Global Gateway

Report

Assessment for forest financing at country level

Uganda

Clement Akais Okia

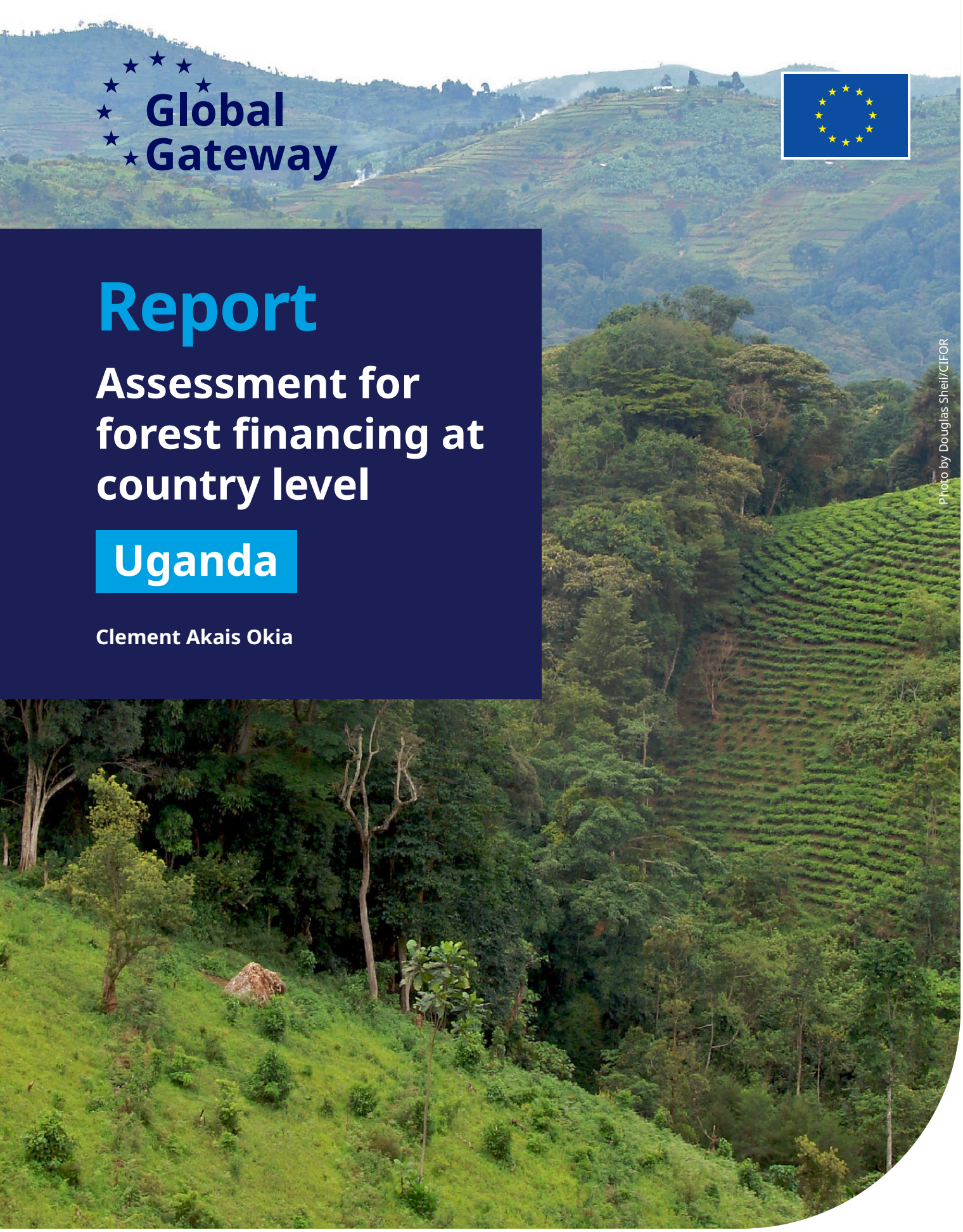

Photo by Douglas Sheil/CIFOR

December 2024

The EU-funded Forests for the Future Facility (F4) provides technical support to contribute to healthy forest ecosystems and forest-related value chains in Asia, Africa, the Caribbean and Latin America. The Facility is managed by DG International Partnerships Unit F2 – Environment, Natural Resources, Water.

F4F is working in collaboration with CIFOR-ICRAF on the EU Action "Financing for Forests".

Disclaimer
This assessment has been developed based on consultations with stakeholders and inputs from subject matter experts. It is important to note that the findings and recommendations presented herein do not necessarily reflect the official forest finance priorities or positions of Brazil. Additionally, this document does not represent the official views of the European Union. The content is intended to provide insights and support discussions in the context of forest finance but should not be interpreted as an endorsement of any specific policy or strategy.

Assessment context
This assessment of existing forest financing instruments at country level operates as the foundation for a proposed EU-funded Action 'Financing for Forest' FFF.

The Action intends to boost financing for forests at global level, by generating and sharing knowledge widely. In selected partner countries, technical assistance (TA) for the implementation of specific forest finance solutions/instruments will be provided. Prior the Action, an assessment is carried out in up to 15 countries to 1) help define which forest finance solutions will be tested and piloted and in selected countries (up to 7 countries will be selected for the Action "Financing for Forest"), 2) help EU Delegations (EUDs) and partners in other countries get a better understanding of existing financing mechanisms, and 3) generate knowledge about selected financial solutions/instruments.

As part of this assessment ahead of the Action, and to develop and implement a suitable methodology, the Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF) has been tasked to conduct the current assessment on forest finance mechanisms in several countries including Uganda over the period July-October 2024; CIFOR-ICRAF support is formally delivered under a contract with the Forests for Future Facility (F4F), a technical assistance facility to the EC INTPA F2 on matters regarding sustainable forest management.

Printed by Particip GmbH
This publication was produced with the financial support of the European Union.
Its contents are the sole responsibility of Particip GmbH and do not necessarily reflect the views of the European Union.

