Strengthening Capacities for Climate Resilient Agricultural Extension Service Delivery in Uganda

Policy Brief

EXECUTIVE SUMMARY

Building resilient Agri-food systems calls for a range of capacities and concerted efforts from multi-actors including government officials across different ministries and agencies, researchers, academicians, scholars, development partners, civil society organizations and private sector actors. In a bid to assess the various capacities for delivering climate resilient extension services, UFAAS and its partners engaged in a series of Climate Smart Agriculture (CSA) multi-stakeholders events including: a study on capacities for climate resilient extension service delivery at national and sub-national levels, a National Agricultural Extension Symposium on building resilient Agri-food systems; and National and regional CSA stakeholders' dialogues. The findings showed gaps in mainstreaming climate change into agricultural interventions, coordinating efforts among actors and implementing initiatives for wider scale impact. The CSA framework offers an opportunity for re-aligning climate change mainstreaming in the country with a clear focus on building resilience, while emphasizing the need for putting in place appropriate coordination arrangements as well as promoting approaches that guarantee wide-scale significant community level impact.





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INTRODUCTION

The goal of any climate change initiative should be to strengthen the resilience of a given system. A resilient and sustainable agri-food system is one considered to have the capacity to withstand and/or adapt to predictable and unpredictable disturbances over time while continuing to meet its present goals (functions, services or desirable outcomes) without compromising its future capacity. Food systems have multiple components and outcomes, ranging across multiple scales and levels; and are closely linked to other sectors. Thus, using a systems approach ensures that efforts are not focused on only a part of the system (most often agricultural production), while neglecting effects on other parts so as to account for the whole system and its internal interactions between components.

Climate Smart Agriculture (CSA) is a systems approach introduced by its proponents e.g. FAO 2013 for enhancing climate resilience, in addition to sustainable increase in productivity and contribution to reduction of Greenhouse Gases. It is a holistic, integrated, multi-stakeholder approach whose emergence serves to revitalize efforts in overcoming adoption barriers, while adjusting to the new realities of climate change. CSA comprises of practices, policies and institutions that are not necessarily new but are applied in new contexts and ways to enable individuals and communities address the challenges of climate change more effectively (FAO, 2013). A country's Agricultural Extension and Advisory Services (AEAS) system plays a central role in enhancing climate resilience of the Agri-food systems by ensuring prompt and appropriate responses are widely implemented. This policy brief assesses the current capacities for climate resilient extension delivery services at: a) enabling environment; and organizational and individual levels.

Data for assessing the capacities for climate resilient extension services were obtained by the Uganda Forum for Agricultural Advisory Services (UFAAS) in collaboration with partners through 1) A study on capacities for delivering effective climate resilient extension services; 2) The National Agricultural Extension Symposium, 2020; and 3) National and regional CSA dialogues (see box 1 for details). The findings are discussed below and actionable recommendations for policy makers and other CSA stakeholders/actors are highlighted.

KEY FINDINGS

a. Enabling environment

Findings from the study revealed various strengths and weaknesses in relation to the capacities for climate resilient extension service delivery regarding the enabling environment. To begin with, a wide range of complementary policies and legal frameworks that support the mainstreaming of climate change in agricultural interventions existed (figure 1). The frameworks covered a wide-range of CSA components which can be said to adequately support wide-scale CSA implementation across Ministries, Departments and Agencies (MDAs) and the different implementation levels. This also implies that a level of institutional resources such as dedicated funds and expertise would be available to guide the implementation of climate change related activities in the country.

