conducted. These included extension workers, farmers (both men and women separately from Urban and rural sub-counties), and Community Development Officers. All the FGDs for farmers were conducted in local languages and on-premises near the sub-county. The extension workers and Community Development officers' FGDs had a mixture of both males and females while the farmers' FGDs were desegregated according to gender to get a balanced representation of views and opinions. Each FGD consisted of eight participants and was conducted guided by an FGD guide. In particular, the farmers from the communities in sub-counties were categorical on the shortcomings of extension service delivery and what needs to be done through the new agriculture extension strategy.

## **2.5 Data Management and Analysis**

The qualitative data collected from KIIs, FGDs and consultative meetings

were transcribed, coded in themes aligned to the objectives of the study and analysed using Atlas. ti software. The data were coded and analysed based on different content thematic areas. The findings were organised based on the themes derived from the objectives of the study as follows: Coordination among actors in the delivery of agricultural extension; Transparency and Accountability mechanisms in the Single Spine System; Performance of the Single Spine System in Attainment of key Agricultural Extension Service; Effects of COVID-19 on the Delivery of Agricultural Services and Conclusions and Recommendations. This information was further triangulated with the literature review.

## **2.6 Quality Control Measures**

The study deployed experienced research assistants who have had a long time of exposure to data collection and transcription of interview notes. The researchers were trained in data collection methods for the study, tools to be used, and recording of responses. The data collection methods that the researchers were trained in include: conducting KIIs, FDGs and consultative meetings. Further, supervisors were attached to different research assistants to ensure quality data collection and accurate records of responses. This was further augmented by an expert reference group that provided technical back stopping for the study. On the whole; the expert reference group acted as a sounding-board to keep the study on track.

## **2.7 Ethical Considerations**

The study took into consideration ethical issues. Informed consent to participate in the study was sought from all respondents and they signed consent forms. During data collection, no names of respondents were recorded anywhere on the consent form or KII guide and information collected from one person was not shared with the others. Unique identifiers were allocated to each respondent to track the responses. Only the task team had access to the data.

## **2.8 Limitations of the Study**

There were several challenges faced by the study. These included the COVID-19 pandemic that hit Uganda in the middle of fieldwork for this study. Due to COVID-19; the country went into a lock down and this affected fieldwork. ACODE offices were closed which limited coordination work and the reference team could not convene to assess the study progress. However, the reference group gave comments at a later time. At national and in some districts, the officials were reluctant to meet with our team to be interviewed for fear of spreading the

virus. To mitigate this challenge, the research team ensured that all respondents adhered to strict standard operating procedures during data collection. Secondly, online data capture through the zoom computer application was used to conduct interviews with some of the respondents.

## 3.0 PRESENTATION OF FINDINGS

This section presents the findings from examining Uganda's extension system after the reform dubbed the single spine system. To the extent possible, the findings have been reconciled with the available literature in line with the study set objectives. This section is about the existing coordination mechanisms with key actors, transparency and accountability mechanisms, the performance of the single spine system in the last five years and the effects of COVID-19 on agricultural extension services.

### 3.1 Coordination among Actors in the Delivery of Agricultural Extension

In any system or institution coordination among the actors is fundamental in delivering what was planned and how consolidating gains and achievements. But what is coordination in government systems? Coordination means that the lead institution/ Ministry ensures harmony and coherence in policy and programme implementation; and promotes and facilitates cooperation and collaboration among MDAs in the policy/strategy development and implementation processes. At the national level, there is evidence of coordination between the relevant departments in the Ministry, the National Planning Authority, Development Partners, and other related Ministries. Regular meetings are held to develop policy, legislation, development of extension materials, and accreditation of service providers<sup>2</sup>.

In an attempt to substantiate the existing coordination mechanisms among different actors, the study thought to understand the actors' knowledge and perceptions of the single spine system. Most of the actors knew the system; however, just called it simply a sensitization concept and added that they would not go so far as to call it a system.

*The concept of a single spine extension system was new to me. I do not want to believe there is an extension system called a single spine system I never came across one. But there was a perception that there were two parallel systems when NAADs were introduced, it was meant to replace the old system unfortunately/fortunately that did not happen...*

**KII, NAADS**

For the respondents that were aware of the existence of the single spine system, the study investigated the existence of coordination

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2 Interview with Key Informant, Ministry of Agriculture Animal Industry and Fisheries, April 2021

mechanisms among different actors in the implementation of the single spine system and provision of agricultural services. It was discovered that the MAAIF used to hold quarterly meetings of the Agricultural Sector Working Group and the Joint Agricultural Sector Annual Review meetings that brought together various stakeholders and actors in the agricultural sector to discuss pertinent issues but slowly fizzled.

*There is an agricultural sector working group that used to meet almost every quarter. It was a meeting between the Ministry's top management, including the director of the extension, the Commissioner of Agriculture extension and the directors, project managers of all the early projects, and Development Partners. The meetings had representation from the private sector and CSOs. However, representation from CSOs, the private sector and other MDAs like the Ministry of Trade was not consistent. The meetings have been reduced in number as the whole Landscape has changed from budget support and sector support to project support. ...**KII, Development Partner.***

The finds also show that due to limited coordination mechanisms that have since been worsened by the transition from a sector-wide approach to a program-based approach as highlighted by some of the actors, different actors coordinate directly with each other and with the beneficiaries. For example, NARO undertakes on-farm trials of the technologies which ideally have to be up scaled by the extension services. However, the centralized institutional setup of the research system outside the mainstream Ministry and the decentralised institutional setup of the extension services poses coordination challenges. This study notes institutional underlying challenges affecting coordination.

