



Climate & Development  
Knowledge Network

# LEARNING STORY

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## Key messages

- Posing the right research questions at the right time can be catalytic for generating interest and support from government, donors and civil society for specific evidence to inform decision-making.
- Continuous engagement with key political actors and decision-makers – including senior and mid-level technocrats – is needed to build trust and obtain buy-in for new knowledge and evidence.
- In-country presence is crucial for project ownership. In Uganda, the CDKN country coordinator and study consultant had ongoing access to stakeholders, which facilitated participation from sectors, and supported knowledge production and dissemination.
- A well-resourced communication plan with layered knowledge products packaged in varied formats for target audiences, coupled with different outreach events nationally and internationally, proved necessary to enhance knowledge uptake.
- In Uganda, providing robust evidence on the benefits of adaptation helped to elevate the importance of climate change in national government institutions and policies.

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**This learning story forms part of the CDKN *Knowledge for Change* series, which reflects on the common challenges, lessons and successes CDKN and its partners have encountered in facilitating evidence-based decision-making to accelerate climate action. The aim of this work is to investigate different tools and approaches for enhancing the use of knowledge in decision-making, the barriers encountered in facilitating change, and useful lessons for others who navigate similar challenges.**

## How research and engagement influenced Uganda's climate change adaptation landscape

This learning story shares lessons from undertaking an economic assessment study of the impacts of climate change in Uganda from 2013–2015. The aim is to understand the barriers and enablers to collaboratively generating and obtaining buy-in for new evidence among stakeholders across various sectors, as well as how to enhance the uptake and use of the research results in policy and planning activities.

We document the process and strategies project actors and the Ministry of Water and Environment (as the study owner) employed, as well as the achievements and lessons learned. Online and face-to-face interviews were conducted (from July 2020 to May 2021) with those who participated in the study design and execution, including decision-makers who have used the products to inform policy and planning. Assessing the study process a few years after it was conducted has allowed interviewees to reflect on its impact.



Kalerwe Market, in the suburb of Kampala city. © Yasin Nsubuga

## Introducing the Uganda economic assessment

Between 2011 and 2012, discussions between the leadership of CDKN and Uganda's Ministry of Water and Environment saw CDKN propose the idea of supporting a study on the economic impact of climate change in Uganda. The study was suggested as several countries had conducted similar assessments that often led to enhanced government interest and investment in climate compatible development.<sup>1</sup>

The CDKN-Uganda government conversations revolved around how to generate the economic costings and analysis to spark interest in climate change by highly-placed individuals within the Parliament of Uganda, and the treasury and finance departments, whose primary concern was economic development and poverty reduction, versus what was understood as more peripheral environment ministry issues.

**“The concept or conversation was on what can bring climate evidence to the attention of policy-makers in Uganda. For example, in the UK it was the Stern Report, and CDKN was trying to copy the idea.”**

– Carl Wesselink, former CDKN Regional Director for Africa

Once formal support was achieved, the project – an economic assessment of the impacts of climate change in Uganda and adaptation options – was implemented between 2013 and 2015. While the study was directly supervised by CDKN, it was coordinated in the country at first by the former Climate Change Unit, and then by the current Climate Change Department in the Ministry of Water and Environment.

The study sought to generate evidence of climate change impacts and adaptation options across four sectors of the Ugandan economy (agriculture,<sup>2</sup>

water,<sup>3</sup> energy<sup>4</sup> and infrastructure<sup>5</sup> [including housing and transport]) and through five case studies, including:

- The Kampala urban area, focusing on housing, infrastructure and flooding, in close collaboration with the Kampala Capital City Authority;<sup>6</sup>
- The Karamoja region, focusing on agriculture and livestock in different agro-ecological zones;<sup>7</sup>
- The Mt. Elgon region, focusing on coffee production in Bududa district;<sup>8</sup>
- The Mpanga river catchment, focusing on water and energy;<sup>9</sup> and
- Health issues in the districts of Kabale and Tororo, focusing on malaria prevalence.<sup>10</sup>

The study was delivered by a team composed of experts drawn from a consortium led by Baastel (an international consultancy firm), Makerere University (Uganda), Metroeconomica (UK), University of Wolverhampton Centre for International Development and Training (UK) and

the University of Pretoria (South Africa). In all, more than 20 consultants were involved in the study, most of them international consultants, and seven local experts from Uganda.

The study's main message was that the “cost of inaction” on climate change in Uganda was 20–24 times higher than the cost of action and/or adaptation, estimated at between US\$ 273–427 billion.<sup>11</sup> It also provided costings for not pursuing adaptation across different sectors. For example, the study concluded that by 2050 the impacts of climate change could result in: a 40% reduction in the yield of staple crops (a loss equivalent to 16% of Gross Domestic Product), a 50–75% decline in coffee production and exports (reduced foreign exchange), significant energy supply deficits (biomass and hydro-electricity generation), and rising water supply deficits, with losses estimated at US\$ 5.5 billion that could be as high as US\$ 50.3 billion if income elasticity is taken into account.<sup>12</sup>



After the rain, Kisenyi, Kampala. © SDI via Flickr

## What the study achieved

### Study findings facilitated the integration of climate change in national and sector development plans

Although Uganda's National Climate Change Policy<sup>13</sup> required government ministries, departments and agencies to mainstream climate change in national, sectoral and local development policies and plans, at the time of undertaking the economic assessment, the mainstreaming process had not yet taken root. The study's message that the "cost of inaction was 20–24 times higher than the cost of action"<sup>14</sup> became the key takeaway for government and development planners, emphasising the medium- to long-term financial burdens if Uganda did not invest in adaptation "now". This prompted government to start taking the climate change challenge more seriously in policy and development planning.