Project implemented by:

Lead company

Table of Contents

NATIONAL FOREST FINANCE ASSESSMENT iv

1 PART 1. MAPPING OF FOREST FINANCE SOLUTIONS IN UGANDA 1
1.1 Executive summary – Step 1 1
1.2 Introduction 1
1.3 Findings 3

2 PART 2. ASSESSMENT OF FOREST FINANCE SOLUTIONS IN UGANDA 8
2.1 Executive summary – Step 2 8
2.2 Assessment of forest finance solutions 8
2.3 Summary assessment of the forest finance solutions 13

3 PART 3. PRIORITIZATION OF FOREST FINANCE SOLUTIONS IN UGANDA 15
3.1 Executive summary – Step 3 15
3.2 Scoring and ranking of forest finance solutions 15
3.3 Presentation of scoring results 16

References 17

Annex
1 List of national partners consulted 19

List of tables

1 Assessment considerations for the selected forest solutions in Uganda 9
2 Summary assessment of forest finance solutions 13
3 A summary of key enabling environment elements for the forest finance solutions 14
4 Scores and ranks of selected forest finance solutions 15

NATIONAL FOREST FINANCE ASSESSMENT

1 PART 1

MAPPING OF FOREST FINANCE SOLUTIONS IN UGANDA

1.1 Executive summary – Step 1

Uganda has a very progressive and supportive policy environment to ensure sustainable forestry management. The relevant frameworks include the Uganda Forestry Policy, the National Forestry Plan, the National Development Plan and the Medium-Term Expenditure Frameworks, among others. Uganda's vision is to restore forest and tree cover from the current 13% to 24% by 2040. Although a number of innovative mechanisms for forest financing exist, they have not been widely operationalized in Uganda or are still in the planning stages. At the policy level, Uganda is mainstreaming Environment and Natural Resources (ENR) and climate change in the budget, undertaking various budgetary reforms to address issues of environmental management and forestry. The top priority needs for forest financing in Uganda include: restoration of degraded forests, forest products processing and value addition, and tree growing on farms/agroforestry. These were ranked highly as they require critical measures in achieving national and international commitments on restoration of degraded landscapes, Nationally Determined Contributions (NDCs) to the Paris Agreement on Climate Change, and the National Biodiversity Strategy and Action Plan (NBSAP). Forest finance solutions are promoted by both state and non-state actors. The existing forest finance instruments in Uganda include: fiscal reforms/ climate change budget tagging, subsidy schemes, carbon markets, Payments for Ecosystem Services (PES) excluding carbon, biodiversity offsets, national forest funds/conservation trust funds, and impact finance/blended finance. Some of the emerging forest finance tools include: green bonds, equity and debt, debt-for-nature schemes, bio-credits and oil-for-nature agreements.

1.2 Introduction

Background to forestry and forest finance in Uganda

Forests are critical for addressing multiple global and national challenges, and they contribute to the GDP and sustainable development of most countries (Li et al. 2019). The livelihoods of many people, including the rural poor, depend on forest goods and services. The forest sector globally contributed more than USD1.52 trillion to national economies in 2015 (Li et al. 2022). Its contribution to the national economy goes beyond the sector itself and extends to many other sectors through indirect and induced effects. The provision of adequate and sustained financing for forests is, therefore, of great importance to ensure continued supply of the wide array of forest products and services to rural communities and national economies, while reducing ecological degradation.

The contribution of forestry to Uganda's GDP was about 6% in 1999 (GoU, 2001) and 8% in 2020 (UBOS 2020). This figure grossly underestimates the actual contribution of forestry to GDP, household incomes and ecosystem services. This is because Uganda has not yet embraced integrated natural capital accounting in the National Accounting Framework, and thus its non-provisioning forest ecosystems are not captured. Additionally, a large part of the forest economy is informal and not covered by GDP, such as trade in wood fuel (charcoal and firewood) and non-wood products, as well as significant subsistence use of forest products. Despite the central role of forests and trees in Uganda in providing benefits such as energy, food, employment, and income, less attention has been given to providing adequate finance to the forest sector.

Information about public and private investments in the forest sector are scattered and incomplete, making it impossible to provide evidence-based figures on the levels of investment. From 1990 to 2025, Uganda's forest cover declined at a rate of 122,000 hectares (2%) per annum (NFA, 2018). The drivers of deforestation include unsustainable fuelwood extraction, unsustainable harvesting of timber for construction; conversion of forest land into agriculture, human settlement into forest land, urbanization and wildfires (FAO, 2020). Other drivers include: population growth, poverty and dependence on forests for livelihoods, management constraints, firewood extraction, urbanisation, infrastructure development and unsustainable extraction of wood forest products (Twongyirwe et al., 2018, MWE, 2018). Despite these threats, there has been a slight recovery in Uganda's forest cover from 9% in 2015 to 12.4% in 2021 and 13.3% in 2023. This increase has been attributed to increasing awareness, involvement of the private sector and deployment of some financing options that have largely supported forest plantation establishment on both privately-owned land and selected central forested reserves.

Uganda has put in place an institutional framework to promote forest conservation and sustainable forest management. The country is a party and a signatory to a number of international conventions, treaties, protocols and global aspirations, including the Rio Declaration on environment and development, the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention on Biological Diversity (UNCBD), the United Nations Convention to Combat Desertification (UNCCD), the United Nations Forum on Forests (UNFF), the Convention on International Trade in Endangered Species (CITES), AFR-100, the Bonn Challenge, the Rio+20 Declaration and the East African Community Protocol on Environment and Natural Resources, among others. The commitments in these frameworks have been integrated in national policies, statutory laws and regulations. Uganda has made good progress in domesticating these international frameworks.

There is relatively very good civic engagement in the forestry sector, mainly because the Uganda forestry policy provides for stakeholder engagement. The notable networks in the sector include the Uganda Forestry Working Group (UFWG) and the Environment and Natural Resources Sector Working Group (ENRSWG), which has now evolved into the Environment, Natural Resource and Climate Change Sub Programme Working Group for harmonizing and coordinating forest management policies. Uganda is implementing the Uganda Forestry Policy 2001 (now under review), whose goal is to establish "an integrated forest sector that achieves sustainable increases in the economic, social and environmental benefits from forests and trees by all the people of Uganda, especially the poor and vulnerable." Under Uganda's Vision 2040, the government committed to restore the forest cover from 9% in 2015 to 24% by 2040; and through the Bonn challenge the Government of Uganda pledged to restore 2.5 million hectares of degraded forest landscapes by 2030. Uganda is making some progress in restoration of forest cover, however investments seem to be below what would be required to achieve the 24% target by 2040. Uganda's Nationally Determined Contribution (NDC) to UNFCCC aims to reduce greenhouse gas emissions by 22% by 2030. Most of the mitigation priorities in the NDC were derived from the REDD+ Strategy and Action Plan, whose overarching purpose is to reduce emissions from deforestation and forest degradation hence providing for conservation and sustainable management of forests. The adaptation component of Uganda's updated NDC covers 13 sectors, including agriculture, forestry, energy and ecosystems, among others. The mitigation component highlights that Uganda's emissions profile is projected to increase from 90.1 MtCO2e in 2015 to 148.8 MtCO2e in 2030 and 235.7 MtCO2e by 2050 under the Business-As-Usual scenario. The total cost of implementing adaptation, mitigation, coordination, monitoring, and reporting of Uganda's updated NDC is estimated at USD28.1 billion. Uganda commits to mobilize domestic resources to cover the unconditional actions amounting to USD4.1 billion, equivalent to 15% of the total cost of the updated NDC, and will require international support of about USD24 billion to cover the conditional measures and actions.