Figure 1: Thematic areas covered by the range of policy frameworks

Key policies and legal frameworks

- The Constitution of Uganda
- Vision 2040
- National Climate Change Policy (2015)
- National Agriculture Policy (2013)
- National Adaptation Plan for the Agricultural sector (2018)
- National Agricultural Extension Policy (2016)
- National Irrigation Policy (2017)
- National Water Policy
- Uganda Meteorology Policy/ Act (2012)
- National Forestry Policy (2001)
- National Environment Act
- The Land Act 1998

Thematic areas covered

- Public awareness for sustainable natural resource management
- Promotion of appropriate adaptation and mitigation strategies
- Mainstreaming climate change in government plans and budgets
- Harmonization of implementation approaches
- Application of a multi-stakeholder approach
- Dissemination of relevant information, practices and technologies
- Strengthening national meteorological system
- Enactment and enforcement of appropriate provisions
- Developing capacities of relevant actors
- Building climate resilience
- Well-coordinated pluralistic agricultural extension delivery
- Increased utilization of water for production
- Integrated development and management of water resources

Gaps in mainstreaming climate change initiatives

Mainstreaming of climate change within agricultural programs was apparently dominated by the top-down policy implementation approach as compared to the bottom-up (localized/community level) approach. The latter emphasizes grassroots level participation in prioritization of interventions that take into account specific needs and interests at the grassroots, thereby enhancing local ownership of interventions. As a result, translation of policy commitments into wider-scale desirable outcomes at the grassroots level remains low due to implementation of small-scale, often fragmented/isolated initiatives, gaps in technical and functional CSA skills, low funding for adequate farm level demonstration kits, and low availability of comprehensive community level CSA services.

Figure 2: Top-down versus bottom-up mainstreaming approaches

Although the goal of the climate change mainstreaming guidelines (MAAIF, 2018) was to ensure that interventions developed and implemented within the agricultural sector address climate change issues through activities of mitigation and adaptation, they do not expressly integrate CSA as a central organizing concept in the mainstreaming process. This omission presents a major challenge for actors to organize themselves, mobilize resources and coordinate the various components of CSA needed to build climate resilient agri-food systems and later on comprehensively appraise their progress and contributions.

Box 1: INITIATIVES UNDERTAKEN BY UFAAS WITH PARTNERS

01

Study on capacities for climate resilient extension services

The study was undertaken by Uganda Forum for Agricultural Advisory Services (UFAAS) in 2019 with support from the African Forum for Agricultural Advisory Services (AFAAS), Food and Agriculture Organization (FAO) and World Meteorological Organization (WMO). Data were collected through Key Informant Interviews (KIIs) with officials from public institutions at national and Local Government levels. A survey of 40 public and private extension workers, and FGDs with members from 4 farmer organizations were also undertaken in Sembabule and Isingiro districts. The findings were validated in a national validation workshop.

Annual agricultural extension symposium, 2020

Hosted by UFAAS in collaboration with MAAIF from 20-30th July, the 3rd National Agricultural Extension E-symposium provided space for diverse AEAS actors/stakeholders to deliberate on how AEAS could effectively contribute to building resilient Agri-food systems amidst the natural calamities such as climate change. A total of 962 national and international participants attended the symposium.

02

03

National and regional CSA dialogues

The national CSA dialogue hosted by UFAAS in collaboration with MAAIF on 3rd December, 2020 was attended by 54 participants from the diversity of AEAS stakeholders/ actors at national level. Regional dialogues were conducted between 8th- 11th December, 2020 in the Central, Western, Eastern and Northern regions with a total of 85 participants in all from a diversity of AEAS actors/stakeholders at regional and local government level. Supported under CAADP-XP4 project through AFAAS, the dialogues aimed to obtain feedback on national and regional capacities for CSA so as to inform both policy and practice with regard to building resilient agri-food systems in the in pursuit of national development goals.

Absence of functional coordination mechanisms

Whereas stakeholders act on a number of related CSA components, they often do so within the confines of their institutional mandates at national and lower levels as coordination mechanisms beyond institutional boundaries are often weak or missing. For instance, the Agriculture Climate Change Unit (ACCU) specified in the National Climate Change Policy (2015) and expected to comprise of a broad range of stakeholders was not yet in place by the time the study was carried out. Similarly, the coordination structures at the sub-national level, namely, the environment committees and district authorities mentioned in the NCCP, were also barely functional. Consequently, translation of policy commitments into wider-scale desirable outcomes at the grassroots level remains low. This low commitment to the policy objectives of mainstreaming climate change at the local level manifests through: weak enforcement of environmental ordinances, implementation of small-scale, often fragmented/isolated initiatives, gaps in technical and functional CSA skills, low funding for adequate farm level demonstration kits, and low availability of comprehensive community level CSA services.