**"The study produced a statistic that the cost of inaction was more than 20 times higher than the cost of action... This was an awakening call to government and development practitioners in the country."**

– Paul Mafabi, ex-Director Environmental Affairs, Ministry of Water and Environment

The study helped the Climate Change Department strengthen the case for mainstreaming climate change in the development planning process. Without this evidence, it would have been more difficult or time-consuming for the Climate Change Department, and even the Ministry of Water and Environment, to convincingly engage the National Planning Authority or Ministry of Finance on climate change. The study enabled deeper conversations with

the National Planning Authority, at the time preparing Uganda's Second National Development Plan (NDP II)<sup>15</sup> for the period 2015/16–2019/20, on strengthening climate compatible development in national planning. Climate change was subsequently incorporated in the NDP II, which also built a firm foundation for incorporating it even further in the Third National Development Plan (NDP III) for the period 2020/21–2024/25.<sup>16</sup>

**"The economic assessment study results informed and influenced the incorporation of climate change in NDP II, and now NDP III."**

– Edith Kateme, ex Deputy Executive Director at the National Planning Authority

But there were other factors that enabled mainstreaming. CDKN leadership (the CEO and Africa Regional Director at the time) also had meetings with top officials at the National Planning Authority,<sup>17</sup> some of whom became prominent climate change champions in the country. The Authority's Deputy Executive Director was a member of the study's Project Steering Committee and attended some of the study's workshops.

As sector and local development plans must be aligned to the National Development Plan (NDP), incorporating climate change in the NDP II provided an essential foundation for mainstreaming climate change at higher planning levels. However, the extent to which sectors have incorporated climate change in their development plans has varied greatly (see Box 1).

### Box 1: Integration of climate change and the study results into various sector development plans

- **Water and environment:** The water and environment sector development plan for the period 2015/16–2019/20 greatly benefited from the study results (by incorporating projections, risks, economic costs, and adaptation recommendations) and helped mainstream climate change.
- **Agriculture:** The agricultural sector used the study results as the evidence base to inform incorporating climate change adaptation in the sector's strategic plan for the period 2015/16–2019/20, and the agriculture sector National Adaptation Plan, which was launched in 2018. The agriculture sector study report,<sup>18</sup> summary booklet<sup>19</sup> and documentary film<sup>20</sup> were important reference points in prioritising adaptation actions for the sector National Adaptation Plan. In addition, the agriculture sector produced guidelines for sector climate change mainstreaming, which also refer to the economic assessment study results.
- **Lands, housing and urban development:** The lands, housing and urban development sector development plan (2015–2020) and national urban development policy incorporate climate change, but there is no reference to the study results, even though social infrastructure (housing) was one of the sectors assessed.<sup>21</sup> Nevertheless, the sector has produced climate change mainstreaming guidelines that refer to the economic assessment study results as justification for mainstreaming climate change.

Lesser success has been achieved by the infrastructure and energy sectors, despite the study results providing evidence for integrating climate change into their sector development plans.

### Visible and relevant evidence helped make the case for investment and strengthen institutional structures

The economic assessment study results further strengthened the case for increased investment in the environment and natural resources to mitigate the impacts of climate change and foster economic development. This was reinforced by another study on the economic contribution of water and environment management to Uganda's economy, which was completed in October 2016.<sup>22</sup> These two studies thus generated the impetus for increased funding for the Ministry of Water and Environment, in particular, which required more resources to be allocated to the environmental sector. This was especially the case for the underfunded environmental services, wetlands and forestry departments in the Ministry to address the widespread wetland and forest degradation important for enhancing resilience.

A technical staff member interviewed from the Ministry of Finance revealed that the environment sector had, at the time of writing, become one of the top priority sectors in government because it is understood as an enabler to achieving resilient and green development.

**“For the environment sector, the study results provided a latitude for us to start negotiating for increased funding for the sector.”**

– Paul Mafabi, ex-Director Environment Affairs, Ministry of Water and Environment

While the Ministry of Finance made it mandatory for sectors and local government to mainstream environment and climate change in their plans and budgets in 2016/2017, to date there are no substantial additional

budgetary allocations for climate change in the national budget. At the same time, competition for limited resources (many of which originate from external donors) remains high. Furthermore, since the end of the study, Uganda has lost the three main champions from the Ministry of Water and Environment and the National Planning Authority, which has affected engagement with the Ministry of Finance/Treasury to obtain additional resource allocations for addressing environment and climate change.

In addition to enhancing budgetary allocations to the environment sector, the study also positively impacted institutional structures for climate change by increasing the value and visibility of the Climate Change Unit, spurring its elevation into a

department. The assessment made it clear that a strengthened institutional structure was required within the Ministry of Water and Environment to coordinate climate change action in the country (see Box 2).

In April 2021, the Ugandan Parliament passed the National Climate Change Act 2021<sup>23</sup> that was assented to by the President in August 2021 and came into force in January 2022. The law refers to the high economic cost of climate change (a data point derived from the study). During the law's preparation, the Climate Change Department used the study knowledge products (a summary booklet and documentary film outlined below) to make a case to cabinet and parliament to pass the Climate Change Bill into law. The law now guides and regulates climate action in the country.