*We get feedback on technology we developed directly from farmers because we conduct not only on-station trails but also on-farm trials and in a limited way we also have innovation platforms where all these technologies are incubated on farmers' fields. We also work with farmer groups for many commodities to be able to train them and demonstrate this technology so that those farmer groups can now be our link and also spread it to the other farmers first in their proximity and then as far as they can go...**KII, NARO.***

*The Agriculture extension department that is responsible for agricultural coordination in the country may now not know the kinds of technologies in the pipeline that NARO is developing, what technologies are already available, and*

*in what areas are they developing the technology....KII, MAAIF.*

The limited existing coordination mechanisms have further been challenged by several factors that include the limited flow of information and the shift from a sector-wide approach to program-based budgeting at the national level. According to the respondents, at the local government level, coordination has mainly been challenged by limited funding.

*Local governments have limited funds to coordinate work and organise meetings. In scenarios where there is a funder, Local governments offload all the coordination-related work to the person funding the project...KII, Development Partner.*

*There are 18 programs within the government now under the NDP III coordinated by different lead agencies. For example, in the agro-industrialization program, it's not only the Ministry of Agriculture the Ministry of Water and Environment is in charge of irrigation. There are other 20 Ministries and Agencies beyond the MAAIF that are charged with implementing interventions under the Agro-industrialization Program. This program-based approach is still being perfected with challenges in coordination notwithstanding. ...KII, Development Partner.*

Furthermore, it was found that, although the different MDAs doing closely interdependent work were disconnected from each other in form of programing. For example, NAADS which does the procurement and OWC which handles the distribution of inputs were said to be operating independently of each other.

*The issue is that NARO has largely directed research to primary production; we have moved into value chain development; Uganda National Research Institute is doing something else...KII, MAAIF.*

*Under OWC the input system does not work very closely with the extension service. The NAADS Secretariat do the procurement independently; they never share the suppliers whom they have selected. Yet for us, we do our job to prepare farmers and what they need but what they bring sometimes contradicts farmers' demands. There is no legal framework to foster institutional compliance and coordination becomes difficult...KII, MAAIF.*

At the local level, it was found that there are still challenges of coordination particularly appreciating that extension should be



demand-driven in the delivery of inputs, timely release of funds and linking research and extension to the needs of the community.

*Some people think that you can assume inputs for the farmers, and determine what they need, yet these approaches are no longer applicable in the current times...**KII, CSO Actor.***

*At times the inputs do not suit the demand for example farmers in Kikyusa, Luwero District are interested in pineapples and maize but mangoes and oranges were supplied. We need quality agriculture inputs, whether through government suppliers or the private sector as long as they are supplied in time...**KII, Luwero District.***

*You find that our research organization is funded by a foreign body which has objectives on a specific issue to be tested, tried and disseminated. So they come up with those innovation reports to their funders, account to them and then jump on farmers to implement what may not be suitable for them...**FGD, Extension Worker Respondent Gulu District***

Also, most of the government stakeholders felt that the single-spine system brought back the decentralized single-spine agriculture extension system in Uganda, which has not been effective due to human resources and financial constraints.

*In Mbale District Local Government, for example, the releases for agricultural extension grants were late. As a result, the resources were diverted and the political leaders decided to use them on a study tour and to attend an agricultural show in Jinja...**FGD, Male Farmer - Mbale District***

Due to the challenges and unsatisfactory impacts associated with NAADS, in 2014 Cabinet approved MAAIF's position to develop a more integrated, coordinated and harmonized public extension system—the Single Spine agricultural extension service delivery system. However, the feasibility of implementing the Single Spine reform can only be realised if challenges faced by predecessor agricultural extension systems are addressed immediately (Barungi, M., Guloba, M., & Adong, A. 2016). The finds suggest that the coordination challenges persist. On the whole, the implementation of the single spine extension system so far has been derailed by coordination challenges such as the lack of a legal framework that should have transited the NAADS thinking depending largely on donors to the new homegrown integrated extension system. The entry of the OWC strategy didn't also address the question of demand-driven services for the farmers' groups and coordination between local leaders, and the beneficiaries. Coordination

ought to be guided by policy, legislation, guidelines, and regular monitoring and evaluation. The policy instruments and guidelines in place should be publicized widely up to the villages where the farmer may not access online publications on the ministry's website.

### **3.2 Transparency and Accountability Mechanisms in the Single Spine System**

Transparency and accountability are critical for the efficient functioning of a modern economy and for fostering social well-being (Carsten, A, 2005). In Uganda, power is delegated from the central government to the local government and lower local governments. Some assurance must then be provided to the delegators—that is, the central government—that this transfer of power is not only effective but also not abused. Transparency ensures that information is available that can be used to measure performance and to guard against any possible misuse of power (Murali, R, 2015). In that sense, transparency serves to achieve accountability, which means that authorities can be held responsible for their actions. Without transparency and accountability, trust will be lacking between a government and those whom it governs. Therefore, transparency enables accountability.

In assessing Transparency and accountability mechanisms in the single-spine agricultural extension system, the study sought to understand the available mechanisms for stake holders to receive and convey information. In addition, accountability is also comprised of the enforcement of sanctions for abuse of office. Transparency and accountability revolve around the flow of information (Svard, P, 2017). The flow of information from duty bearers to the farmers ensures transparency and when the farmers demand information, duty bearers are held to account. However, it was observed that while community members utilized every available opportunity to seek information, they were not always met with the feedback or responses they desired.

