

Integrating agriculture in National Adaptation Plans Programme (NAP-Ag)

Safeguarding livelihoods and promoting resilience through National Adaptation Plans

Case study

Uganda

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Highlights

- As a Least Developed Country (LDC) that is highly dependent on natural resources, Uganda faces climate risks such as changing weather patterns, decreased water availability and increasing frequency of extreme weather events.
- Uganda's climate change response is led by the Climate Change Department (CCD) of the Ministry of Water and Environment (MWE), Uganda's focal point for the United Nations Framework Convention for Climate Change (UNFCCC). The key strategy for addressing climate change is the National Climate Change Policy (2015).
- The agricultural sector in Uganda contributes 21.9 percent of Uganda's GDP and 68 percent of total employment (UBOS, 2014). Agriculture is recognised as a vital sector in creating climate resilience, given that it is one of the most climate-vulnerable sectors, with impacts on food and nutrition security, employment and livelihoods.
- Coordination of climate change work in the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) is spearheaded by its Climate Change Task Force, which worked with the MWE to develop the National Adaptation Plan for the Agriculture Sectors (NAP for Agriculture). The Plan was launched in 2018 and includes prioritised and costed adaptation for 21 priority adaptation options in eight key areas.
- Formulation of the NAP for Agriculture was supported by the UNDP-FAO NAP-Ag Programme. The process involved capturing lessons learnt from Uganda's National Adaptation Programme of Action (NAPA), a stocktaking of climate impacts and vulnerability, training on appraising adaptation options and the subsequent inclusion of prioritised actions, and extensive stakeholder consultations.

- Strong efforts were directed at formulating a gender-responsive NAP for Agriculture. Gendersensitive adaptation actions were identified through stakeholder consultations, and gender-responsive approaches formed one of the eight main areasthese impacts, are better reflected in future sector plans and activities.
- Adaptation actions identified in the NAP for Agriculture continue to be tested and piloted, leveraging the numerous agriculture and development programmes currently being implemented. These include the demonstration of drip irrigation, use of improved livestock pastures in the semi-arid cattle corridor, and gendersensitive recommendations, also in the context of livestock farming.
- The NAP for Agriculture will inform the overall NAP process in Uganda. Lessons learnt and good practices are being communicated through regular task force meetings and fact sheets to educate parliamentarians and planners about the NAP process. They have also informed the Third National Development Plan (NDPIII) for 2020/2021–2024/2025 and the Agriculture Sector Strategic Plan (ASSP) for 2020-2024.
- Lessons learnt from the NAP for Agriculture development process make a compelling case for strong stakeholder involvement in NAP processes, the mainstreaming of gender-responsive actions, and deployment of institutional arrangements that have been proven effective.

This case study is part of a series that describes the steps taken to formulate and implement National Adaptation Plans (NAPs), with an emphasis on adaptation in agriculture (including forestry, livestock and fisheries). The National Adaptation Plan process was established in 2010 as part of the Cancún Adaptation Framework and was adopted in a Decision at COP17 in Durban (see Box 1). This series will provide national policymakers with valuable information from colleagues and counterparts in Asia, Africa and Latin America, who are on the same NAP journey to address the multiple challenges posed by climate change to agriculture sectors and livelihoods.

Each case study describes the contributions and lessons learnt from the UNDP-FAO NAP-Ag Programme toward the achievement of national and international development and climate goals (for example, the Paris Agreement and Sustainable Development Goals). The NAP-Ag Programme is a five-year initiative implemented in 11 countries and funded by Germany's Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) through the International Climate Initiative (IKI).

Preparation of this case study is based on a review of country reports and interviews with UNDP and FAO Uganda officers, and representatives from the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF); Ministry of Water and Environment (MWE) universities; and partner organisations.

Box 1

National Adaptation Plans (NAPs)

National Adaptation Plans were established in 2010 as part of the Cancún Adaptation Framework to enhance urgent action on adaptation and were adopted by Parties to the United Nations Framework Convention on Climate Change (UNFCCC) (Decision 1/CP.16.). NAPs enable countries to identify, prioritize and implement the most needed medium— and long—term adaptation actions. They aim to:

- reduce vulnerability to climate change by building adaptive capacity and resilience; and
- ensure that CCA is integrated into development planning in all sectors and at all levels of planning within the country.





2.