#### **Box 2: Strengthening climate change coordination: Elevating the Climate Change Unit to a department**

At the start of the study, climate change activities in Uganda were coordinated by the Climate Change Unit, created in 2008 and supported through donor funding. However, the Unit had not been created within regular government structures.

The Ministry of Water and Environment had for some time, with support from donors and civil society, been lobbying government (the Ministries of Public Service and Finance) to regularise the Unit in the public service structure and make it a department so it could be properly staffed and receive a budget. The study's Steering Committee – the National Climate Change Policy Committee (NCCPC) – had also recommended elevating the Unit into a Department under the Ministry of Water and Environment, or into an autonomous Commission.

As the economic assessment study increased the Unit's visibility and relevance, the need for a stronger institutional structure to implement climate change became clearer. The Unit was transformed into the Climate Change Department in July 2014.

**“The early study results showed that Uganda was greatly impacted by climate change and something had to be urgently done to address the impacts. The study evidence was used to engage the Ministries of Public Service and Finance to put in place an institutional structure to implement the NCCP.”**

– Climate Change Department/Ministry of Water and Environment staff interviewed

The Department is now led by a Commissioner (instead of a Coordinator), which is a legal and established position within Uganda's civil service. It now has permanent staff and a government budget allocation.



Cooking with firewood in Kibaale District, Uganda. © Mehmet Ozbalci via Shutterstock

### **A stronger evidence base enabled access to international climate finance**

The study results were instrumental in informing the preparation of project proposals for accessing climate finance from international agencies and donors. Project proposals that used the study findings were submitted to a range of donors (including the Green Climate Fund, Adaptation Fund, European Union, Global Environmental Facility, United Nations Environment Programme,

amongst others) and have been implemented by a number of national and international collaborating partners.

The proposals covered many issues, including enhancing subsistence farmers' and communities' resilience to climate change, such as through catchment-based integrated management of water<sup>24</sup> and wetlands;<sup>25</sup> scaling up agricultural adaptation in nine districts in the cattle corridor of Uganda;<sup>26</sup> and integrating climate resilience into agricultural and pastoral

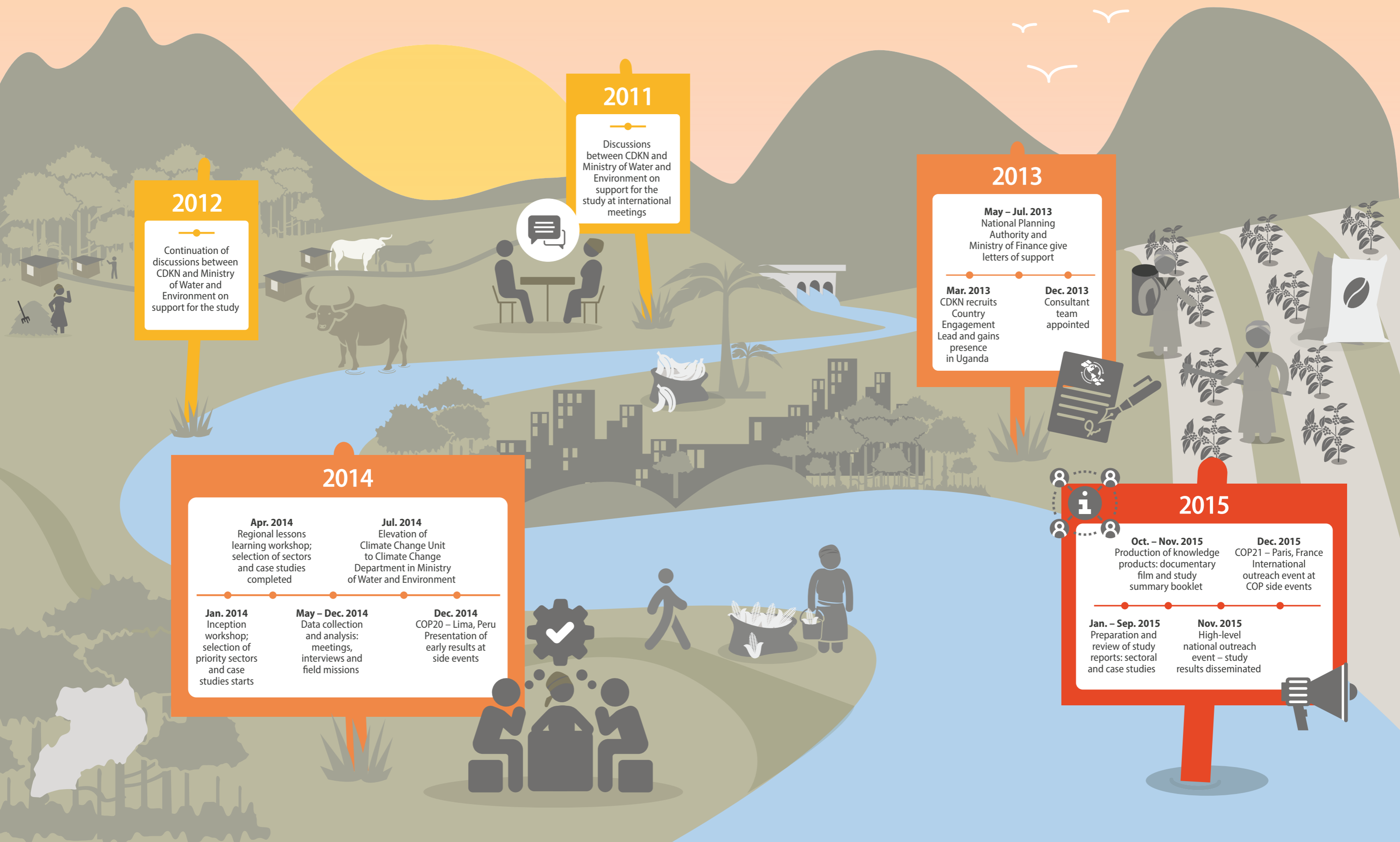
production through the Farmer Field School Approach.<sup>27</sup> Informed by the study results, the Climate Change Department submitted a National Adaptation Plan readiness proposal titled 'Strengthening adaptation planning in Uganda' to the Green Climate Fund, which was approved. The proposal refers to the cost of inaction from the economic assessment study as one of the justifications for the funding request.