Uganda has the National Forestry and Tree Planting Act 2003, which provides secure tree and forest rights to individuals, and a tree fund which is yet to be operationalized. Under the draft new Forest Policy, the Government of Uganda proposes to develop robust and effective financial mechanisms that will attract financing into the forestry sector, including instruments for long-term, innovative and sustainable forestry

financing. This will be capitalized through the Tree Fund, the Emissions Reduction Fund as a commitment to REDD+, and the national PES scheme through levies. The Tree Fund has not been operationalized, though it is provided for in the National Forestry and Tree Planting Act of 2003. Additionally, under the Environment Act 2019, all the funds could be managed under one umbrella of the National Environment Fund as proposed in the 10-year Environment and Natural Resources restoration action plan passed by Cabinet in 2022. The Ministry of Finance has been averse to the creation of new funds, but within the National Environment Fund, many portals are envisaged. The government of Uganda also intends to develop a system of financial and other incentives for responsible management of all types of forests and addition of value along the forest products and services value chains, and to promote public-private partnerships for responsible forest management. These are measures that have been proposed in the draft policy, which is currently in the last stages of the policy cycle in Uganda.

Objective of the forest finance assessment

The EU intends to boost financing for forests in partner countries through technical assistance for the implementation of selected forest finance solutions. Prior to providing such support, an assessment was carried out to help define which forest finance solutions will be tested and piloted in selected countries (Action 'Financing for Forest'). As part of this effort, and to develop and implement a suitable methodology, the Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF) conducted a study on forest finance mechanisms in Uganda over the period July-October 2024 under contract from the Forests for Future Facility (F4F), an advisory facility to the EU on matters regarding (sustainable) forest management and use, conservation, and protection, and forest-based value chains and investments.

The objective of the assessment is to contribute to leveraging financing for forests and ensure forest finance solutions are geared towards meeting the sustainability of the forest sector in partner countries as well as the Paris Agreement and the Global Biodiversity Framework goals. The outcomes of the assessment are: (i) in-depth understanding of available and applied examples of forest finance instruments that are supporting international climate and biodiversity commitments gained; (ii) a common understanding among key national forest and finance stakeholders on priority forest finance instruments developed; and (iii) a short list of forest finance solutions which may benefit from tailor-made support for their operationalization and/or upscaling identified.

Stakeholder interview process

The assessment started with identification of potential stakeholders to be consulted. The Consultant provided an initial list of potential stakeholders and this was improved by the EU Delegation team. A letter of introduction was provided by the EU Delegation in Uganda which enabled the national consultant to contact stakeholders. Stakeholders interviewed represented government officials, academia, financial institutions, NGOs, and other key stakeholders involved in the forest finance ecosystem. A list of stakeholders consulted is provided in Annex 1. Literature review was also undertaken to gather information from published reports, academic papers, government documents, and relevant NGO publications. These processes resulted into selecting a long list of seven forest finance instruments/solutions that were further assessed to identify the priority three solutions.

1.3 Findings

National forest policy and management needs

Stakeholders interviewed during the assessment reported Uganda's current forest policy and management needs to include: restoration of degraded natural forests in protected areas and in private lands, forest product processing and value addition, development of commercial forest plantations, forest governance and law enforcement, promotion of tree growing on-farms/agroforestry, promotion of urban forestry, forest biodiversity conservation, and forestry extension. After ranking, the top priority needs for forest financing include: restoration of degraded forests, forest products processing and value addition, and tree growing on farms/agroforestry. These were ranked high since they require critical support for restoration of forest cover from the current 13.3% to the desired 24% by 2040.

Restoration of degraded natural forests in forest reserves and privately-owned land was highly prioritized, because most of these are experiencing degradation, yet provide unique ecosystem services that sustain the livelihoods of local people and the economy. Forest products (mostly wood) processing was ranked highly in terms of priority because this can potentially have a higher multiplier effect on the economy in terms of jobs and livelihoods. It was also ranked highly because there is a relatively high number of farmers whose trees have matured yet don't have resources or capital for processing and value addition. Tree growing on farms was reported to involve the wider farming community in all parts of Uganda to engage in forest cover restoration for livelihood support and resilience in the face of climate change.

Forest finance instruments/solutions in Uganda

1. ***Fiscal reforms/climate change budget tagging***

   These instruments focus on the adjustment of fiscal policies and budgeting processes to reflect environmental sustainability goals, often incorporating the valuation of natural resources and ecosystems into financial planning. Uganda has adopted the practice of Climate Change Budget Tagging (CCBT). This enables the Government of Uganda to identify, classify, track and report climate change responsive appropriations in its national budget. This is currently compulsory for all ministries, agencies and departments (MDAs). Most MDAs are including tree growing and enforcing forest conservation laws as climate change mitigation actions. Under the CCBT arrangement, the Ministry of Water and Environment produces a compliance report every year, and if any institutional budget is found lacking on this front, such budgets will not be approved. This is currently happening with government MDAs but will be rolled out to all entities, including the private sector, making it mandatory for them to offset their carbon footprint.

   The Global Green Growth Institute (GGGI) operates in Uganda under the Ministry of Finance, Planning and Economic Development and collaborates with government and other non-state actors. GGGI, through the Spear-CF project, is working towards addressing the financing gap hindering climate action initiatives in Uganda. Its primary aim is to improve the accessibility and retention of climate finance within Uganda by tackling key challenges posed by climate change. The project aims to achieve progress in enhancing Uganda's capacity for climate action through four targeted outcome areas, namely: introduction of a National Green Taxonomy linked to CCBT, issuance of Uganda's inaugural Sovereign Green Bond, access to international carbon markets, and acceleration of climate finance flows to Uganda through the Climate Finance Unit (CFU).

2. ***Subsidy schemes***

   The Sawlog Production Grant Scheme (SPGS) and the Farm Income Enhancement and Forest Conservation Project (FIEFOC) are two recent examples of incentives or subsidy schemes for forest financing. The two interventions have been created to increase tree cover in some parts of Uganda. The Sawlog Production Grant Scheme (SPGS) was initiated with the aim of establishing commercial timber plantations, to provide relief to the country's rapidly diminishing tropical moist forests and boost timber production to meet the demand for timber.

   The scheme began with a provision of EUR1,920,000 in the first phase, while the second phase entailed EUR10 million from the European Union and EUR6 million from the Norwegian Government. It was designed to provide grants to meet about 50% of the cost of establishing and maintaining sawlog plantations. Phase Three (EUR16 million from European Union) was geared towards increasing the incomes of rural populations through commercial tree planting by medium and large-scale private sector actors and the local communities, while helping to mitigate climate change impacts through intensive afforestation. In this phase, about 32,000 hectares of commercial timber and bio-energy plantations were established.