It was also noted that the single spine reform did not gazette clear spaces for information sharing between farmers and duty bearers – a role which used to be undertaken by the NAADS Coordinators at the sub-counties that kept close contact with the farmer groups. It was found that community meetings, barazas and engaging with the leaders through phone calls were the most utilized mechanisms of information sharing. Some of the farmers consulted indicated that they use the LC system to reach out to the leaders and sometimes where necessary, they walk to the administrative centres (Sub-county or district headquarters) to obtain information. However, for accountability

to be effective, feedback must be given. Interviews with farmers from Kaborole and Luwero Districts demonstrate this indicating that;

*"When NGOs like Kabarole Research centre (KRC) organise citizen barazas and invite farmers. That is when we have a chance to ask questions and voice our concerns. For example, last year before the COVID-19 pandemic we had a baraza and I asked about the process of getting a cow. We only hear that other people got cows but when you ask, they tell you to write, you write but you don't get any response, so on that day I got a response".* **FGD, Male farmer -Kabarole District**

*"We normally issue our concerns during community meetings. The biggest challenge is that meetings are rarely held nowadays".* **FGD, Female farmer -Luwero District**

While elected leaders often play a vital role in providing information to their electorate, many of the communities consulted voiced dissatisfaction with their leaders as far as conveying information and responding to concerns was concerned. They indicated that information concerning the distribution of agriculture inputs is always shared with a few people. Others added that they only see the leaders during the campaigns and after that, they never see them again. Another KII said that even when they take the initiative and reach out through channels like petitions or letters; rarely do they ever receive feedback. A few did not even know some of the leaders such as the LC 3 Chairperson or Extension workers and as a result; they did not know where to report their grievances and receive any information. The interviews with farmers in Luwero, and Soroti below further illustrate these issues, thus;

*"We only meet our leaders during campaigns, community meetings and rallies.*

*This is when we can be able to ask our leaders about the delivery of services".* **FGD, Female farmer- Luwero District**

*"As a person in the community, I do not even know the extension worker, LC3 among others. Now tell me in case I am to go to the sub-county whom do I see".* **FGD, Male farmer- Soroti District**

*"Our leaders have not taken interest in attending to our complaints. Sometime back we wrote a petition requesting agricultural inputs to the district but we did not get*

feedback". **FGD, Female farmer- Luwero District**

The farmers were also asked about how often they interact with the extension workers. Some of the farmers indicated that they were not aware of the existence of extension workers in the district. Others said that they were trained once and never saw them again. Their attempts to be visited again had since yielded no results. Those in groups said that they would invite the extension workers and ask them some questions there and then. That was the only time they ever meet the extension workers. In some instances, the farmers have to facilitate the travel of the extension workers as indicated by interviews conducted in Gulu and Kaborole:

*"..... they trained us, they left their contacts with us but when we call them, they don't answer their calls or they say, "I am coming" but two years down the road, they are nowhere to be seen. Because some of us had paid some money for the tapeline and the seeds and others have started asking for their money" ...***FGD, Male farmer- Gulu District**

*"We invite him (Extension worker) in our farmer group and ask him questions, but besides that, no any other means to hold them accountable..."***FGD, Male Farmer Kabarole District**

Generally, the existing transparency mechanisms such display of information at district and sub-county headquarters are not known to the farmers. The limited information flow was limiting accountability as well. Most of the farmers do not know the existing extension workers in their area but also they lack knowledge of where to get the information. There is a need for deliberate efforts on the side of the elected leaders and other duty-bearers to popularise the existing avenues for information acquisition. The districts should also utilise the available avenues such as radio to share information related to existing agricultural technologies and the mechanisms of acquisition.

### **3.3 Performance of the Single Spine Agricultural Extension System**

The Single Spine Agriculture Extension System was found to have made some limited achievements in the implementation of the strategy. Although the strategy had been criticized in the sense that it remained an elitist endeavour that was not known beyond policy documents and among the elites, in this section, we point out the observable performance trends from the data collected and the available literature.

### 3.3.1 Policy and Regulatory Framework

The Ministry of Agriculture Animal Industry and Fisheries put in place a national agriculture extension policy that clearly defines the strategic direction a country should take and policy instruments to enable implementation. For quite some time, the public extension system had been demonised as inefficient, bureaucratic, and corrupt hence, the way to go was to entrust extension to the private sector. To improve the image of the public extension system; a code of conduct has been put in place to guide extension officers existing and those to be recruited to adhere to certain values and ethics.

It was also conceptualised that for an extension system to work, it is important to know who is involved (the actors), who is providing and what type of service. In response to this realisation, a guide was developed that enables registration and accreditation of agricultural extension and advisory service providers. This was important in creating a credible data base for use in extension service delivery.

The process of accreditation however requires a new law since the NAADS Act is inconsistent with the agricultural extension policy that was adopted. The Ministry embarked on the process of repealing the NAADS Act so that a National Agriculture Extension Act could be enacted. The draft bill according to the available evidence is still before the cabinet<sup>3</sup>.

The ministry also developed the agriculture service delivery standards. These standards are expected to guide what an extension agent is expected to do. When other actors outside the public sector or the government departments are recruiting, they must conform to those standards.

Furthermore, the Ministry developed procedures for the development of harmonised agriculture extension materials. If any organisation formulates extension materials, there is a process of peer review by a technical committee to ensure quality, and compliance with the policy before the Ministry logo is put on the final product<sup>4</sup>.

### 3.3.2 Reform in the Ministry of Agriculture, Animal Industry and Fisheries

The new policy and regulatory framework demanded restructuring of the ministry for implementation to be embarked on. As a response, the

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3 Interview with the Key Informant, Ministry of Agriculture, Animal Industry and Fisheries, April 2021

4 Interview with the Key Informant, Ministry of Agriculture, Animal Industry and Fisheries, April 2021

Directorate of Agricultural Extension services were strengthened with two Departments: *"The Department of Agricultural Extension and skills Management"*; and *"The Department of Agricultural Investments and Enterprise Development"*. Several support services have been created such as Water for production, a Division for agricultural statistics (a function which UBOS was not adequately handling); and creating a link between the production department in local governments and the Ministry in structural terms. This restructuring was aimed at addressing underlying agricultural development challenges linked to production, marketing and governance.

### **3.3.3 Agricultural extension Service Delivery in Practice**

The agriculture extension strategy under a single spine system envisaged delivering extension service in two modes. The first mode was through strengthening farmer organisations and cooperatives. In this approach, the extension was delivered in a group approach with the groups assumed to be organised either according to a particular value chain or geographical location. It also assumed that strengthening farmer organisations can arise organically from farmers themselves. The assumption is that they can organise themselves, meet frequently and can be trained together around a demonstration facility or training Centre.