In order to remedy the weak collaboration arrangements among stakeholders/actors stakeholders in the national dialogue were supportive of a collaborative framework that can 1) promote multi-stakeholder and cross sectorial engagement; 2) harmonize CSA messages at all levels and facilitate building capacities for effective communication; and 3) aligning stakeholders/actors' outputs and deliverables (key Performance Indicators (KIPs), with CSA as well as agri-food level indicators.

Key considerations in setting up a fully functional National CSA coordination structure included – clearly specifying the roles of each agency/actor represented; ensuring availability of funds for carrying out specified functions; need to proactively engage private sector through business models so as to leverage investment for sustainable scaling of CSA practices and technologies; and ability to advocate for institutional changes to promote wide-scale uptake of CSA practices and technologies e.g. waiving of tax on CSA implements such as solar pumps. Stakeholders strongly vouched for a more community-level focused approach to planning and implementing CSA initiatives. When appropriately combined with the top-down policy approach, community-level focused interventions promote better integration of site-specific needs of farmers at the grassroots level, resulting into more effective, efficient, sustainable and widespread outcomes.

Stakeholders in the regional CSA dialogues generally agreed to the need to establish a structure for coordinating CSA activities at a regional level, with proposed representation from a wide range of stakeholders and actors. These included farmers/organizations, LG production and environment departments, LG non-technical staff (political, administrative and security); CSOs, private companies, schools and tertiary institutions, ZARDIs, and religious and cultural leaders. The proposed goal of the regional CSA coordination committee was to promote and advocate for effective CSA implementation to enhance regional climate resilience.

Table 1: Proposed roles of the regional CSA coordination committee

Proposed roles of the regional CSA coordination committee	
• Mobilize funds to implement regional CSA initiatives • Lobby and advocate for appropriate bye-laws and ordinances and their enforcement in the region • Harmonization and dissemination of CSA information and sensitization of stakeholders/ actors of CSA at regional level • Mobilizing wide-scale participation of farmers in CSA initiatives • Organize capacity building and other regional events to engage stakeholders on various CSA issues	• Coordination of various stakeholders/ actors at regional level • Conduct situational analysis to determine regional CSA priorities • Developing regional level partnerships for to promote CSA priorities • Develop regional level CSA indicators and support data collection and analysis, reporting and documentation of progress

Stakeholders further proposed a number of guidelines for the regional CSA coordination committee including 1) it should utilize the existing structures within districts and sub-counties 2) it should be result-oriented and membership should change after an agreed period of time, say two years 3) it should have a designated budget that ensures sustainable execution of its tasks, and 4) membership should ensure representation of the marginalized sects in society such as youth and women.

CSA related ordinances and bye-laws

Stakeholders highlighted a number of existing ordinances and bye-laws during the regional dialogues (table 1). Stakeholders noted that in some instances environment committees at sub county level; watershed management committees; and district environment protection desks in districts like Mitooma and Isingiro were in existence to ensure that stakeholders adhere to agreed protocols. A number of actors, especially CSOs were reportedly sensitizing communities on sustainable natural resource management. Nonetheless, connivance of perpetrators with authorities, unclear or lax penalties, ignorance, and understaffing of enforcement personnel were cited as major causes of weak enforcement and low adherence to ordinances and bye-laws among community members. With the exception of the Kampala City Council (KCCA) urban farming Ordinances of 2006, there was no substantive national legal framework to guide the activity despite the prevailing high rate of urbanization in the country. Stakeholders suggested the need for new ordinances/bye-laws, for instance, to further boost tree planting and water harvesting in urban and rural areas.