Adaptation and the Paris Agreement

"Uganda has the overarching objective of ensuring that all stakeholders address climate change impacts and their causes through appropriate measures, while promoting sustainable development and green growth."

(Government of Uganda, 2015: 5)

Uganda is a climate-vulnerable country. The Intergovernmental Panel on Climate Change report identified Uganda among the LDCs with a high climate change vulnerability index (IPCC, 2014). Uganda became a signatory to the United Nations Framework Convention on Climate Change (UNFCCC) in 1994 and the Kyoto Protocol in 2002. Its National Adaptation Programme of Action (NAPA) was launched in 2007, spearheading actions to address immediate and short-term adaptation needs. Uganda's National Climate Change Policy (NCCP) was launched in 2015, aiming to harmonise and coordinate approaches toward a climate-resilient and low-carbon development path for sustainable development in Uganda.

The Paris Agreement also entered into force in 2015, recognising the urgent need for adaptation as a key component in global responses to climate change and for safeguarding country progress toward the achievement of Sustainable Development Goals (see Box 2).

Box 2

Climate change and the Sustainable Development Goals (SDG)

Climate change has implications for each of the 17 Sustainable Development Goals (SDGs). National Adaptation Plans (NAPs) play an important role as a means of SDG implementation. In the agricultural, livestock and forestry sectors, adaptation can contribute to sustainable food production systems as well as the development of resilient agricultural practices, and ultimately of SDG Goal 2 to achieve Zero Hunger. The SDG Goal 13 on climate change, explicitly highlights adaptation as a key mechanism to combat climate change and its impacts, with targets to:

- Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters.
- Integrate climate change measures into national policies, strategies and planning.
- Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

Uganda submitted its intended nationally determined contributions (INDCs), which became its NDCs, in October 2015. The NDCs' priorities were "reducing vulnerability and addressing adaptation in agriculture and livestock, forestry, infrastructure, water, energy, health and disaster risk management" (Government of Uganda, 2015: 3). In terms of mitigation, Uganda has committed to actions in the energy, transport, forestry and wetland sectors, with the target of a 22 percent reduction of national greenhouse gas emissions by 2030, compared to the business-as-usual scenario. Uganda's NDCs list nine priority areas for the agriculture sectors (excluding forestry), including expansion of extension services, climate-smart agriculture, crop diversification, expansion of value-addition to agriculture, small-scale water infrastructure, and rural electrification.

Drawing on lessons learnt from its NAPA, Uganda began developing its overall NAP in 2015, and launched a NAP roadmap in 2017. Activities that have commenced include a stakeholder analysis of the climate change actor landscape, an economic assessment of climate impacts on key sectors (agriculture, water, energy and infrastructure), and vulnerability assessments for some sub-sectors and key crops in agriculture.

Meanwhile, sectors most affected by climate change are engaging in adaptation planning processes in parallel. Uganda's National Adaptation Plan for the Agriculture Sectors was

completed by the MAAIF in close collaboration with other agencies and launched in November 2018. The Ministry of Water and Environment is prioritising the development of a framework to guide sectors to produce sector-specific NAPs, informed by the NAP for Agriculture. Lessons from development of the NAP for Agriculture were used to support the National Planning Authority (NPA) in developing a thematic paper for integrating climate change concerns in the Third National Development Plan (NDPIII) for 2020/2021–2024/2025. The thematic paper proposes adaptation and mitigation actions for climate proofing different sectors such as water, energy, health, urban planning, oil and gas, mineral development, transport, wildlife and tourism.

Uganda has been working toward implementation of its climate goals nationally and through global support and is part of the NDC Partnership, a network of countries and institutions working to mobilise support to achieve countries' climate goals. Implementation of the NAP for Agriculture is also included in Uganda's NDC Partnership work plan. Five main areas of support have been identified: strengthened policy and institutional frameworks for climate change governance; effective Measurement, Reporting and Verification (MRV) systems for greenhouse gas (GHG) monitoring; gender-responsive adaptation; capacity-strengthening for stakeholders for integrating NDC commitments and SDGs; and resource mobilisation for NDC implementation (NDC Partnership, 2018).

Climate change and agriculture

Uganda's climate is largely tropical savannah with pockets of monsoon, equatorial and semi-arid climate regions. The annual rainfall is 1 000 to 1 500 mm with two dry seasons. It is estimated that 66 percent of Uganda's population is engaged in agriculture, with 80 percent of the rural population, mainly smallholders, reliant on subsistence agriculture. Around 96 percent of farming parcels depend on rain as their main source of water, and only 1 percent depends on irrigation (Uganda Bureau of Statistics, 2007). The contribution of agriculture to GDP in 2017 was estimated at 25 percent (World Bank, 2019).