The second mode is through a nuclear farmer. This is a model farmer that practices improved agricultural methods and techniques of production, processing and follows the standards and can access premium markets. This farmer was expected to be the centre of agriculture and other farmers still in the subsistence farming bracket would learn from him/her.

The research findings in Gulu, Luwero, Kabarole and Soroti areas of the study show a contradiction between the claims by the District civil servants (Community Development Officers, District Production Officers) and extension workers at the sub-counties on one hand and the farmers (both male and female) interviewed in the FGDs. The extension workers know what to do and claim to be hands-on yet the beneficiaries observe absenteeism, lack of seriousness, and corruption from the actors in the public sector extension. There is a lack of adequate quantities of quality agricultural inputs from the government and on the market, a lack of adequate farming skills for farmers at all production levels; and no clear pre- and post-harvesting handling, processing and marketing mechanisms.

### 3.3.4 Implementation of Agricultural Extension Strategy in Local Governments

The agriculture extension strategy was developed to support the ascendancy of smallholder farmers from subsistence agriculture to market-oriented and commercial farming as one of its objectives (MAAIF, 2016). Most of these smallholder farmers are found at the district level. According to the strategy, the district is tasked with several mandates, roles and responsibilities that include; planning for the agricultural sector, providing technical backup, advising District Councils on matters related to the agricultural sector, collecting and analysing agriculture-related data, generating and disseminating information, Monitoring and evaluating the performance of the agricultural programs, coordinating all stakeholders in production and delivery of agricultural extension services among others.

Investigating the implementation of the agricultural extension strategy to understand whether the district and lower local governments were delivering on their mandate, the study found out that at the district, farmers were being mobilized into farm groups, registered to receive inputs and linked up with beneficiaries and to markets. This is in line with the roles of the local government. Focus Group discussions revealed that;

*We register the beneficiaries (farmers), later verify and after we deliver the inputs, later we make follow-ups on how the inputs are being used. **FGD, Community Development Officer, Soroti***

*We mobilise farmers to form groups. We also help extension workers when assessing groups that should benefit from the programme. We also participate in identifying vulnerable households that can benefit from the programme. **FGD, Community Development Officer, Gulu***

*Our roles are to give support to the extension workers in the mobilization and registration of farmers. **FGD, Community Development Officer, Kabalore***

Although the data from the district technical staff seem to indicate that they have fulfilled their mandate, the beneficiaries/ farmers reported to have not received any services at all. Some who say they received the services accuse the technical staff of giving them misleading information. Most of them maintained that they had not received any farm inputs from the government in a long time. Those that have received also showed their dissatisfaction originating from the mismatch of what is asked vice versa what is supplied. Some farmers



from Soroti and Kabarole reveal that:

*I'm a widow, been registered several times but I have not benefited from the government – **FGD, Female Farmer Soroti.***

*Our leaders don't give us good advice, including agricultural extension workers, especially on inputs. With Inputs and seedlings, leaders change our priorities. We ask for cows, or Irish potatoes, they end up getting us coffee seedlings when no one asked for them. **FGD, Male Farmer Kabarole***

Some of the farmers think that there is a selective distribution of inputs and most especially the well-off receive and the poor are left out. However, this could be explained by the fact that the inputs supplied by the government are few and as a result, not everyone can benefit. As a result, according to some of the officials in the districts, the district samples a few farmers and they become recipients of the few inputs available. Data from interviews have shown that;

*Inputs are only distributed to people who are well off and the vulnerable are left on their own. **FGD, Female Farmer, Soroti***

*Because of the scarcity of resources, we sample the farmers and inputs are given to the selected few. **FGD, District Community Development Officer, Kabarole.***

MAAIF through the directorate of agriculture extension services has been recruiting, equipping and facilitating extension works across districts in Uganda. MAAIF also requested that a grant towards extension services to facilitate extension workers be created and added to the budget. Parliament approved it up to a tune of 39.6bn based on the number of staff that was variable at the time. The grant was to provide the staff with a motorcycle, extension kits, gumboots, overalls and five hundred thousand as a monthly stipend. Against this background, the study sought to understand whether the existing extension workers were performing their roles.

It was found that some of the extension workers were doing some of their roles that include; helping farmers form groups, training farmers on modern techniques, compiling agriculture statistics and enforcing ministerial guidelines. Focus Group Discussions from Luwero and Kaborole Districts revealed that:

*We register farmer groups and carry out statistical information gathering or recording of the number of livestock within the community...**FGD, Extension Worker, Gulu District***



*One of our roles is to conduct training among farmers, especially on modern farming. This is normally done when there is an outbreak of diseases and pests and also during the introduction of new crop breeds. We also do farm advisory services to new farmers and the entire community whenever there is a need ...***FGD, Extension Worker, Luwero District**

*We do mobilization and sanitization on enforcement of different laws and regulations from the Ministry – ...***FGD, Extension Worker, Kabarole District**

Despite the extension workers reporting to have performed their mandates, according to the farmers, their effect is still yet to be felt. Most of the farmers said that they have never seen them and the few that reported to have met or seen them, just a few were visited and advised but mostly for the others, it was not on official business, they just chanced on them. Farmers in Focus Group Discussions in Luwero, Kabarole and Gulu Districts further illustrate these issues, thus:

*I saw them; they visited us and trained us in modern farming.*  
**FGD, Female Farmer, Soroti District**

*They told us it is the work of extension workers to train farmers not farmers to train fellow farmers but you don't see the extension workers' ...***FGD, Male Farmer, Gulu**

*The extension worker for crop production waits for farmers at the sub-county during the distribution of OWC inputs and advises on the management of inputs given to them.*  
**FGD, Female farmer, Luwero District**

*It's more of a farmer searching for them, if a farmer doesn't look for them they will stay in their offices.*  
**FGD, Male Farmer, Kabarole District**

*He normally visits one lead farmer in our village but we don't relate with him. I met him once at the sub-county when I had gone for immunization, by then I found mothers engaging him on how to spray Irish potatoes and he was telling them the types of pesticides to use.*  
**FGD, Female Farmer, Kabarole**

It's clear from the above responses, that extension services are not adequately felt on the ground/villages. The government of Uganda has adopted a parish model whose vision is for "every household in Uganda to have the means to earn the minimum (middle) income that enables it to afford basic human needs such as food, shelter, clothing,

*health care, and education*” As articulated in NDP III, the Parish model<sup>5</sup> is a vehicle through which household incomes and the quality of life of Ugandans will be improved. The parish area is the optimum size for the government to reach every household and ultimately every individual. This is expected to reduce the gap between government and the people; and is anticipated to increase coordination, improved monitoring and reporting and more effective production.