Small log farming, Uganda. © Rod Waddington

FIGURE 1.

# Timeline for developing the Uganda economic assessment study



2012

Continuation of discussions between CDKN and Ministry of Water and Environment on support for the study

2011

Discussions between CDKN and Ministry of Water and Environment on support for the study at international meetings

2013

May – Jul. 2013  
National Planning Authority and Ministry of Finance give letters of support

Mar. 2013  
CDKN recruits Country Engagement Lead and gains presence in Uganda

Dec. 2013  
Consultant team appointed

2014

Apr. 2014  
Regional lessons learning workshop; selection of sectors and case studies completed

Jul. 2014  
Elevation of Climate Change Unit to Climate Change Department in Ministry of Water and Environment

Jan. 2014  
Inception workshop; selection of priority sectors and case studies starts

May – Dec. 2014  
Data collection and analysis: meetings, interviews and field missions

Dec. 2014  
COP20 – Lima, Peru  
Presentation of early results at side events

2015

Oct. – Nov. 2015  
Production of knowledge products: documentary film and study summary booklet

Dec. 2015  
COP21 – Paris, France  
International outreach event at COP side events

Jan. – Sep. 2015  
Preparation and review of study reports: sectoral and case studies

Nov. 2015  
High-level national outreach event – study results disseminated

## Key enablers of success

A number of important lessons emerged in the process of developing the economic assessment (see Figure 1), and several factors played a role in contributing to the uptake of the study within Uganda's planning and policy processes. Six of the most significant enabling factors are discussed below.

### 1. Continuous engagement with government top leadership over time, enabled by in-country presence, built the trust needed to kickstart the project and encouraged ownership and buy-in

CDKN leadership considered it important to first attract the attention of key decision-makers and obtain buy-in for the study in order to ensure its results would be used to inform policy and planning.

The conversation began with both the Minister and Permanent Secretary of the Ministry of Water and Environment, who became the early and main champions for the study. The Minister emphasised the importance of obtaining economic costings to convince the Cabinet, in particular the Ministry of Finance, that climate change was causing losses and damages that were costly to the Ugandan economy. At that time, the perception in Uganda government circles was that while climate change was happening, it was not a significant threat to the economy.

**"At a 2014 UN meeting, the Ugandan Minister again asked me, 'Sam, where is the number? I need the number to talk to the Ministry of Finance. Until I get the number, I cannot talk to the Ministry of Finance.'"**

– Sam Bickersteth, former CEO of CDKN

Over two years (2011–12), CDKN held face-to-face engagements with the Minister and Permanent Secretary; the Chairperson of the National Planning Authority; and the Commissioner of



Herding livestock in Bugoye, Kasese District, Uganda. © Vlad Karavaev via Shutterstock

Climate Change at various international meetings. Following these discussions, CDKN realised that deeper interactions (beyond short meetings) would be required to obtain buy-in for a project of this nature. A permanent presence in Uganda was thus required to facilitate direct and continuous talks with the Ugandan government.

Formal commitment for the study was achieved in 2013, four months after CDKN recruited a Country Engagement Lead (CEL), resident in Uganda. The CEL was a lecturer at Makerere University and had been part of the team that developed Uganda's National Climate Change Policy. He was, therefore, well known within the Ministry of Water and Environment, as well as by the government in general and in some donor circles. He was regarded as a person of high integrity and influence, and respected for his knowledge of the climate change landscape and actors. The CEL's informal networks enabled quick and direct engagements with the government, which meant when the study concept note was presented to the Climate Change Unit/Ministry leadership and staff, it was approved.

In May 2013, the Permanent Secretary provided a letter of support for the study, which was the first important milestone achievement. This letter was also used to engage both the National Planning Authority and the Ministry of Finance, Planning and Economic Development, who also expressed buy-in for the study and provided letters of support. The latter is among the requirements for any government agency in Uganda to proceed with a donor-funded project.

The letter of support from the National Planning Authority was also critical for government uptake of the study results, as the Authority is responsible for coordinating and harmonising development planning in the country. The Authority's support would mean a greater chance that the results and evidence from the study would be used to inform mainstreaming of climate change in Uganda's development planning and investment processes.

Strong on-going relationships between CDKN and the Ministry of Water and Environment, as well as with different government ministries, departments and agencies, Makerere University and the UK's former Department for International Development (DfID), who played a role in the study conceptualisation and design, all served to cement the work. An in-country presence of both the consultant (Baastel study team leader) and CDKN (represented by the CEL) enabled continuous engagement with the Climate Change Unit (and later the Department) at the Ministry of Water and Environment and various sectors. Apart from the CEL, the consultant team also had local experts who had informal connections in the sectors and were familiar with actors in the climate change arena. Visits between the broader CDKN team and key stakeholders further complemented these relationships, as personal connections started to form between the non-Uganda-based CDKN team and the government who would meet regularly at COPs, intersessional UNFCCC meetings or during visits in Uganda.