Given the dependence on rain-fed agriculture, climate change is expected to pose major risks to water availability and production. Since 1960, mean annual temperatures have risen by 1.3 degrees Celsius. Annual and seasonal rainfall has decreased significantly across the country. More than half of the country is vulnerable to droughts, and a third to floods. Such adverse weather is one of the main drivers of reduced growth from 7 percent in the 1990s and early 2000s to 4.5 percent in the present. Communities in mountainous regions, informal urban settlements and along the dryland cattle corridor are particularly at risk (UNDP and FAO, 2017).

Smallholder farmers, pastoralists and fishers experience these impacts most acutely. With Uganda's population growing at a rate of 3.02 percent per year, one of the highest rates in the world, climate change also increases the risk of food insecurity and poverty. A vulnerability study conducted in 2013 estimates USD 47 million worth of losses from the 2008 drought. The loss from climate-related impacts from 2000 to 2013 alone amounted to USD 1 billion (USAID, 2013). As part of the NAP process, the MAAIF's Climate Change Task Force analysed trends on climate variability to support MAAIF departments and agencies and district local governments on climate change and agriculture-related issues.

Frameworks and institutions

National and sectoral policy frameworks have long recognized the need for sustainable management of natural resources (see Table 1), clearly linking climate change to the country's development challenges. Uganda's National Climate Change Policy (NCCP) is derived from the Constitution (1995, amended in 2005 and 2015). The NCCP reflects Uganda's Vision 2040 (Government of Uganda, 2012), which aims to improve the quality of life for Ugandans through transforming society from "a peasant to a modern and prosperous nation" (Government of Uganda, 2015: 2).

Table 1

Key environmental and agricultural policies and climate-related national policy documents

Year	Title		
1995	National Environment Management Policy		
1995	Wetlands Policy		
1995	National Water Policy		
1997	Plan for Modernisation of Agriculture (2000)		
1998	National Environment Act		
1998	Land Act		
2001	National Agricultural Advisory Services (NAADs)		
2001	National Forest Policy		
2002	First National Communication		
2003	National Fisheries Policy		
2003	Food and Nutrition Policy		
2007	National Adaptation Programme of Action (NAPA)		
2010	Disaster Preparedness and Management Policy		
2010	Agricultural Development Strategy and Investment Plan (DSIP) 2010/11–2014/15		
2010	Water for Production Strategy and Investment Plan 2010–2035		
2010	Uganda Strategic Investment Framework for Sustainable Land Management 2010–2020		
2012	Uganda Meteorology Act		
2013	National Agricultural Policy		
2013	National Coffee Policy		
2013	National Land Policy		
2014	Second National Communication		
2015	National Climate Change Policy, with Costed Implementation Strategy		
2015	Second National Development Plan (NDPII) 2015/16–2019/2020		
2015	Agriculture Sector Strategic Plan (ASSP)		
2017	NAP Roadmap		
2017	National Irrigation Policy		
2018	Draft Rangeland Policy		
2018	NAP for the Agriculture Sector and Guidelines for Mainstreaming Climate Change in Agriculture Sector Policies and Plans		
2019	National Environment Act		
2020	Third National Development Plan (NDPIII) for 2020/2021–2024/2025		

The NCCP and its Costed Implementation Strategy estimated that Uganda will require USD 2.9 billion over the next 15 years to address the impacts of climate change in addition to existing interventions.

To support the implementation of national climate change priorities, Uganda has chosen to pursue sectoral and overall NAP processes in parallel (see Figure 1). In 2015, MAAIF, together with the Climate Change Department of the Ministry of Water and Environment, formed a task force to coordinate the development and implementation of policies, strategies and laws for addressing effects of climate change in the agricultural sector. One of its priorities was to develop a NAP for the agriculture sectors and guidelines for climate proofing and mainstreaming into agricultural sector programmes and activities.

Climate change recommendations in the NCCP have been integrated in the Second National Development Plan (NDPII) for 2015/16–2019/2020. The integration of climate change concerns into the Third National Development Plan (NDPIII) for 2020/2021–2024/2025began in 2019, informed by lessons from the process undertaken by the agricultural sectors and related stakeholders to formulate Uganda's first NAP.