From the responses of the farmers above, if the parish model is to raise the productivity of households, then the attention of the new agriculture extension strategy must focus to increase genuine inputs, fertilizers, seeds and pesticides, providing and sustaining credit for agricultural inputs; provide extension workers at the parish level and more important supervise the extension workers so that they work.

### **3.4 Other Actors in Extension Service Delivery**

The world over, CSOs are part of non-state actors and are critical as development partners. At the national level in MAAIF (in the previous Sector Investment plan), a consortium of CSOs and development partners was represented on the Sector Working Group (SWG)<sup>6</sup>. They were able to add value to policy formulation and legislation. CSOs participated in studies and regional and national review meetings. They made statements during the annual review meetings on critical issues and participated in the formulation of Sector Development plans. They were strong advocates for budget increases. They did it based on the research studies that they had undertaken. They also presented their findings to the Agriculture Sector Working Group (ASWG)<sup>7</sup>.

At the national level, CSOs and Development partners have been very active in the implementation of the delivery of extension services. Some of the respondents spoken to said that they have been instrumental in designing projects, providing funding in the form of grants and loans

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5 NRM Manifesto, 2021-2026: Securing Your Future, Chapter 3, Rural Development and Transformation

6 There is a consortium of 44 Non state actors themselves NSA Working Group in Agriculture. They are coordinated by Food Rights Alliance. See, a report titled JASAR 2019, Sector performance Agriculture Sector Strategic plan 2015/16- 2019/20 at a glance CSO Perspective.

7 Coalition of Civil Society Organisations under the Non-state Actors (NSA) Working Group in Agriculture produced a report titled JASAR 2019, Sector performance Agriculture Sector Strategic plan 2015/16- 2019/20 at a glance CSO Perspective. Among other things the report provides a snapshot to the sector priorities as laid out in the ASSP with a focus on what needs to be done to set a foundation for agro-industrialisation.

for the implementation of different projects and government programs, supervision, lobbying and policy formulation.

*“As a team, we design projects that are funded by IFAD and also participate in supervision, where we go to the field and see how these projects are performing in this case as far as the extension is concerned. And we provide feedback to government...”* **KII, Development Partner**

*Some support is provided under specific projects for Extension work like I think the Japanese for example provided a lot of support in developing irrigated rice production and I'm sure they are giving support to the Ministry's extension services as far as Rice production is concerned...* **KII, Development Partner**

*USAID in its enabling environment activity or project provided a lot of policy and regulation service support to the extension service. It helped with the national extension policy in strategy, which is a few years old. It was also involved in helping lobbying on behalf of the Ministry of Agriculture for more extension work to be provided under the government's budget...* **Development Partner.**

At the local government level, CSOs have as well played an instrumental role in the implementation of the single-spine agricultural strategy by delivering extension services specifically to the farmers. The study found out that CSOs have been involved in coordination mechanisms by working with OWC to distribute inputs, value addition through provisions of agricultural equipment, research to inform policy and robbing among others. The CSOs in the districts of Luwero, Gulu and Soroti revealed that;

*We make sure that whenever OWC is distributing outputs, we work with the leaders to allocate in puts to our farmers...* **KII, CSO Actor- Luwero District.**

*In Gulu, we carried out a baseline survey to inform decisions. After getting the data from the baseline we used it to inform our decisions on project implementation. We work with farmer groups, not individuals. Groups are easy for both monitoring and sustainability.* **KII, CSO Actor, Gulu District.**

*Extension service is the need we have been addressing in Teso and Karamoja regions.* **KII, CSO Actor, Soroti District.**

*We look at demand and the needs of the community. The public sector comes in to provide inputs, and the private*

*sector buys the produce and transportation but when it comes to extension there are limited players. As World Vision, we realized a big need for extension and a big gap in service delivery. **KII, CSO Actor, Gulu District.***

Other CSOs were involved in environmental conservation by working with farmers to conserve wetlands while others train and empower farmers financially through village savings and loan associations. In some districts, CSOs have gone the extra mile to contract and support extension workers to support extension work as well as popularizing the extension policy as well as raising recommendations for its improvement. To further illustrate these issues, CSO actors further noted that:

*As a Community Organisation, we work with farmers who have formed self-help groups both in urban and rural areas. These are mobilized, trained and supported to go through the registration process at sub-county and district levels to form Village Saving and Loan Association (VSLA). Members of VSLAs are involved in farming and petty trade. **KII, CSO Actor, Luwero District.***

*During extension service delivery, environmental conservation is taken seriously in our organization. In Karungura Sub County where there is a source of river Mpanga, we sensitize the farmers about it. In most cases, people tend to forget that it is vital to conserve the environment in modern farming. **KII, CSO Actor, Kabarole District.***

*Most of our projects are related to agricultural services. We prioritise issues such as periodic capacity building in agronomy, providing motorcycles to our extension staff, fuel them to reach rural farmers. Also for the last two years we have been organizing workshops, one on the current extension policy and its effectiveness and we have been able to identify the gaps for attention. **KII, CSO Actor, Luwero District.***

*In Soroti, we have been focusing on drought and floods resulting from climate change. We are working with the District Local Government and our extension workers to arrive at policies and ordinances such as on forest and tree planting. We also discuss and sensitize the communities to understand the need to carry agriculture outside the wetlands – **CSO Actor, Soroti District.***

Non-state actors are willing and ready to work with the government in providing extension services to the farmers in communities. This

would be made more practical and effective with clear guidelines for coordination and supervision with the local governments and central government.