## 2. A consultative approach generated support from key stakeholders and was needed for successful implementation

The project used a diversity of methods to engage stakeholders in the study design as well as the sector and case study selection. Methods included data collection policy dialogues, workshops and meetings (formal and informal). The study team worked with stakeholders from national government (about 150) and about 350 participants drawn from sub-national/local governments, civil society, academia, private sector and donors in Uganda. Consultations were also conducted outside of Uganda on lessons learned by other countries within East Africa (Kenya, Rwanda and Tanzania) and Nepal.

While the Ministry of Water and Environment leadership (the Minister and Permanent Secretary) did approve and support the study idea, some senior and mid-level technocrat staff at the then Climate Change Unit and within the ministry, along with others from key targeted sectors, indicated they had not been involved in the conceptualisation stage. This led to the view of some that the study seemed not to have been sufficiently sold to all beneficiaries before it started.

**“For some technocrats, the study was not what the country needed most, and its results were not seen as concrete enough, beyond some potential policy action.... What was rather needed was action to tackle the country’s more urgent, emerging challenges like poverty, health, hunger, energy deficit, etc., and not another study that would sit on a shelf.”**

– Olivier Beucher, Baastel Consultant

In response, the NCCPC was adopted as the Project Steering Committee and the Technical Working Group on Climate Change acted as the advisory body of the study. The purpose of these committees was to gain support across sectors and practitioners and ensure a legitimate process in which all key stakeholder groups felt they were represented. They included members from the various government ministries, departments and agencies, civil society, private sector, academia and donors. This helped to increase buy-in across sectors. Furthermore, doing so successfully created champions of the study across civil society and various levels of government (including in the Ministry of Water and Environment, National Planning Authority and the Ministry of Finance) to foster support for and potential uptake of its results. Each priority sector (agriculture, energy, water and infrastructure) had a study focal point who worked with the consultant Baastel in organising sector meetings and data collection.

The availability of (quality) data was a challenge, however. Lack of data related to the cost of past climate events (e.g., droughts and floods) made it difficult to put together a baseline that captured the full burden of “current climate variability”. Yet, capturing the current costs of climate change and the “adaptation deficit” represented some of the most impactful numbers for stakeholders, particularly the Ministry of Finance. For the Uganda study,

many data gaps existed, and the study team combined extrapolations using estimates, economic modelling (to work out costing) and local-level case studies to help address these gaps.

Cross-sectoral meetings were organised by the Climate Change Unit and later the Climate Change Department, and these were chaired by high-level leadership of the Ministry of Water and Environment. The consultant also held small meetings (including informal ones) with technocrats in the selected sectors. The consultant regarded these as more effective in obtaining data and information for the study, while larger meetings or workshops were better at raising awareness on climate change in general and the study overall.

While some sectors, like agriculture and water, were very supportive of the study team, engaging with others, such as the energy sector, was more challenging. The Energy Ministry had limited interest in climate change issues, given Uganda’s engagement in oil and gas development. The ministry was also receiving significant funding from development partners and the government budget, so there was less interest in a project that did not offer financial resources. As the main source of electricity in Uganda is hydropower, the ministry understood that the energy sector was already achieving low emissions. However, over time the ministry started to better appreciate how their sector was impacted by



Kidepo River, seasonal river in Karamoja sub-region of Uganda. © FCG via Shutterstock



climate change, when, for example, electricity generation was affected by some rivers and small hydropower dams drying up.

The study methodology, including the modelling and criteria for selecting sectors and case studies, was presented and validated at an inception workshop held at Makerere University in January 2014. The workshop provided an opportunity to introduce the objectives and approach of the study to the large range of stakeholders (government ministries, departments and agencies, civil society, development organisations and academia), and understand their expectations. The four sectors and case studies selected were then validated by the Climate Change Unit, the Project Steering Committee and the sectors concerned; and were presented at a regional lessons learned workshop held in April 2014 for further discussion and validation (see Box 3).

The inception and regional workshop, and a literature review and interviews on learning from other countries' economic assessments, all fed into a "lessons learned and best practices" document<sup>28</sup> that informed the direction of Uganda's study.

### **Box 3: Learning from other experience: Regional lessons learned workshop**

CDKN, together with the then Climate Change Unit and the study consultant, co-organised a two-day workshop in Kampala in mid-April 2014 focussing on regional learning from conducting assessments of the economic impacts of climate change.

While the regional workshop provided an additional opportunity for Ugandan participants and partners to contribute to and validate the study process and approach, the aim was also to learn lessons from previous DfID-funded economic assessments conducted in Kenya,<sup>29</sup> Tanzania,<sup>30</sup> Rwanda<sup>31</sup> and Nepal.<sup>32</sup>

The East African economic assessment studies demonstrated that if the Uganda study (or any other future one) was to generate quality evidence for impact, it had to be limited in scope and focus on a few sectors. For example, the Kenya and Rwanda studies had covered many sectors because stakeholders saw most as being important, and consequently some were not considered to have generated "quality evidence" to inform sector policy and planning.