Table 2: Sample of existing ordinances and bye-laws related to CSA implementation`

Central	Northern	Eastern	Western
• Requirement to intercrop shade trees in vanilla and not to use certain agro-chemicals- Buikwe • District Disaster Reduction plans - Buikwe • Ban on deforestation - Buikwe • Bulungi Bwansi - Kayunga • Water buffer zone - Kayunga	• Prohibition distribution of counterfeit agrochemicals • Ban on growing rice in wetlands • Controlled bush fires • Restriction on cutting of the Shea trees (Otuke) • Restriction on stray movement of livestock	• Restrictions on charcoal burning • Restriction on wetland encroachment by demarcations • Tree planting by primary school pupils • Community tree planting day - 1st of July • Tree movement permits • Tree planting ordinance – at least 50 trees per acre. • Prohibition of sand mining - Serere	• Restrictions on bush burning on bare hills and encroachment on wetlands

b. Organizational and individual capacities for CSA

Findings from the National Agricultural Extension Symposium 2020 confirmed that a number of participating organizations were engaged in promoting and implementing various CSA practices. These for instance, included afforestation to improve on forest cover and carbon sequestration; appropriate agroforestry trees into the different farming systems; and low cost water for production and conservation technologies. Extension service providers were also well-versed with a number of extension methods and techniques applicable to CSA which could be further strengthened in order to improve effectiveness of climate service delivery to a range of value chain actors. These include demonstration sites, farmer visits and field trips, field days, lead farmer approach, and farmer group approaches for collective action and access to services. It was generally noted that there was wide appreciation and increasing use of ICT4Agric by agricultural value chain actors and beneficiaries (including farmers and AEAS providers). These could be further leveraged to improve the efficiency and effectiveness of conventional extension methods in delivering CSA services. However, coordination among extension service providers and other actors from both public and private sectors remained unsatisfactory to participants.

Participants also noted that low uptake of innovations/technologies remains a formidable obstacle to building resilient agri-food systems. The landscape approach was, thus, highly recommended by actors as an effective means of scaling CSA innovations. The landscape approach involves the management of production systems and natural resources covering an area large enough to produce vital ecosystem services and small enough so the action can be carried out by the people using the land and producing those services (FAO, 2013). Notably, the approach was still new to stakeholders/actors, warranting further support to promote its use, as well make CSA technologies more accessible and affordable to farmers who often perceive them to be expensive. A summary of institutional and individual capacity gaps and existing opportunities for deepening CSA implementation is provided in table 3.

Gaps and opportunities

Table 3: Gaps and opportunities for building institutional and individual capacities

Gaps	Opportunities
• Lack of harmonized understanding of CSA as an approach to combatting climate change among stakeholders and actors • Lack of standardized, customized and easily accessible training programs to ensure harmonized delivery and minimum quality for diverse CSA stakeholders and actors • Insufficient resources to facilitate extension workers to deliver effective CSA services • Limited skills in facilitating multi-stakeholder engagement to promote coordinated implementation of CSA activities • Inadequate knowledge and practical skills in problem diagnosis, solution appraisal and execution of CSA initiatives among service providers • Inadequate community level demonstration packages to promote uptake • Low adoption of CSA practices and technologies due to – limited access to reliable markets as drivers of uptake; perceived high labor and investment costs • Lack of M&E system with designated officers and clear KPIs for tracking progress of CSA projects and activities	• Availability of resources (funds, expertise, CSA programs/curricula and materials) in training institutions and other organizations, for capacity building of stakeholders in CSA • Various organizations already promoting CSA e.g. Catholic Relief Services (CRS) in Buikwe • Availability of a wealth of both scientific and indigenous knowledge to learn from • Availability of local structures and institutions to leverage in implementing initiatives e.g. former NAADS farmers' structures, LC system, cultural and religious institutions • Availability of willing funders (targeting by donors) and implementers including both public and private stakeholders and actors with ongoing CSA projects • Availability of supportive policies/ordinances and bye-laws. For instance, in the Northern region it is against cultural norms to cut Shea trees given their perceived environmental and food security benefits • Existing range of CSA innovations that are not yet widely used e.g. tree species for charcoal, waste energy, solar power, biogas, carbon trading, water harvesting etc.