### 3.5 Agricultural Production and Productivity (5 years)

Although the Single Spine Agricultural Extension System has not transformed the agricultural landscape of Uganda, there are indicators that agricultural production increased in what had been identified as game changer crops and other production actives: coffee, tea, maize, oils seeds, fisheries, beef and dairy<sup>8</sup>. This is an indication that a full-scale implementation of a revised strategy is likely to increase production and productivity more and rescue more farmers from the subsistence economy to commercial farmers – contributing to the over-national agenda of social economic transformation. Several experts on agro-industrialization have however pointed out the need to establish farmer groups and cooperatives, skilling and financing them on affordable credit as critical in this undertaking<sup>9</sup>.

**Table 4: Trend of performance of Selected Commodities: Production of Priority Commodities in five years.**

Commodities	2015	2016	2017	2018	2019
Plantain Bananas and Others (000 tons)	4,623.37	4,031	4,803	6,989	10,000
Maize (000 tons)	2,647.50	2,662	2,767	3,442	5,000
Rice (000 tons)	238.19	237	272	199	255
S/Potatoes (000 tons)	2,045.14	2,003	2,373	1,484	1485
Cassava (000 tons)	2,983.19	3,023	3,285	4,390	6,983
Beans (000 tons)	1,012.46	1,008	1,154	728	627
Oil palm (000 tons)	92.2	2.1	2.2	2.5	2.51
Fish (tons)	396,205	307,149	391,260	449,311	603,220
Milk (bn litres)	1.93	2.1	2.2	2.5	2.51
Coffee (million 60-kg bags)	4.462	5.390	5.634	6.95	7.75
Cotton (185kg bales)	109,941	151,081	202,357	189,443	173,457
Tea (MT)	61,629	62,468	74,201	79,466	70,338

8 UBOS, 2020, Statistical Abstract, [Ubos.org/wp-content/uploads/publications](https://ubos.org/wp-content/uploads/publications)

9 EPRC, 2018, Fostering a Sustainable Agro-Industrialisation Agenda in Uganda, [www.eprcug.org](http://www.eprcug.org)

Commodities	2015	2016	2017	2018	2019
Cocoa (MT)	24,008	25,712	28,945	34,518	35,318

Source: SSempijja, V.B., 'Performance of Agriculture and the Strategic Direction of Public Investments in Agriculture'<sup>10</sup>,

## 3.6 Challenges Affecting the Delivery of Agricultural Extension Services

### 3.6.1 Challenges observed in the implementation of the Single Spine Agricultural Extension System.

The functionality of the single-spine agriculture extension system has been characterized by numerous challenges. These have been compounded by the absence of a legal framework. The reform in the agriculture system needed a legal framework to effect the desirable changes that were mooted. The NAADS act is inconsistent with the envisaged operations under the strategy.

In addition, under the NDP III, out of the 919 approved staffing positions, only 595 had been filled and the rest of the *positions (324) were vacant representing a 35% staffing gap*. Among the vacant were key positions such as directors, commissioners, assistant commissioners and principals in core directorates and noticed management's failure to undertake timely recruitments despite the availability of funds. This further constrains coordination under the program (NPA, 2019).

In regards to agricultural financing, there is limited farmer awareness of available agricultural financing packages. The government has provided interventions focused on increasing access to affordable credit and long-term finance for MSMEs and large enterprises respectively. The government has recapitalized Uganda Development Bank (UDB) with UGX103 billion, the Agricultural Credit Facility (ACF) with UGX 50 billion and the Microfinance Support Centre Ltd (MSCL) with UGX 100bn (Emyooga) and UGX 27.3 billion (Operations - another lending) to provide more funding for private sector MSMEs projects. However, these are not known to the public (NPA, 2019).

Further, the study sought to understand other challenges that the implementers and benefices have found with the strategy over the last five years of implementation. According to the implementers at the national level, it was found that beneficiaries have become reliant on government inputs that they do not move to do anything in situations

<sup>10</sup> A paper presented at the NRM Retreat of MPs Elect at the National Leadership Institute Kyankwanzi, 7th – 29th April 2021

when they delay or do not come through. It was also found that although Uganda has a good extension strategy, extension services were generally poor, the few extension workers overstretched and hence their effect could not be felt, corruption and financing challenges and there was a disconnect between research and delivery of extension services. For instance, feedback from the KIIs and FGDs indicated that the above issues still obtain in many local governments as illustrated in responses below.

*Although addressing the extension service delivery challenge is critical, we also have issues with the governance system and approach. Some farmers have become so dependent on free inputs that they cannot try them on their own. **KII, NAADS***

*The agricultural sector is not well funded and how the budget is utilised is another issue. Corruption is a big challenge and when you mention it people are quick to shut you down, they would rather sweep things under the carpet than deal with them head-on. ...**Development Partner Respondent***

*There is a gap between research and the farmers' yields; this is because of a lack of knowledge on crop management which is extension services. In functioning systems, you have strong research extension farmer linkages. Although NARO is within MAAIF, there is a gap between research, extension and the farmer to get technologies to increase yields –**KII, NARO***

Other challenges raised by the implementers at the local government level still echoed limited financing and corruption among other gaps ranging from poor coordination, hard-to-reach areas, and overdependence on government-supplied inputs.