Another learning for Uganda was that the regional economic assessment studies had taken an approach that monetised the impact of climate change. This strategy had proved valuable in engaging and obtaining buy-in from finance ministries and planning commissions in those countries (Kenya, Rwanda and Tanzania) to invest in abating climate risk. These regional economic assessments had helped to build awareness of the potential impact of climate change not just as an environmental problem, but also an economic development one.

The Ugandan team also learned that where there was strong buy-in, there was strong impact. For example, the Kenya and Rwanda studies had generated high-level buy-in, and this contributed to strong policy influence. In contrast, the Tanzania study did not garner high-level champions, which resulted in a lower impact. Learning from this, the Uganda study concentrated on generating high-level political buy-in and ownership of the study from the start.



Spreading coffee beans to dry in Kilembe, Kasese district, Uganda. © The Road Provides via Shutterstock

### 3. Reaching agreement on the study focus required balancing technical rigour and political priorities through transparent and clear engagement processes

The study had been designed to cover those economic sectors heavily impacted by climate change and where investments in building climate resilience would also deliver maximum socio-economic benefits (such as reduced vulnerabilities, increased incomes, job creation and poverty reduction). Therefore, an engagement process was needed to select such sectors (at most five, according to the consultant) and case study areas. The inception workshop provided the first opportunity to do so.

Perhaps the main challenge to selecting sectors was that participants considered each one to be equally important, with each stakeholder advocating for their sector(s) to be part of the study. The completed National Climate Change Policy had already prioritised 12 sectors and actions for adaptation (but without an economic evidence base). As such there was a long list to draw from, and it was not certain that the study analyses and modelling could support “already prioritised adaptation actions” in national policy.

**“We had to take up some of the predetermined priorities and try to see if the study analyses could support the actions (based on the economics), and whether the analysis would make a strong case for some of them.”**

– Anil Markandya, Study Consultant

After a lengthy discussion, inception workshop participants agreed that the study should only focus on a few sectors (four to five). They also agreed on six weighted criteria to guide their selection: the sector’s (1) contribution to GDP, (2) contribution to employment, (3) national budget allocation or government investment, (4) degree of sensitivity to climate risk and the associated or potential damage/economic loss, (5) likely impact to most vulnerable populations, especially women and youth, and (6) availability of quantitative data for use in economic modelling. Those ranked highest and subsequently selected were agriculture, water, energy and social infrastructure (which included transport and human settlements).

The selection of case studies was also conducted at the inception workshop. Unlike national sector assessments that

would be based on modelling and, therefore, had many assumptions, case studies would have in-depth analysis conducted at a limited spatial scale (e.g., district or sub-regional level) and would thus provide valuable evidence to back up the results of the sectoral studies. Case studies would have to downscale assumptions and connect national sector assessments to the real situation on the ground and, at the same time, provide tangible guidance on local-level risk management.

Criteria for selecting case studies were discussed and agreed upon during the inception workshop. These included: (1) the agro-ecological zone (to ensure that selected cases cover Uganda’s principal zones), (2) severity of climate change impacts in the area selected, (3) main livelihood sources (to cover the country’s main economic activities, including subsistence farming, cash crop production for export, pastoralism and agro-pastoralism), (4) potential availability of data for analysis,<sup>33</sup> and (5) whether the case/area selected had previous, ongoing or planned climate and development projects that would use the evidence generated.

Five case studies were pre-selected: (1) Kampala case study, tailored to the (urban) infrastructure sector assessment, (2) Mt. Elgon/Bududa case study, tailored to the agriculture sector assessment (focused on coffee as a cash crop) in a mountainous environment, (3) Karamoja case study, tailored to the agriculture sector assessment (focused on agro-pastoralism in a semi-arid region), (4) the Mpanga catchment case study, tailored to the water and energy sector assessment (watershed management and hydro-electricity generation), and (5) the health case study focusing on the impacts of climate change on malaria in Tororo and Kabale districts. The health case study was particularly unique because the health sector was not part of the national sector assessments but, together with the Karamoja case study, was included due to the suggestion of the Uganda country office of the UK’s former DfID.



Mt. Elgon, Uganda. © Rod Waddington

#### 4. Effective packaging and dissemination of knowledge is crucial for uptake, where information is shared in a “layered” way, through varied formats and a range of channels

One of the lessons that emerged from the East Africa economic assessment studies was that they were challenged by the inability of non-climate experts and policy-makers to translate study results into practical planning and budgeting steps for their sectors. It was recommended that future studies (including the Uganda study) should also develop action plans that government technocrats and policy- and decision-makers could use to translate findings into practical policy steps and interventions. Despite this lesson, the Uganda study project was not able to deliver this, since the study team was composed of technical rather than communications experts and much of the focus was on the technical deliverables – as is often the case in similar projects.

Nonetheless, the study produced high-quality outputs with compelling evidence that could represent a turning point for climate change investment in Uganda. The study initially shared these findings through a number of reports, including:

- Climate projection/scenario for Uganda;<sup>34</sup>
- Four sectoral assessment reports;
- Six case study reports; and
- An integrated study report.<sup>35</sup>

Having determined the economic costs of climate change, it was expected that the Climate Change Department would use the evidence to convince the Ministry of Finance and the National Planning Authority that increased investment in climate compatible planning and development was necessary. Given the technical nature of the study reports, with substantial quantitative data (and many figures), there was a need to extract and

interpret the key statistics and high-level messages, for these to be more easily understood by non-technical users and policy-makers.