CONCLUSION

The ultimate goal of climate change initiatives is to enhance resilience of Agri-food systems so as to ensure food security and sustainable achievement of other national development goals. However, at the heart of building resilience is a holistic, integrated, multi-stakeholder systems approach, without which, potential synergies across actors and scales remain untapped. Brown et al. (2012), rightly note that the quality of the engagement process involving different actors such as decision makers, business leaders, technical specialists, civil society representatives determines their ability to learn together and develop a unified understanding of the challenges at hand. Thus, the assessment generally revealed some inconsistencies in the capacities for delivering climate resilient extension services in the country. The CSA framework offers an opportunity for realigning climate change mainstreaming in the country with a clear focus on building resilience, while emphasizing the need for putting in place appropriate coordination arrangements and promoting approaches that guarantee wide-scale significant community level impact.

RECOMMENDATIONS

Capacity area	Capacity gaps	Recommendation
National & sub-national policy environment	Climate change mainstreaming delinked from CSA conceptual framework	Adoption of CSA framework for joint planning and implementing interventions for building resilient agri-food systems in pursuit of sustainable agro-industrialization
	Focus on top-down climate change mainstreaming approach resulting in limited investment in community level CSA interventions	MAAIF and CSA stakeholders to prioritize and support the bottom-up approach – community level CSA interventions to tailor investments to site-specific needs of farmers for wider-scale impact
	Lack of national legal framework to guide urban farming; need to review exiting bye-laws and ordinances to enhance CSA implementations	• MAAIF to develop a national urban farming policy/law • Local Governments to review existing bye-laws and ordinances and develop new ones where necessary in order to enhance implementation of CSA e.g. Boosting tree planting and water harvesting in urban and rural areas.
Appropriate CSA national and sub-national coordination mechanisms	Lack of effective coordination mechanisms to promote synergy among stakeholders/actors and across sectors, at all levels	• MAAIF & UFAAS to set up a National CSA Steering Committee to follow up on the designated climate change taskforce/unit of MAAIF and facilitate its transitioning to full functionality in line with the CSA approach • National CSA coordination committee to facilitate establishment of lower level (regional and district) CSA coordination mechanisms to ensure seamless implementation at the grassroots • National CSA coordination committee to lobby relevant authorities e.g. Parliament, for designation a budget to support the activities of the eventual CSA coordination committees at all levels and agree on other modalities for their smooth functioning • National CSA coordination committee to develop a Public-Private partnership strategy with sound business models to promote scaling of CSA practices/ technologies sustainably.

Capacity area	Capacity gaps	Recommendation
Institutional and individual CSA capacities	• Lack of harmonized understanding of CSA among stakeholders and actors; standardized, customized and easily accessible training programs; • Limited technical and functional skills among CSA actors	• National CSA coordination committee together with key stakeholders and actors develop a comprehensive CSA capacity building and communication strategy with harmonized CSA training packages and messages for different stakeholders • National CSA coordination committee together with key stakeholders and actors organize and implement tailored nationwide capacity building and sensitization campaigns for different stakeholders at all levels. • Sensitization campaigns should target a range of local institutions such as schools, cultural and religious entities in spearheading CSA campaigns at community level using localized messages.
	Insufficient resources to facilitate extension workers to deliver effective CSA services e.g. availing adequate demonstration kits	National CSA coordination committee to empower local level AEAS actors and farmer organizations to lobby and attract as well as effectively utilize resources from various sources such as government and donor CSA grants.
	Low adherence to ordinances/ bye-laws and low adoption of CSA practices and technologies due to – limited access to reliable markets as drivers of uptake; perceived high labor and investment costs	• Local Government and stakeholders to empower communities in collective action/solidarity e.g. "Bulungi bwansi" aimed at stewarding the country's natural resources sustainably • National CSA coordination committee to lobby relevant authorities to waive tax on critical CSA technologies such as solar pumps and related products • MAAIF and partners to leverage investment to promote access to affordable and environment-friendly technologies e.g. biogas and electricity and other CSA technologies at community level • MAAIF and partners to promote alternative and greener livelihood strategies in rural and urban areas e.g. upland rice to reduce defaulting.