*Some farmers rely on inputs supplied by the government. They lack the mindset change to adapt and start providing their farm inputs. **FGD, Extension worker, Soroti***

*I think coordination is still not very perfect so sometimes it brings delay, sometimes it affects implementation, and sometimes it brings the issue of poor quality inputs. We need to work on improving coordination...**District Production Officer***

Furthermore, the beneficiaries (farmers) also raised several challenges experienced dealing with acquiring extension services and inputs. It was reported that there are few extension workers not proportionate with the size of the sub-counties. As a result, not all farmers can receive extension services. Others raised issues of delayed inputs,



poor markets for produce and leadership gaps. These issues are further illustrated in the following responses;

*'..... the sub-county is very large and they cannot manage cover all the farmers'. If we continue waiting for extension services from the government, they will not reach us at the village level. But the local governments will continue to say that farmers are getting agricultural inputs and training.*

**FGD, Male farmer Gulu District**

*Farmers take time to grow crops but traders buy our produce at very low prices. Maize for example, during planting season a kilogram of hybrid maize seeds costs 7000/= but farmers sell their maize as low as 300/= the highest price is 700/= per kilo.* **FGD, Male Farmer Soroti District**

*The extension workers are few because they are nowhere to be seen and we even don't know them...* **FGD, Female Farmers Gulu**

The challenges affecting extension services stem from the notational to lower local government level. The study shows that financing of the agricultural sector and limited coordination among the different MDAs are the two main challenges.

### 3.6.2 Suggestions for improving agriculture extension services

After soliciting the challenges affecting agricultural extension services, the study also requested the respondents to suggest the appropriate recommendations for improving the strategy. The recommendations were given by all the respondents from the national level, local government level and lower local government level.

At the national level, respondents recommended that government should stop the provision of inputs. Some also added that targeted approaches should be emphasised as opposed to a one-size-fits-all approach. They also continued to add that government should consecrate the limited manpower to a few groups for results that can be used to lobby for a budget increase.

*Suppose the existing extension workers concentrated on some areas and perform, then there would be a basis to make assumptions and build a strong case for the Ministry of Finance. One would argue convincingly, that look these officers are making a difference in agricultural production, to the livelihood of smallholder farmers by being there and improving their yields. Let us mobilise money and increase their budget –* **Development Partner Respondent**

*You cannot look at one size fits all in everything we do. For*



*me, targeted approaches, targeting services to specific categories means you have specific packages for specific categories because there are farmers who may not necessarily need free inputs but need certain other services*  
– **NAADS Respondent**

*I would want the government to get out of the provision of inputs because of its distorting extension, we have all seen that most of the inputs provided under OWC are very poor resulting in poor and bad results. Government should restrict itself to quality assurance. Assessment should be done in different contexts and if other players can do the job government should fund them. I have no problem if the government funded them as long as it has been assessed and found to be better because the government is very inefficient* – **Development Partner Respondent**

At the local government level, suggestions for increasing the agricultural budget salary and the number of extension workers were raised. The farmers called for agricultural model projects in every sub-county where they can always access extension services if the extension farmers are unable to reach them. They also called for quality control of farm inputs such as fertilizers and pesticides as well as sex-desegregated data to aid in the distribution of inputs.

*Then also, we have to advocate for the budget because, in our national budget, the allocation to agriculture sincere is very minimal compared to probably what I would call essential. It will not be fair if we talk about all these things and we don't talk about the salary of agricultural extension workers. You can imagine one extension worker serving more than 21,000 farmers and serving three sub-counties.*  
**FGD, Extension Worker Gulu District**

*They must set up government model projects in every sub-county as a reference point for their work, this program should be a practical one, but if you ask for any visible government project under their contra list not there, can't they step up the model garden on sub-county land as a practical leaning point.* **FGD, Community Development Officer, Kabarole District**

*One there should be an aspect of strengthening data collection so that before you give the service, know who are the persons who are there. Getting to know the data once you have the data, guides the interventions and you target the right people.* – **FGD, Community Development Officer, Kamuli District.**

Finally, the study also thought to find out what the farmers who are the beneficiaries of the different government agricultural programs wanted to see a change in the delivery of extension services. Among other things, farmers called on the leaders to use platforms like local radios to carry out regular awareness of the existing government programs. They also called for the recruitment of more extension workers that are residents in their communities but also weed out the non-performers. In addition, they also called for an increase in the inputs supplied coupled with early planning and communication to avoid delays in the distribution of inputs as well as check on the quality.

*Government leaders should undertake regular community awareness on what plans exist for farmers through radio programmes, Community public address systems and national/regional-based televisions. **FGD, Female Farmer, Luwero***

*Why can't we have resident extension workers so that we know where to find them? Our area is too big we need more than one extension worker. **FGD, Male Farmer, Kabarole***

*There are inadequate drugs for animals in the District. Some drugs are substandard and it should be the responsibility of the government to quality control within the private sector. **FGD, Female Farmer, Soroti.***

The coordination of government with the CSOs and development partners can help to alleviate some of the problems that plague the agricultural extension system. This is because there is currently duplication of services where CSOs are providing extension services and the government is also doing the same but each independently. The government harmonizing its extension plans with CSOs can help reach more farmers with extension services.

## 4.0 CONCLUSION AND RECOMMENDATIONS

### 4.1 Conclusion

This study sought to assess the functionality of the single spine Agricultural extension system to inform the implementation of the new National Agricultural Extension Strategy in Uganda. Specifically, the study assessed coordination efforts among key actors, existing transparency and accountability mechanisms and the overall performance of the single spine system in the attainment of key agricultural extension outcomes.

The study investigated the existence of coordination mechanisms among different actors in the provision of agricultural services and the implementation of the single spine extension system. It was discovered that the MAAIF used to hold quarterly meetings of the Agricultural Sector Working Group and the Joint Agricultural Sector Annual Review meetings that brought together various stakeholders and actors in the agricultural sector to discuss pertinent issues but slowly fizzled. The finds show that this was further worsened by the transition from a sector-wide approach to a program-based approach.

Generally, the findings show that coordination challenges persist both at the national and sub-national levels. Evidence shows that the implementation of the single spine extension system so far has been derailed by coordination challenges such as the lack of a legal framework that should have transited the NAADS thinking depending largely on donors to the new homegrown integrated extension system. The entry of the OWC strategy also didn't address the question of demand-driven services for the farmers' groups and coordination between local leaders, and the beneficiaries.