Consequently, CDKN assisted and produced two knowledge products: a policy booklet with a high-level summary of results<sup>36</sup> (which it produced internally, in an easy-to-read format) and a documentary film<sup>37</sup> to communicate the study results and messages to a wider audience. These products, especially the film, proved to be the most important in disseminating the study results.

Through this process, the team learned that a solid communications plan and a layered approach that involves both technical and knowledge management experts working across formats (text, audio-visual) is necessary to deliver quality products with key messages well-packaged for target audiences. It also proved necessary for CDKN and the Ministry of Water and Environment to work closely with the study team to develop communication materials

for the key messages to be pitched correctly to the decision-makers.

In addition, the team learned that the uptake of such products depends on outreach via multiple engagements (meetings, etc.) as well as follow-through via email and other forms of targeted, tailored digital outreach. There was also a need to ensure that the messages could inform key decisions about resource allocation. However, this was largely not achieved through the knowledge products, which were more general in nature.

Nevertheless, the outreach events that were used to disseminate the study knowledge products helped to raise awareness on the study and climate change more generally. These included a one-day high-level outreach event held in Kampala in November 2015, attended by over 130 high-level participants. A side event was also held in December 2015 at COP21 in Paris, France, to disseminate the key results of the study to the global climate change community.



Women carrying water in Uganda. © Dennis Diatel via Shutterstock



Road in Kampala. © Kent MacElwee

By presenting the study results in a variety of national and international fora, and achieving high press coverage, the key findings of the study were easily conveyed and generated substantial debate that shaped the country's climate agenda.

**“Now with these costs in hand, I can go to the Ministry of Finance and make the case for programmes with genuine benefits. That is why it's important to do these studies.”**

– Minister of Water and Environment, Uganda, speaking at the COP20 Uganda side event

##### **5. The timing of a project can be catalytic for raising interest and support for an issue, especially if it coincides with major global and national processes and events**

At the start of the study, Uganda was already facing the impacts of climate change and extreme weather events (flooding, droughts, heat waves and water shortages), which were impacting the economy and its population.

The timing of the study was good – coincidentally and not by design – and this helped to raise the importance

of the study in government. Global events at the time were also influencing government priorities, including the discourse around the global sustainable development agenda and the inclusion of climate change as one of the Sustainable Development Goals. In addition, the following events were occurring:

- By 2013, Uganda had completed formulating its National Climate Change Policy (and implementation strategy), which needed to be implemented. The Ministry of Water and Environment was seeking research evidence (monetary figures) to convince the Ministry of Finance to allocate more financial resources for the implementation of the Policy. Thus, the Ministry's top leadership (Minister and Permanent Secretary) and technical staff welcomed and supported the study to provide this information.
- In 2014–2015, Uganda was preparing its Intended Nationally Determined Contribution (INDC)<sup>38</sup> in the run up to COP21 ahead of the Paris Agreement, and the government required evidence that could inform its INDC process and contribution to the Agreement. As adaptation is Uganda's main climate change priority (mitigation being secondary), the economic

assessment study came at a critical time.

**“The study came at a time when Uganda was preparing its INDC ... and helped provide inputs to this process.”**

– Senior Climate Change Officer, Climate Change Department/ Ministry of Water and Environment

- During the same period, Uganda was preparing its second NDP and sector development plans. The study was able to inform integration of climate change in the plans, which, in turn, rallied support for the study from the National Planning Authority and sectors.
- The Ministry of Finance had indicated in discussions with the DfID country office that it wanted to play a more significant role and engage in the climate change agenda. However, the Ministry was mainly constrained by lack of data on the costs of climate change risk, which was needed to inform planning and investment in climate change action. This study was, therefore, of interest to the Ministry and provided an entry point into the climate change discussion.

## 6. Local suppliers and champions are not only crucial for successful delivery and ownership, but also to navigate local political dynamics

For such a complex project, hiring competent suppliers with a range of skills and networks is important to produce quality results. Metroeconomica (one of the study partners) was already known to CDKN and it had a very experienced economist on the team who led the economic modelling. Similarly, the consultant team (Baastel and partners) was competent in the technical delivery of the study, and well-placed to support a participatory process by virtue of their in-country office. The inclusion of local consultants and content experts from Makerere University on the study team was a vehicle for capacity strengthening and helped drive local ownership and buy-in because of their formal and informal networks in the country.

### Some remaining challenges

#### Limited sub-national and local action, due to capacity constraints

Although there has been some success in incorporating climate change in national and sectoral plans, challenges remain for doing so at the sub-national or local and district levels – with the exception of Kampala city.



Olive Sabila Chemutai tends to her tomatoes on her homestead in Kapseror Village, Kapchorwa, Uganda. © Kate Holt via AusAID

The Kampala Capital City Authority successfully used evidence from the Kampala case study<sup>39</sup> (the climate projections, climate impacts analysis, and economic costs for housing and infrastructure) to inform the formulation of the Kampala Climate Change Action Strategy in 2016.<sup>40</sup> Priority adaptation options in the strategy are incorporated in the Authority's plans and service delivery. The Authority's Strategic Plan for 2020/21–2024/25<sup>41</sup> has "City Resilience" as one of its pillars. In addition, the Authority's Climate Change Projects Office, set up in 2016, is implementing some climate change projects whose design was informed by the economic assessment evidence.