3. ***Carbon markets***

   These are financial markets and instruments aimed at reducing greenhouse gas emissions through the trading of carbon credits, where one credit represents the right to emit a specific amount of carbon dioxide or the equivalent

amount of a different greenhouse gas. These have been implemented in Uganda in both protected and outside protected areas although still at a small scale. Most forest carbon projects are in the voluntary market, with a few in compliance markets. The Nile Basin Clean Development Mechanism Project implemented by NFA is one of the biggest carbon projects in the compliance market led by a government agency. The Uganda Wildlife Authority (UWA) is currently implementing a carbon project in Kibale National Park in partnership with 'Face the Future' (domiciled in the Netherlands), and the credits are sold in the voluntary market. The project involves reforestation of degraded landscapes in Kibale National Park in Western Uganda, and has so far restored up to 6,500ha.

4. Payments for Ecosystem Services (PES)

This refers to financial and/or non-financial incentives provided to landowners or communities for managing their land in ways that preserve or enhance ecosystem services, such as water filtration and biodiversity. Here, we focus on PES rather than carbon sequestration. Payments for forest ecosystem services can potentially raise new funding for forest conservation, especially from the private sector (Wunder & Wertz-Kanounnikoff, 2009). PES is a voluntary transaction between service users and service providers, conditional on agreed rules of natural resource management for generating off-site services (Winder, 2015). The 'transactions' involve a payment (in cash or in-kind) based on verified evidence of the service provision (Kemigisha et al. 2023). The four types of ecosystem services commonly traded include carbon, water, scenic beauty, and biodiversity. Uganda is implementing ecotourism, especially in forest reserves and national parks. Gorilla tracking in the Bwindi and Mgahinga national parks is the largest source of tourism revenue for UWA. It is based on the willingness of tourists to pay to track mountain gorillas in these two parks. Forest conservation is financed through piggybacking on gorilla tracking.

5. Biodiversity offsets

Biodiversity offsets are measurable conservation outcomes designed to compensate for adverse and unavoidable impacts of projects, in addition to prevention and mitigation measures already implemented (Gardner et al. 2013). The aim of offsets is to achieve no net loss and preferably a net gain of biodiversity when large infrastructure projects are implemented (BBOP, 2009). In the case of Uganda, the bulk of the biodiversity offset funds from infrastructure development projects have been paid to conservation agencies such as NFA and UWA for restoring selected conservation areas.

6. National forest funds/conservation trust funds

These are dedicated funds established by governments or organizations to support forest conservation, sustainable management and the development of forest areas through grants, incentives or loans. Uganda's National Forest and Tree Planting Act 2001 provides for the creation of the National Tree Fund (section 40), but this has not been operationalized. However, the Government of Uganda provides annual budgetary allocations to NFA to support community tree growing. The National Environment Act 2019 provides for the Environment Fund (section 32), which is also yet to be operationalized. It is envisaged that once operationalized, a proportion will be channelled to local governments and NEMA to implement activities critical for environmental sustainability.

7. Impact finance/blended finance

These are investments made with the intention to generate positive environmental and social impacts alongside a financial return, using strategies like fund setup, blended finance to mix different forms of private and public capital, and de-risking to reduce financial risk for investors. The Environmental Conservation Trust of Uganda (ECOTRUST) has implemented a conservation impact finance mechanism that delivers USD6 of every USD 10 to smallholder conservation farmers through a blended model that combines public (donor) finance, Foreign Direct Investment (FDI), and community contributions, to support long-term biodiversity and climate change outcomes at the local level. ECOTRUST has developed this model over 17 years of implementing its Trees for Global Benefit (TGB) programme (Byakagaba et al, 2021).

8. Financial solutions from the Ugandan finance sector

The banking sector in Uganda has innovated some finance solutions that could be of relevance to the forest sector, but there is so far no clear evidence of their direct support to forestry. These include the Climate Finance Facility (CFF) and Agricultural Credit Facility (ACF). As part of aligning the financial sector in Uganda with policies and practices that support Uganda's green growth strategy, the Uganda Development Bank (UDB) has put in place the Climate Finance Facility (CFF), and the Bank of Uganda established the Agricultural Credit Facility (ACF). CFF is geared towards supporting Uganda to realize its greenhouse gas emission reduction targets of 24.7% by 2030. The Climate Finance Facility (CFF) is a green financing vehicle specifically created to mobilize capital from both domestic and external sources, targeting both private and public entities. The resources mobilized will be directed towards low carbon and climate resilient investments. The facility provides opportunities along value and supply chains to combat climate change impacts through evidence-based and innovative climate smart technologies. Target initiatives include: climate-smart agriculture, low carbon industry, climate resilient infrastructure, ecotourism, clean energy and sustainable waste management. This facility, however, has not significantly attracted investors in forestry: so far, only one company has accessed this finance solution for forestry. UDB has so far committed UGX50 billion towards capitalization of the facility, and this is expected to grow with support from various partners over time. UDB will source grants to blend with debt to reduce the risks associated with high start-up capital, high transaction costs and long maturity periods of green investments. The bank's green financial products include:

a. **Green loans** for green projects of 4-15 years, inclusive of a three-year grace period
b. **Green equity financing** to develop sustainable markets for green products and services where UDB shall hold equity for a period of at least 10 years and provide leverage to attract co-investments
c. **Green asset financing** that allows green investments to access efficient machinery in terms of resource use without having to purchase the equipment upfront. This will be for four to eight years, inclusive of a three-year grace period depending on useable life.
d. **Green trade financing** for purchase of certified raw materials to produce green finance products, such as climate friendly packaging materials, production of biomass substitutes, etc. This will be revolving in nature, with repayment cycles up to 120 days
e. **Credit guarantees** to unlock green investments that suffer constraints of lack of collateral, high credit risk, and high start-up costs
f. **Grants** to allow developers acquire efficient technology to grow and scale up their activities. This will contain some amount of concessional finance which will be blended with market-based finance. For sustainability of the interventions, the grants can be attached to debt and payments made in several agreed instalments during the duration of the loan period.