Figure 1

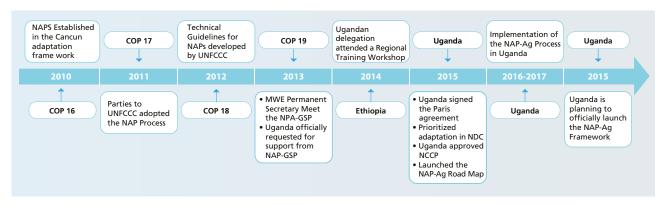


Figure 1: Chronology of the National Adaptation Plan process in Uganda

To develop the NAP for Agriculture, MAAIF's Climate Change Task Force built on relationships forged with the national coordinating body for climate change in the country (the Climate Change Department of the Ministry of Water and Environment); the Ministry of Finance, Planning and Economic Development; as well as agricultural agencies such as the National Agricultural Research Organisation (NARO); Uganda Coffee Development Authority (UCDA); Dairy Development Authority; and other water and environment sector representatives. Outreach to key stakeholders, including policymakers and local government planners, by means of information sessions and factsheets, was key to ensuring that lessons learnt from the NAPA development process informed the development of the NAP for Agriculture.



Uganda's National Adaptation Plan for the Agriculture Sectors

Uganda's NAP for Agriculture began as a draft action framework for the agriculture sector. It was formulated in coherence with the NAP Technical Guidelines by the UNFCCC Least Developed Countries Expert Group (LEG). Steps taken to develop the NAP included:

- capturing and integrating lessons learnt from Uganda's NAPA (2007) into the prioritised actions and practices;
- assessing available information on climate impacts and vulnerability to identify entry points for climate change adaptation in the agriculture sector;
- providing training on tools for gender-responsive appraising of adaptation options, which involved sessions for parliamentarians, youth groups, planners at the central and district levels, and non-state actors to enhance capacity for gender analysis and mainstreaming of gender in plans and adaptation; and
- consulting with stakeholders to collect information on present and expected economic and social impacts of climate change.

A participatory and consultative process was an early priority. Consultations were held among government officials at national and local levels from different sectors, such as agriculture, environment, water, gender and youth, the private sector, development partners and civil society representatives. The following types of consultations were organised:

- *local government meetings*: identified agriculture sector priorities for consideration in NAPs, including experiences on NAPA implementation and good practices;
- visits and review of NAPA pilot project sites: understanding lessons learnt from the implementation of adaptation technologies and NAPA projects initiated in 2007 was critical for informing the NAP-Ag process; and
- consultative 3-day workshops involving local communities: district leadership and stakeholders from six districts of the central cattle corridor (Sembabule, Mubende, Kiboga, Luwero, Nakasongola and Nakaseke) discussed impacts and potential priority interventions, approaches and partners.

The resulting NAP for Agriculture draft was reviewed and validated in further regional workshops. As gender was one of the eight priority themes, a gender capacity development strategy was formulated following a needs assessment, tailored trainings and field visits, so that decision makers could better understand the challenges faced by male and female farmers (FAO and UNDP, 2018). In order to lay the foundation for implementation of the NAP-Ag, capacity-building initiatives were undertaken to ensure that potential users of the framework can utilise available tools to choose the appropriate adaptation options.

In November 2018, the Plan was officially launched by the UN Resident Coordinator and the Minister of Agriculture, Animal Industry and Fisheries, in a public function involving non-state actors and representatives of different ministries, departments and agencies. The Minister noted that the Plan would "support actions to reduce vulnerability to the impacts of climate change, and [facilitate] the integration of climate change adaptation into relevant, new and existing programmes." Lessons learnt from the process of developing the Plan and proposed approaches for implementation were shared in a dialogue session during the launch function.

The Plan contains 21 costed priority adaptation options in the areas of crop farming; livestock farming; fisheries management; climate information; early warning and disaster preparedness; forestry, land and natural resources management; research and knowledge management; and gender-responsive climate change adaptation. The Plan presents adaptation actions relevant for the different agro-ecological zones that will guide farmers, technical officers and decision makers on investments that will build resilient communities, systems and institutions as Uganda proceeds to upgrade its agricultural sector. The cost of implementing the Plan over a 5-year period is estimated at about USD 522 million.