In a bid to assess transparency and accountability mechanisms in the single-spine agricultural extension system, the study sought to understand the available mechanisms for stakeholders to receive and convey information. This was based on the assumption that the flow of information from duty bearers to the farmers ensures transparency and when the farmers demand information, duty bearers are held to account. However, it was found that while community members utilized every available opportunity to seek information, they did not receive feedback most of the time.

Although the strategy had been criticized in the sense that it remained an elitist endeavour that was not known beyond policy documents and among the elites, the study found some observable achievements. For example, the study found that in the district, farmers were being mobilized into farm groups, registered to receive inputs and linked to markets. This notwithstanding, we also observed a contradiction between the claims of the local government civil servants, extension workers and farmers. The study found out that the extension workers knew what to do and claimed to be hands-on yet the beneficiaries observe absenteeism, lack of seriousness, and corruption in the delivery of public sector extension services. They also cited the presence of poor quality agricultural inputs from the government and on the market, lack of adequate farming skills for farmers at all production levels; and no clear pre- and post-harvesting handling, processing and marketing mechanisms

Last but not least, to raise the productivity of households, the new strategy should focus on access to genuine inputs, fertilizers, seeds and pesticides; sustain credit for agricultural inputs; provide extension workers at the parish level, supervise the extension workers so that they work and increase access to irrigation.

## **4.2 Recommendations**

Needless to emphasize, Agricultural extension is the “Heart and Soul” of the knowledge base of the Ministry of Agriculture, Animal Industry and Fisheries and is one of the most important elements for agricultural sector transformation. The National Agricultural Extension Strategy was aligned with the five-year development plan (NDPII) 2015-2020. Although it has expired in terms of time frame, we strongly recommend revision and not total overhaul because of the following reasons:

The objectives and the corresponding strategies were well defined; the institutional arrangements for implementation being put in place are viable with a modification to include the Parish Model. The principle of a pluralistic and inclusive extension where all other actors/stakeholders are involved in promoting extension services e.g. NGOs, private sector providers, and other CSOs is still relevant. The role of Development partners conceptualised as providing policy and advocacy support, technical assistance for agriculture and mobilisation of resources for agricultural extension is still vital. Similarly, the understanding that adequate funding is the responsibility of the Government of Uganda and it should continue to be through normal government funding of the Ministry of Agriculture, Animal Industry and Fisheries is a reality.

The following recommendations are drawn from the findings of the study and are aimed to input the new Agriculture Extension Strategy and improve the functioning of the Single Spine Agriculture extension system in Uganda and accelerate the national agenda of social-economic transformation.

- a) Ensure Good Governance and Coordination among Ministries, Departments and Agencies. The Ministry of Agriculture, Animal Industry and Fisheries through the Directorate of Agricultural Extension Services should play the coordination role to harness the inputs from other institutions such as NARO. This provision should also be well articulated in the extension service delivery and implementation plan.
- b) Prioritise recruitment of more extension workers: Human resource gaps arising out of low staffing levels will stifle service delivery, thus calling for the recruitment of at least enough employees to fill critical technical posts. In the face of severe staffing gaps, MAAIF should leverage existing alternatives for the delivery of extension services, such as ICT and mobile phones, radio talk shows and call centres.
- c) The revised strategy therefore should incorporate programmes of sensitization of the communities aimed at mindset change for farmers to embrace new methods of farming particularly the use of fertilizers, planting new varieties of crops and adopting new breeds of animals and fish but also reduce overdependence on government projects by beneficiaries.
- d) Government should fast-track the enactment of the National Agriculture Extension Act given its significance in the implementation of the single-spine agricultural system
- e) Government should revise the national Agricultural policy and align it with the National Development Plan III.
- f) The parish model is a major transformation project of the Government and should be integrated into the agricultural policy, Decentralisation policy, and other policies that relate to the development of rural communities

### **Capacities for Extension Service and rural development**

- g) MAAIF should bargain for more funding than ordinarily given but should also explore other funding options as budget constraints are likely to persist. There is a need to build MoLG and local government capacities for resource mobilization and

Local Economic Development (LED) to address constraints of underfunding and unfunded priorities. Apart from strong budget advocacy and negotiations with Parliament, Ministries, Programmes Working Groups and Development partners to increase the share of financing; policy actions should include: a) strategies and skills for Local managers to engage the private sector, development partners, CSOs; b), explore, in liaison with Ministry of Finance, financial markets as a source of alternative financing. This will however require robust skills in identifying bankable and sound projects.

- h) The Ministry of Agriculture, Animal Industry and Fisheries, together with the Ministry of education and Sports; and the Ministry of Local Government should develop a mandatory course on mindset change and rural development and transformation to be undertaken by local government managers and other senior public officers particularly, Chief Administrative officers, Town Clerks, Production Officers, Extension Officers, Sub-county and Parish chiefs.
- i) Sustainable financing for extension service and institutional development for local governments as partners with MAAIF also calls for more dedicated support to the local revenue generation and management question. This is an old undertaking which has been largely left to the Local Governments to undertake. With the adoption of the parish model, all government ministries and departments should help Local governments to Institutionalize Local Economic Development as a primary driver for individual and household incomes as well as local revenue<sup>11</sup>.

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11 LED is conceptualised as a process or development model where Local Governments, the private sector, and the community, are jointly and collectively engaged in identification, mobilization and management of resources at the local level. LED is therefore intended to create conducive environments for investment, increased household incomes, and higher revenues for Local Governments. This, it is hoped, will eventually turn into improved livelihood for the people.

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## ABOUT ACODE

The Advocates Coalition for Development and Environment (ACODE) is an independent public policy research and advocacy think tank based in Uganda. ACODE's work focuses on four programme areas: Economic Governance; Environment and Natural Resources Governance; Democracy, Peace and Security; Science, Technology and Innovation. For the last eight consecutive years, ACODE has been ranked as the best think tank in Uganda and one of the top 100 think tanks in Sub-Saharan Africa and globally in the Global Think Tanks Index Report published by the University of Pennsylvania Think Tanks and Civil Societies Program (TTCSP).



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