Uganda's **Agricultural Credit Facility (ACF)** has provided medium to long-term financing for the agricultural sector. ACF was set up by the Government of Uganda in partnership with commercial banks, the Uganda Development Bank (UDB), Micro Deposit Taking Institutions (MDIs) and credit institutions, all of which are referred to as Participating Financial Institutions (PFIs). The Scheme started in October 2009, with the aim of facilitating the provision of medium and long-term financing to projects engaged in agriculture and agro-processing, focusing mainly on commercialization and value addition. The scheme operates on a refinance basis, where PFIs disburse the loan amount required by the client and seek re-imbursement from BoU. Most activities along the agricultural value chain, e.g. acquisition of agricultural machinery and equipment, post-harvest handling equipment, storage facilities, agricultural inputs, irrigation facilities, agro-processing activities, etc., are eligible under ACF. However, ACF does not finance the purchase of land or the planting of trees, or refinancing existing facilities.

The loans are for a period of eight years with a grace period of up to three years. The interest rate for the final borrower is capped at a maximum of 12% per annum. The 50% GoU contribution is disbursed to the PFIs at zero interest, and facility fees charged do not exceed 0.5% of the total loan amount. The Bank

of Uganda (BoU) is the ACF administrator. Cumulatively, the Government contribution from 2010 to June 2024 is UGX495.6 billion, and PFIs have contributed UGX485.4 billion, totaling UGX981.0 billion (BoU, 2024). The block allocation model enhances financial inclusion, which has enabled 2,767 rural farmers (62% of the beneficiaries) to access financing, despite lacking traditional collateral (e.g., machinery, equipment or land). The scheme boasts a good repayment rate with a non-performing loan ration of only 1.2%. This makes ACF a good risk-sharing facility capable of transforming the agricultural sector. Through interactions with stakeholders, however, we can conclude that this financing solution has not so far benefited the forestry sector. It has been suggested that a special product could be designed to support investments in forest products processing and value addition.

New and emerging financial instruments

New and emerging financial instruments in Uganda for mobilizing additional sources of finance in support of the forestry sector include green bonds, debt-for-nature schemes, bio-credits and oil-for-nature agreements. Guidelines for green bonds are still being developed. The Government of Uganda hopes that these will offer an opportunity to generate funding for forestry activities at national and sub-national levels. The Ministry of Finance, Planning and Economic Development is currently developing frameworks to foster implementation of these emerging instruments. The Government of Uganda hopes to mobilize multiple international, national and local sources of finance to support sustainable forest management for both government and non-state actors. Clear public budget allocations are envisioned to support the effective functioning of the forestry sector, because forests provide environmental goods and services that are critical for other sectors such as agriculture, industry and energy. It is also expected that a significant level of forest investment finance will come from non-state entities. Some of the instruments being planned include:

- Operationalisation of the 'Tree Fund' based on internally generated and retained forestry revenues
- Creation of an 'Emissions Reduction Fund' as part of Uganda's international commitments to REDD+
- Establishment of a national PES scheme through a levy on sub-sectors that relate to forests such as water, hydroelectricity and petroleum, with a view to reinvesting into reforestation and forest protection
- Creation of a special credit facility for forest development, including mobilization of local development and commercial banks to create a special investment vehicle to provide long-term, affordable, patient capital for forestry development
- Deforestation-free agricultural production, as part of Uganda's quest to attain land degradation neutrality.

2 PART 2

ASSESSMENT OF FOREST FINANCE SOLUTIONS IN UGANDA

2.1 Executive summary – Step 2

This assessment of the effectiveness and potential of the identified forest finance solutions in Uganda was based on seven criteria, including: Financial potential, contribution to value chains development, contribution to biodiversity goals, contribution to climate goals, and other environmental and social considerations, including for IPLC. Through this assessment, two forest finance solutions (green budgeting and impact finance/blended finance) were dropped. While green budgeting could have high financial potential and contribute significantly to climate goals and other environmental considerations, it generally contributes little to value chain development, biodiversity and social considerations. Impact finance/blended finance, meanwhile, tends to involve minimal social considerations. Most impact/blended finance solutions operating in Uganda pay little attention to forest-related investments because they were set up with bias towards agricultural value chains, though forestry is mentioned as one of the potential investments. The five forest financing solutions in Uganda that demonstrate both potential and limitations in terms of financial viability, environmental and social sustainability, as well as contributions to biodiversity and climate goals, include: (i) National forest funds/conservation trust funds, (ii) biodiversity offsets, (iii) carbon markets, (iv) subsidy schemes and (v) PES. These forest finance solutions will be prioritized in Part Three of this report.

2.2 Assessment of forest finance solutions

The objective of the assessment was to evaluate the effectiveness and potential of each of the identified forest finance solutions in Uganda (Part One of the report) in relation to financial viability, environmental and social sustainability and its potential contribution to biodiversity and climate goals (Table 1). In addition, the prerequisites enabling environment, regulatory framework and capacities needed for the solutions were considered. The seven forest finance solutions identified in Uganda were: green budgeting, subsidy schemes, carbon markets, PES, biodiversity offsets, national forest funds/conservation trust funds, and impact finance/blended finance/de-risking.

1. ***Climate Change Budget Tagging (CCBT)***
   Uganda's Climate Change Budget Tagging (CCBT) will deliberately budget and track climate finance and produce a National State of Climate Finance Report. Among the variables tracked in CCBT is the provisions for green investments, including expenditure on forestry. Given that the budget is the government's central policy document, Uganda is looking at how the country can develop a budget that is more aligned with national green priorities, by better understanding financing gaps for achieving green objectives and finding ways to help prioritize investments with green benefits in decision making. It is expected that, with the advancement of climate mainstreaming, most mitigation and adaptation actions will proceed through projects with climate co-benefits, rather than investments that focus exclusively on generating climate benefits. CCBT has been implemented for past two financial years, and the responsible bodies (the Ministry of Finance, Planning and Economic Development and the Ministry of Water and Environment) are developing guidelines for MDAs to follow to ensure

consistency. It is likely that the guidelines will be informed by the actions in the NDC, in which forests are prioritized in both mitigation and adaptation.

CCBT has high financial potential, and will contribute to climate goals and other environmental considerations, but is low on value chains development and social considerations. The key enabling environment elements for CCBT include: the guidelines under preparation by the MFPED that will ensure that mitigation actions relating to trees and forests are included, the NDC that specifies climate actions that include forestry and trees, and the Climate Change Policy and Climate Change Act that support NDC implementation. These provide a basis for fiscal reforms that may promote forests and trees for climate mitigation and the Uganda Green Growth Development Strategy (GoU, 2018).

2. ***Subsidy schemes***

The Farm Income Enhancement and Forest Conservation Project (FIEFOC 1) was funded using a loan from the African Development Bank (AfBD) and some of the funds were used to restore 9,900 hectares of degraded watershed, protect 99,000 hectares of natural forests, and establish 13,500 hectares of plantations in 100 sub-counties across Uganda between 2006 and 2012. FIEFOC 2, which followed, had an objective of consolidating and expanding achievements of FIEFOC 1. Integrated natural resource management was one of the components of the project, and 4,293 hectares of forest cover was restored. The total cost of the project is USD91.43 million.