A set of guidelines for mainstreaming climate change into agriculture sector plans was also formulated and launched alongside the Plan. The baselines for different indicators were then set, providing a complete monitoring framework for the NAP for Agriculture.

The next steps involve implementation of the Plan by different actors at national, subnational and community levels. The Plan recommends the codification of functions and the formalisation of MAAIF's Climate Change Task Force into the more functional Agriculture Climate Change Coordination Unit (ACCU). The ACCU will take the lead in implementing both the Plan and the Climate-Smart Agriculture Programme. The MAAIF's planning cycle will integrate some of the key actions. Guidelines on gender-sensitive mainstreaming climate change adaptation in local level plans, budgets and policies are being planned, subject to approval by Parliament. This includes quides for different subsectors such as livestock and fisheries.

Resource mobilisation efforts are currently under way to leverage domestic and international funding sources to implement the Plan and disseminate its findings. Ongoing projects in the agriculture sectors have already begun to implement recommendations, such as those relating to the promotion of gender-sensitive actions in livestock practices.

The Plan will be updated every five years, in coherence with the update cycle of the National Development Plan. Implementing the agricultural sector NAP in Uganda, including the mobilisation of resources, is an important next step to ensure continuity of agriculture's adaptation planning efforts in tandem with related national processes to help Uganda accelerate climate action. The NAP for Agriculture is the first sectoral NAP in Uganda, and lessons learnt in its development and implementation are being fed into the overall NAP process through engagement workshops, mainstreaming into projects, and development of information material.

Supporting the NAP and agriculture process in Uganda

Support for development of the Uganda NAP for Agriculture is just one part of an overall objective of a global programme ensuring that climate change adaptation concerns are integrated both into agriculture sector plans and the overall NAP process in the country. Table 3 shows the development of Uganda's agricultural sector NAP process. The four programme outcomes guiding this support covers capacity-building, building an evidence base for adaptation actions, and ensuring coherence of sectoral and national policies with global commitments like NDCs, SDGs and other long-term strategies (see Box 3).

Box 3

NAP-Ag programme outcomes

- **1. Strengthen technical capacity** Building up partner countries use of appropriate tools and analyses to assist key ministries with investment planning and budgeting
- **2. Develop integrated roadmaps for NAPs** Strenghtening the technical capacity of individuals and institutions to develop a roadmap of economically viable, gender-responsive, medium- to long-term adaptation options for the agriculture sectors
- **3. Improve evidence-based results for NAPs** Developing and introducing impact assessment frameworks for the agriculture sectors, which generate evidence-based results and can be used in policy dialogues (e.g. on adaptation panning and monitoring, tracking and reporting)
- **4. Promote agricultural NAPs through advocacy and knowledge sharing** Sharing and providing information to other countries and sectorson how to integrate adaptation needs into national planning and budgeting processes.

Besides its support for formulating the NAP for Agriculture, the NAP-Ag Programme contributed to Uganda's NAP process in the following ways:

Coherence of both immediate and long-term adaptation actions. To ensure better coherence with earlier adaptation planning efforts, the Programme supported the government of Uganda to conduct a review of pilot projects in its NAPA. Uganda's NAPA (2007) had identified urgent and short-term adaptation needs, which led to the implementation of pilot projects aimed at building communities' resilience to adverse impacts of climate change. These were implemented with non-governmental organisations (NGOs) in a variety of ecosystem types (arid, semi-arid, lowland and highlands) located in four areas: Nakasongola, Apac, Pallisa and Bundibugyo. A study commissioned by the NAP-Ag documented lessons from these pilots with the objective of informing the development of the NAP for Agriculture's medium- and long-term adaptation actions.

Gender mainstreaming and development of gender-responsive NAP for Agriculture. Work on gender was multi-pronged. First, technical staff at local and central government levels and non-state actors were trained on gender-responsive adaptation sensitive planning and budgeting. This extended to the formulation of a gender-responsive NAP, where gender-sensitive approaches were one of the eight themes and accompanied by a set of relevant adaptation options that were identified through stakeholder consultations. The steps to a gender-responsive NAP for Agriculture were then documented (FAO and UNDP, 2018). These lessons from gender-responsive development of the NAP-Ag are being used for the mainstreaming of gender and equity in agriculture sector annual plans and budgets and District Development Plans beyond the project life and will provide lessons for other sectors.