By contrast, other districts where case studies were conducted have not yet succeeded in mainstreaming climate change in their five-year District Development Plans. The main barriers for local governments are weak technical and institutional capacity. District staff lack climate change knowledge and skills, and there are no institutional structures to guide climate change mainstreaming and its implementation. Although the institutional structures are now defined by the National Climate Change Act 2021, they are not yet operational. Most senior technical staff in local governments perceive climate change as only relevant for the environment and natural resources sectors.

Another barrier is financing. Government budget funding to local governments is limited by budget ceilings provided by the Ministry of Finance, and there is no dedicated funding for climate change at local government level. There are also no climate change performance indicators to incentivise districts to incorporate climate change in plans and budgets.

#### Government has faced challenges in tracking climate-related spending – until now

While there has been integration of climate change within planning, similar integration has not occurred in national and local government budgets, which constrains actual

implementation. Nonetheless, there have been a few strides up until now. Once the Ministry of Finance became convinced that Uganda's development targets would not be achieved if climate change risks were not tackled, it started taking steps towards financing climate change. In 2016 the Ministry made directives to all government ministries, departments and agencies as well as local governments to start embedding climate change in their plans and budgets.

**"Having realised that the cost of inaction was very high, ... the Ministry of Finance in 2016 issued a budget circular instructing all MDAs [ministries, departments and agencies] and local governments to incorporate climate change in their budgets."**

– Senior Climate Change Officer,  
Climate Change Department

**"Knowing that the cost of inaction is more than 20–24 times higher than the cost of adaptation, the Finance Ministry got concerned that the country's medium- and long-term development targets would not be met, if climate change is not addressed. Consequently, the Ministry made it a requirement for sectors and local governments to incorporate climate change in their budgets."**

– Assistant Commissioner,  
Ministry of Finance, Planning and  
Economic Development

In the 2016/17 Budget Call Circular, the Ministry of Finance made it a requirement for all ministries, departments, agencies and local governments to submit Budget Framework Papers for the 2017/18 Financial Year only after incorporating climate change interventions (and budget lines) within their annual

budget requests. However, it is still not possible to ascertain whether increased funding has been realised.

Some ministry-based interviewees revealed that the main barrier to integrating climate change in national and sector budgeting is the current online budgeting system – the Programme-based Budgeting System (PBS). The system does not have climate change budget lines/codes, which inhibits climate change budget tagging and tracking. This reveals a disconnect between the requirements of the budget circular calls and the actual budgeting process.

In response, the Ministry of Finance, with support from the World Bank, is addressing this challenge through a Climate Change Budget Tagging (CCBT) process that commenced in 2018. A draft CCBT tool and manual have been produced to guide identifying, classifying and tracking of climate change allocations in the national budget. In the financial year 2018/19, the draft manual was used to train technical staff in four pilot sectors: energy, agriculture, transport, and water and environment (the same sectors of the economic sectoral assessments) and in four pilot districts (Kasese, Buikwe, Mbale and Gulu). Piloting of the budget tagging is said to be ongoing as well as gathering feedback and lessons learned from users that will inform improvement of the final CCBT before full implementation starts in the coming year or so.

Alongside the CCBT process, Climate and Disaster Risk Screening (CDRS) tools were also produced to complement the tagging, as well as conducting capacity building on their use. So far six CDRS tools have been completed by the World Bank and Climate Change Department (for water, agriculture, energy, transport, environment and health).

## Conclusion

The key lesson is that this work had considerable influence because it provided the right research at the right time. The project framed a critically-relevant research question for Uganda – What are the costs of inaction on climate change compared to the costs of adaptation action? – at a pivotal moment in the country's history and marshalled technically robust, compelling analysis to make the case for adaptation investments. Consultation with key national government actors was undertaken to coalesce interest and momentum behind the study's goals, and to agree on core research questions before the work started in earnest.

Other important lessons for supporting research uptake include that project implementation needs to be opportunistic in identifying and leveraging ongoing processes, programmes and low-hanging fruits that can accelerate momentum and provide co-financing. The interests of top political leadership also needed to be carefully accommodated to generate buy-in and ownership. However, while the importance of obtaining high-level support from key government agencies that would use the results proved critical, mid-level technocrats also needed to be brought into the process. Relationships, therefore, need to be cultivated at all levels. To achieve this, it was paramount to have team members based in-country who were familiar with the governance landscape, had strong networks and were committed to facilitating a successful process.

The experience in Uganda also demonstrated that using a variety of outreach and engagement modes that are mutually reinforcing can be highly impactful. A best practice approach<sup>42</sup> was applied to packaging robust and relevant evidence in a 'layered' way in a variety of shorter and longer formats so it was accessible and attractive to the target audience. Sharing this information through a variety of interactive forums (such as through personal networks, meetings and at international and national outreach events) as well as through digital channels and the media to amplify messages more widely, was also crucial. However, despite the study results influencing numerous policies and plans, limited action has resulted on the ground. To achieve implementation, further tailoring the study for different sectors and more long-term engagement is required. This highlights that initial research and outreach is insufficient to achieve change, if not accompanied by providing follow-up support and translating findings into the next steps of decision-making and action.

However, given the numerous policies, plans and proposals that have used this study's results, and the continuously evolving landscape, it is hoped that the study has provided a robust foundation for developing and demonstrating the economic case for action, which may spur implementation in different sectors in the future. With the Climate Change Department formalised and resourced, and processes underway to include climate change in national and sectoral budgets, it is hoped that Uganda is a few steps closer to climate mainstreaming.

## Endnotes

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