The Ministry of Water and Environment is currently implementing a project titled 'Investing in forests and protected areas for climate-smart development (IFPA-CD) (2020-2026)' with support from the World Bank. It is intended to improve the sustainable management of forests and protected areas and increase benefits to communities from forests in the target landscapes of the Albertine Rift, the refugee-hosting areas of West Nile Region, and Lamwo District. The total project value is USD178.2 million, with USD78.2 million being a concessional loan, USD70 million as a grant and USD30 million as the Government of

Table 1. Assessment considerations for the selected forest solutions in Uganda

Assessment criteria	Assessment considerations
Financial viability	• The amount of funding the solution has attracted (or can attract in the future) and its scalability (scale of investment), including the source – public or private and national or internationalThe long-term financial sustainability of the solution
Contribution to biodiversity goals	• Alignment with Global Biodiversity Framework (GBF) • Linkage with international biodiversity targets and Uganda's NBSAP.
Contribution to climate goals	• Alignment with the Paris Agreement • Linkage with global climate change mitigation/adaptation goals, as well as Uganda's NDC and NBSAP
Other environmental benefits	• Contribution to forest (ecosystem) restoration (area restored) • Contribution to soil restoration, prevention/control of soil erosion, and improvement of soil fertilityContribution to watershed management and the sustainability of aquatic ecosystems
Social impacts	• Contribution to social issues, including for gender and Indigenous Peoples and Local Communities (IPLC) groups • The degree to which gender and IPLC groups are included in the planning, execution, and benefit distribution of the solutionThe solution's impact on these groups' access to natural resources, land rights and economic opportunities • Job creation
Prerequisites: Enabling environment, regulatory framework and capacities needed	• The country-level political economic and social conditions that need to be in place for successful implementation of the solutionAlignment of the solution with national environmental policies and international commitmentsTechnical, institutional and managerial capacities necessary to implement and sustain the solutio

Uganda's contribution. It is expected attract an additional USD 30million from global climate funds as co-financing with a World Bank loan and grant. The project has three components and supports Uganda's agenda of increasing forest cover through afforestation and reforestation and slowing down the loss and degradation of forests. Component One (USD78.2 million) focuses on improving the management of government-managed forests and wildlife protection areas. Component Two seeks to increase revenues and jobs from forests and wildlife protection areas and includes a subsidy scheme for wood processing, plantation establishment and tourism development. Component Three supports the establishment of tree cover in refugee-hosting landscapes outside protected areas, as well as supporting sustainable forest management and landscape resilience on private and customary land. The project also responds to Uganda's objectives set out in its NDC under the UNFCC related to reversing the loss and degradation of forests and supporting their restoration.

Subsidy schemes in Uganda have contributed highly to all of the assessment criteria, with the highest contribution on value chain development. Their enabling environment elements include continued support from international financing institutions to Uganda as a developing country, and Uganda's status as a Party to the Paris Agreement on Climate Change, which enables the country to benefit from international climate finance support, such as the GCF and other initiatives geared towards climate mitigation that may involve forests and trees.

3. Carbon markets

Uganda is currently reviewing its draft carbon market guidelines, and developing carbon regulations and a fiscal framework. ECOTRUST's Trees for Global Benefits (TGB) is a long-running, cooperative carbon offsetting scheme that combines community-led activities to increase carbon sequestration, encouraging sustainable land-use practices, and providing farmers with performance-based payments. The aim of TGB is to produce long-term, verifiable voluntary emission reductions by combining carbon sequestration with livelihood improvements through small-scale, farmer-led forestry/ agroforestry projects, while at the same time reducing pressure on natural resources in national parks and forest reserves. It is currently implemented in 19 districts across the country: Rubirizi, Mitooma, Kasese, Hoima, Masindi, Kitagwenda, Kamwenge, Buhweju Mbale, Manafwa, Bududa, Bulambuli, Sironko, Namisindwa, Budaka, Butaleja, Kaliro, Kibuku and Namutumba. The programme has grown to involve 15,119 households and has paid out USD4.1 million to participants for 2.40 million tonnes CO2e of emission removals. The total area of land under TGB, including boundary planting, is 18140 hectares (ECOTRUST, 2022).

Uganda has a national reference scenario of emissions from deforestation and forest degradation, Measurement, Reporting and Verification mechanisms (MRV), National Forest Monitoring Systems (NFMS), a Strategic Environmental and Social Assessment (SESA), an Environmental and Social Management Framework (ESMF), and a Safeguards Information System (SIS) for REDD+. These were funded through grants from FCPF, the Norwegian Embassy in Uganda, Austrian Development Cooperation, the UN-REDD National Programme, and the Government of Uganda. Uganda has recently joined the Architecture for REDD+ Transaction (ART), which provides more assurance of the market for carbon credits under REDD+. These REDD+ readiness frameworks will enable implementation of REDD+ projects in the country.

In some cases, carbon credits are combined with value chain finance. This has been used by private forest investors such as The New Forests Company (NFC) and Global Woods. The NFC project area is 37,000 hectares, comprising afforestation, reforestation and revegetation, and improved forest management. The investment is financed with capital raised from institutional investors and development finance institutions (DFIs). The revenues will be generated from voluntary carbon markets with verified carbon standards, as well as (the ongoing) timber sales and wood processing. The Nile Fibreboard Ltd. (former Global Woods) project area is 12,200 hectares, comprising both tree planting and conservation. The investment is financed with the company's own capital as well as capital raised from institutional investors and DFIs.

Carbon revenues will be generated from voluntary carbon markets with Gold standard, as well as timber sales and wood processing. The company models are good examples of how private investments financed by institutional investors/ DFIs/local banks can contribute to restoration/ conservation of forests.

Carbon markets perform highly across the five assessment criteria but are low on value chain development. Enabling environmental elements for carbon markets in Uganda include the Climate Change Policy and Climate Change Act which provide a policy and legal framework for carbon trade in the country. The Carbon Mechanism Regulations are almost being operationalized, and these will enable Uganda to participate in emerging carbon markets.

4. ***Payments for Ecosystem Services (PES)***
A PES-led forest conservation trial was piloted from 2011 to 2013 in the Budongo-Bugoma area in Hoima and Kibale districts in Western Uganda, and then terminated. The programme aim was to conserve privately-owned natural forests (Jayachandran et al. 2016). The programme had two components: (i) reforestation of bare land, and (ii) conservation of forests threatened by conversion to agricultural farmland. The programme showed that PES results in less deforestation (Kemigisha et al. 2023).

WWF and Nile Breweries are currently restoring the River Rwizi catchment in Western Uganda to improve water quality and quantity and prevent flash floods during the wet season. The project aims to restore 600 hectares (WWF 2024).