Improvement of evidence-based results for planning and Monitoring and Evaluation (M&E). Trainings were conducted to build technical capacity on cost-benefit analyses (CBA) and impact evaluation (IE). The training targeted senior officers and field technical staff from the Ministry of Agriculture, Animal Industry and Fisheries; the Ministry of Water and Environment; and the Ministry of Finance, Planning and Economic Development. The training built capacity on the use of tools to evaluate and select effective climate change adaptation options as inputs into the NAP for Agriculture. A Performance Monitoring and Evaluation Framework (PMEF) for the NAP for Agriculture was developed in line with existing monitoring arrangements for the National Climate Change Policy. Baseline indicators were also developed for monitoring implementation of the Plan.

Strengthening of Uganda's disaster loss and damage information system. With 70 percent of all disasters related to extreme hydro-meteorological events, a package of support was targeted at increasing capacities within relevant ministries to assess and analyse disaster-related data. The work focused on the use of the disaster loss and damage information system Desinventar. Training was conducted at the regional level in selected districts to enhance capacities of local planners to collect, report and analyse historical data from available district-level disaster records.

Study on adaptation technologies in the fisheries sub-sector. Given that fisheries and aquaculture activities often receive less attention among the sub-sectors in terms of climate change action, a study on adaptation technologies in the fisheries sector was conducted. A climate change vulnerability assessment for fisheries was carried out, followed by the development of a Technology Adoption Plan (TAP).

Implementation of gender-responsive adaptation options in communities. Two communities in the semi-arid cattle corridor of Uganda were chosen to demonstrate adaptation options for drip irrigation (Nakaseke District) and use of improved livestock pastures (Mubende District). For example, in Nakaseke District, two male and two female farmers tested drip irrigation facilities using water from the Nabisojo wetland, with the aim of a gender-sensitive demonstration of key adaptation options.

Development of appropriate knowledge products and sharing. Factsheets and videos were developed throughout the Programme to build awareness of the ongoing NAP process among stakeholders. These were instrumental for not only informing national stakeholders about the NAP for Agriculture development process, but also for its validation. For wider dissemination to interested planners from other countries wishing to embark on the NAP process, a case study chronicling Uganda's experiences developing a gender-responsive NAP for Agriculture was developed (FAO and UNDP, 2018).

Activities related to integration of agriculture sector priorities into NAP formulation and implementation, in relation to the UNFCCC NAP Technical Guidelines

Step	A. Laying the groundwork and addressing gaps	Status	Activity
1	Launch the formulation and implementation of the NAP	Completed	NAP-Ag process roadmap launched in 2015; roles and responsibilities of different stakeholders defined
2	Formulate mandate for NAP for the Agriculture Sectors	Completed	Mandate, roles and responsibilities of different stakeholders defined through the launch of the Climate Change Task Force
3	Define institutional arrangements and coordination mechanism	Completed	Defined in the NAP for Agriculture and in the guidelines for mainstreaming climate change adaptation and mitigation in agricultural sector policies and plans
4	Consult and engage stakeholders	Completed	Multiple stakeholders consulted for NAP for Agriculture; youth and women engaged through community-based adaptation
5	Synthesise available information, take stock of relevant activities and assess gaps and needs	Completed	Captured lessons from NAPA pilot projects
Step	B. Preparatory elements	Status	Activity
6	Analyze past climate and CC scenarios	Completed	Included past climate change scenarios in the NAP-Ag framework
7	Comprehensively assess climate vulnerability using science and knowledge	Completed	Conducted vulnerability assessment in fisheries sector during NAP-Ag formulation, including case studies in drip irrigation, improved pastures and dairy value chain
8	Undertake activities to integrate adaptation into national and subnational development planning	Completed	Carried out training in impact evaluation, value chain analysis, gender-responsive adaptation planning, cost-benefit analysis, and disaster risk reduction. Training on improved pasture management as an identified adaptation option
9	Identify adaptation options to address key vulnerabilities	Completed	Identified 21 priority climate change adaptation options and actions and included them in the NAP-Ag framework
10	Appraise, prioritise and rank adaptation options	Completed	Conducted CBA on selected options with support of Makerere University; adaptation options being tested on specific sites before scaling local implementation