PES schemes in Uganda seem likely to contribute greatly to biodiversity and climate goals, as well as to social considerations, but will contribute less to value chain development. Their financial potential is also likely to be low in the short-to-medium term, since they are not yet well-developed. The key enabling environment element for PES in Uganda is the National Environment Act (2019), which provides for biodiversity conservation and sustainable water catchments, thus providing legal support for bio-credits and water credits. However, the bio-credit standards are not yet available so the market is relatively small, and there are no water credit standards currently being implemented in Uganda, so opportunities are rather minimal. Private sector entities that rely on water, especially brewery companies, are however gaining interest in supporting restoration of water catchments.

5. ***Biodiversity offsets***
Biodiversity offsets are measurable conservation outcomes designed to compensate for adverse and unavoidable impacts of projects, in addition to prevention and mitigation measures already implemented (Gardner et al. 2013). The aim of offsets is to achieve No Net Loss (NNL) and preferably a Net Gain (NG) of biodiversity when large infrastructure projects are implemented (BBOP, 2009). Biodiversity offsetting was used in Gangu Central Forest Reserve in central Uganda, where 200 hectares were restored. The results revealed that biodiversity offsetting led to a 21% increase in Gangu forest cover, and enhanced restoration of forest species composition and diversity (Kigonya et al 2024). This was used as offset during the establishment of the Kawanda-Masaka electricity transmission line. It was implemented by the National Forest Authority (NFA) in collaboration with the Uganda Electricity Telecommunication Company Limited (UETCL) to restore 20 hectares of degraded forest area, using part of the loan from the World Bank. The financing of this offset was from the budget of the project to establish the Kawanda-Masaka electricity transmission line.

Other biodiversity offsets were implemented during the construction of the Bujagali hydro-electricity dam in central Uganda, with offsets in Kalagala in Mabira Central Forest Reserve and also under the Grid Expansion Reinforcement Project (GERP) in northern Uganda, where 1,000 hectares of central and local forest reserves were restored using 10% of the total loan value (USD100 million) from the World Bank. It's important to note that Uganda now has provisions for biodiversity offset implementation in the National Environment Act 2019. Considering that the guidelines for biodiversity offsets have been developed to enable their operationalization, it will now be possible to implement biodiversity offsets in most development projects. They are therefore bound to be a great source of finance for forest ecosystem restoration in Uganda.

Biodiversity offsets contribute greatly to the five assessment criteria, but their contribution to value development is moderate, since they have largely been directed towards restoration. Their implementation is supported by the National Environment Act (2019), which provides for biodiversity offsets in Section 115. Additionally, guidelines for biodiversity offsets have been developed under the Ministry of Water and Environment. The metrics guidance document for biodiversity offsets is currently under development with the support of the World Conservation Society (WCS).

6. ***National forest funds/conservation trust funds***

The Wildlife Act 2019 provides for a wildlife fund (Section 64) which is also yet to be operationalized. There are several conservation trust funds in Uganda, e.g., Bwindi Mgahinga Conservation Trust (BMCT), The Environmental Conservation Trust of Uganda (ECOTRUST), the Chimpanzee Sanctuary, and the Wildlife Conservation Trust (CSWCT) and Uganda Biodiversity Fund (UBF). ECOTRUST operates in three main landscapes in the country: the Murchison-Semliki landscape in the Albertine Region, the Queen Elizabeth National Park landscape, and Mount Elgon Landscape in Eastern Uganda. I key purpose is restoration, conservation and management of critical ecosystems in support of the conservation of biodiversity.

UBF is serving as a catalyst for mobilizing, managing and channelling financial resources for biodiversity conservation and sustainable use of natural resources in Uganda. The fund has so far received funding from USAID and the EU. The USAID funding has supported several community projects focused on biodiversity conservation and restoration of degraded habitants. Some projects have also integrated climate resilience. The EU-funded project focuses on restoring and conserving degraded and fragile ecosystems (forests, wetlands and woodlands) for improved livelihoods among refugee and host communities.

BMCT operates in southwestern Uganda and supports local communities living near Bwindi Impenetrable National Park and Mgahinga Gorilla National Park. This support is conditioned on maintaining forest cover, protecting gorilla habitats and supporting sustainable tourism activities. In 2022/2023, BMCT secured UGX2.1 billion, generated mainly from the Endowment Fund and grants. BMCT runs tree nurseries and implemented the Bwindi Trust Tree Champion project to support communities in planting trees.

National forest funds contribute highly to all the six assessment criteria. Their key enabling environment elements include: the National Forestry and Tree Planting Act 2003 with its provision for a Tree Fund; the National Environment Act 2019, which provides for Environment Fund; and the Wildlife Act 2019, which provides for a wildlife fund. However, none of these funds have so far been operationalized due to the narrow fiscal space.

7. ***Impact finance/blended finance***

The TerraFund applies the impact investment principle and provides seed capital in the form of grants and loans. The fund has been used under AFR-100 to invest in Africa's land restoration enterprises and projects. Some donors have so far capitalized TerraFund to finance the top 100 African non-profit community organizations and for-profit businesses that are restoring trees in African landscapes. Funding provided ranges from USD50,000 to USD500,000 in the form of grants and loans. The restoration innovators employ a wide range of tree-based restoration options, including agroforestry and assisted natural regeneration. TerraFund has so far supported about 10 restoration projects in Uganda, including: Bulindi Chimpanzee and Community Project (929 hectares), Environmental Conservation Trust of Uganda (3,000 hectares), Kijani Forestry (200 hectares), Kikandwa Environmental Association (300 hectares), Nsamizi Training Institute for Social Development (200 hectares), People and Nature Rwenzori Mountains (178 heectarees), Solidaridad (1,000 hectares), Support for Women in Agriculture and Environment (200 hectares), Tree Adoption Uganda (81 hectares) and Divine Bamboo (19 hectares).

Impact Finance can contribute highly to value chain development and climate goals but scores low on social considerations. It has high financial potential and can easily be sustained as a forest finance solution compared to other finance options. The key enabling environment element for

impact finance in Uganda is the National Climate Change Mainstreaming Guidelines, which provide impetus for financial institutions to support climate actions, which may include forests. The Uganda Development Bank (UDB) has a Climate Finance Facility that can be used to finance climate actions, including forest-based enterprises. The Bank of Uganda (BoU) has also provided guidelines for commercial banks to promote climate action-relevant financing, in which forest-based enterprises can be considered. Though these last two elements could provide an enabling environment, they do need to be adjusted to suit forest financing needs in Uganda.