Step	C. Implementation strategy	Status	Activity
11	Formulate national and subnational plans and budgets to integrate adaptation into the agricultural sectors	Ongoing	NAP-Ag framework launched in November 2018; implementation, monitoring and evaluation ongoing
12	Prioritise CC adaptation in national and subnational planning	Ongoing	NAP-Ag will guide adaptation in subnational plans, and the process of prioritisation will guide national and other sectoral processes; financing call issued to facilitate central and local governments and non-state actors to mainstream climate change actions
13	Synthesise available information, taking stock of existing agricultural sector initiatives, policies, development plans, and programs	Completed	Undertaken as part of the NAP for Agriculture formulation process
14	Implement and manage actions in NAPs to reduce vulnerability through policies, projects and other activities	Ongoing	Farmer training in Mubende supported with improved pasture seeds in 2018; bilateral projects tasked to implement actions identified in the NAP for Agriculture
Step	D. Reporting, monitoring and review	Status	Activity
15	Design and apply M&E framework or system	Completed	Developed PMEF and published <i>Guidelines</i> for Mainstreaming Climate Change Adaptation and Mitigation in NAP
16	Communicate progress on the formulation and implementation of the NAP	Ongoing	Published policy briefs; resources being mobilised
17	Monitor and periodically review the NAP process	Ongoing	Developing baseline indicators for monitoring
18	Update the NAP repeatedly	Ongoing	Held workshop in June 2019 to share lessons learnt with national and other sectoral stakeholders

Lessons learnt

The best practices for Uganda's NAP for Agriculture process are being documented and shared to inform sectoral and overall NAP processes. These include the following lessons learnt:

- The most climate-vulnerable sectors, such as agriculture, can become champions of the NAP process, catalysing government action on the formulation of the overall NAP. The MAAIF set up the Climate Change Task Force in 2015 to respond to the needs of the agriculture sectors and their vulnerabilities to climate change, before one had been set up for the overall NAP process. Besides helping to lay the institutional and practical foundations for the NAP for Agriculture, it also raised awareness of and spurred forward the overall NAP process. National agencies leading the NAP process can also move the process forward by providing guidance on the NAP process.
- It is crucial to document lessons learnt from earlier initiatives and relevant tools deployed in studies and projects, to ensure that these lessons are integrated in planning. This also reduces fatigue amongst beneficiaries. For example, the implementation of NAPA pilots was analysed and integrated into the development of the NAP for Agriculture. Synthesising such information before conducting consultations raised awareness and efficiently guided assessments of adaptation options.
- Strong stakeholder engagement creates buy-in and is key to an inclusive NAP.

 Bringing together all levels of practitioners from government ministries, academia, the private sector and civil society and engaging them in the design of the NAP-Ag enhanced their sense of ownership and ensured that the experience, expertise and perspectives of a wide range of stakeholder groups were reflected in the Plan. Including a variety of stakeholders in the process allowed for diverse experiences with adaptation actions to be shared, strengthening recommendations and achieving broad-based support.
- Using institutional arrangements that have been proven effective and conducive to collaboration leverages existing links and ensures continuity of objectives. In the case of the NAP for Agriculture formulation in Uganda, this included a set of actors with clear connections between policy and implementing stakeholders (extension system and farmers). In addition, the steering committee included a wide spectrum of other stakeholders: farmers, ministries, academia, private sector and the Uganda National Farmers Federation.
- A gender-responsive NAP calls for engaging a deliberate gender lens at every level, addressing structural challenges and gender relations in prioritization of adaptation actions, and aligning actions with national gender plans and related policies.
 Prioritized actions should be accompanied by a costed gender-responsive budget and a performance monitoring framework (FAO and UNDP, 2018).
- Targeting participants with appropriate backgrounds and skills and adapting training
 material to local contexts increases effectiveness and understanding. Proper selection
 of participants based on their background, expertise, roles and responsibilities ensures that
 training material is well-received, and capacities built are effectively utilised. In order to increase
 relevance and have a bearing on future uptake, training content should be adapted to the
 needs of participants by integrating local contexts and on-the-ground examples and presenting
 material in relation to the day-to-day tasks of different stakeholders.
- Data on disaster loss and damage (both direct and indirect losses) can be useful for adaptation planning. Such information allows planners to identify high-risk actions as well as more vulnerable districts. District officials can then be trained to use risk information products (maps, indices) and to design climate- and disaster-risk informed annual development plans.

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Further information

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www.adaptation-undp.org/naps-agriculture

- Germany's Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)
 - www.bmu.de
- International Climate Initiative (IKI) www.international-climate-initiative.com

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