2.3 Summary assessment of the forest finance solutions

A summary of the forest solutions assessment is presented in Table 2. The assessment dropped Green Budgeting (CCBT) and Impact Finance/Blended Finance and retained five solutions for prioritization in Stage Three. Table 3 presents a summary of the key enabling environment elements for the forest finance solution. Green finance: While this could have a high financial potential and contribute significantly to climate goals and other environmental considerations, it generally has low contribution to value chain development, biodiversity and social considerations. This is because there is currently no evidence in Uganda that it is directly contributing to value chain development, biodiversity or social considerations. There is an opportunity for the Ministry of Finance, Planning and Economic Development and the Climate Change Department to consider integrating these in the CCBT guidelines.

Impact finance/blended finance: This entails minimal social considerations. With the exception of Trees for Global Benefit (TGB) implemented by ECOTRUST, all the other impact/blended finance solutions operating in Uganda, such as the Climate Finance Facility (CFF) and the Agricultural Credit Facility (ACF), pay little attention to forest-related investments because they were set up with bias towards agricultural value chains, though forestry is mentioned in some sections. They generally make low contributions to social considerations given their nature. Impact/blended finance has high financial potential and could support value chain development, including in forestry. Financial institutions will however need to include Environmental, Social and Governance (ESG) consideration to promote social sustainability.

Table 2. Summary assessment of forest finance solutions

Forest Finance solution	Financial potential	Value chains development contribution	Contribution to biodiversity goals	Contribution to climate goals	Other environmental considerations	Social considerations, including for IPLC groups
1. Climate Change Budget Tagging	very high	low	medium	very high	high	low
2. Subsidy schemes	Medium	very high	high	high	high	high
3. Carbon Markets	very high	low	very high	very high	high	high
4. PES	Medium	low	very high	high	high	high
5. Biodiversity offsets	Medium	medium	very high	very high	very high	high
6. National Forest Funds/ Conservation Trust Fundus	very high	very high	very high	very high	high	high
7. Impact Finance/ Blended Finance	High	very high	medium	high	medium	Low

Table 3. A summary of key enabling environment elements for the forest finance solutions

Forest finance solution	Key enabling environment elements
Fiscal reforms	• The Guidelines from MFPED on CCBT are under preparation and will ensure that mitigation actions such trees and forests are included • The NDC (MWE, 2022) which specifies climate actions that include forestry and trees, Climate Change Policy and Climate Change Act that support NDC implementation provide a basis for fiscal reforms that may promote forests and trees for climate mitigationThe Uganda Green Growth Development Strategy (GoU, 2018)
Subsidy schemes	• Uganda qualifies for support from international financing institutions as a developing country and some of it may be used to subsidize forestry • Uganda is a Party to the Paris Agreement on Climate Change and thus can benefit from international climate Finance support such as GCF and any other initiative geared towards climate mitigation that may involve forests and trees
Carbon markets	• The Climate Change Policy and Climate Change Act provide a policy and legal framework for carbon trade • Carbon mechanism regulations are almost operational, and this will enable Uganda to participate in emerging carbon markets
PES	• The National Environment Act (2019) provides for biodiversity conservation and sustainable water catchments, thus providing legal support for bio-credits and water credits • Bio-credit standards are not yet available and thus the market is relatively small • There are no water credit standards being implemented in Uganda, thus opportunities are minimal • Private sector entities that rely on water, especially brewery companies, are gaining interest in supporting restoration of water catchments
Biodiversity offsets	• National Environment Act (2019) – provides for biodiversity offsets in Section 115 • The guidelines for biodiversity offsets have been developed under the Ministry of Water and Environment • The metrics guidance document for biodiversity offsets is under development with the support of WCS
National forest funds/ conservation trust funds	• The National Forestry and Tree Planting Act 2003 has a provision for a Tree Fund (section 40) • The National Environment Act 2019 provides for an Environment Fund (section 32) • The Wildlife Act 2019 (Section 64) provides for a wildlife fund • None of these funds have so far been operationalized due to the narrow fiscal space
Impact finance/ Blended finance	• The National Climate Change Mainstreaming Guidelines provide impetus for financial institutions to support climate actions which may include forests • UDB has a Climate Finance Facility that can be used to finance climate actions, including forest-based enterprises • BoU has provided guidelines for commercial banks to promote climate action-relevant financing, in which forest-based enterprises can be considered

3 PART 3

PRIORITIZATION OF FOREST FINANCE SOLUTIONS IN UGANDA

3.1 Executive summary – Step 3

Based on the scoring and ranking, the priority forest finance solutions for Uganda are: Carbon markets, PES, national forest funds/conservation trust funds, biodiversity offsets, and subsidy schemes. Carbon markets can leverage significant amounts of private money. There can also be cases where companies combine production forestry and restoration, the latter benefitting from carbon markets. Just like carbon markets, PES, once well-developed in Uganda, will make significant financial contributions. Though some national forest funds/conservation trust funds have performed well in Uganda, their drawback is the failure to operationalize those established in statutory laws by the government, making these funds unreliable as a forest financing solution. Biodiversity offsets also have some successful examples in Uganda, however the government is reluctant to provide for biodiversity offsets in development projects based on loans, and only considers them where it is a requirement by the funding agency. While subsidy schemes have had some impact as a forest finance solution in Uganda, their availability has mainly depended on external financing which may not always be readily available.

3.2 Scoring and ranking of forest finance solutions

The five forest finance solutions (from Part 2: National forest funds/conservation trust funds, biodiversity offsets, carbon markets, subsidy schemes and PES) were subjected to rating/scoring against the five assessment criteria. The rating was done using a Likert scale of 1-5 (1. Very likely; 2. Likely; 3. Moderately likely; 4. Fairly likely and 5. Unlikely). The results of the assessment are presented in Table 4.

Table 4. Scores and ranks of selected forest finance solutions

Forest finance solution/scoring criteria	Financial viability	Biodiversity benefits	Contribution to climate goals	Feasibility and risk	Environment and social sustainability	Total rating	Mean rating	Rank
National forest funds/ conservation trust funds	3	2	2	1	1	9	1.8	3
Biodiversity offsets	4	1	1	2	2	10	2.0	4
Carbon markets	1	2	1	2	2	8	1.6	1
Subsidy schemes	3	2	2	2	2	11	2.2	5
PES	1	2	2	2	2	9	1.6	1

3.3 Presentation of scoring results

Carbon markets: These scored very high to high on all the assessment criteria. During the stakeholder validation meeting, it was noted that carbon markets can leverage significant amounts of private money. There can also be cases where companies combine production forestry and restoration, the latter benefitting from carbon markets. The carbon profile market for Uganda indicates that the country is one of the carbon market frontrunners in Africa, with a total of over 33 million carbon credits issued from the Clean Development Mechanism (CDM) and Voluntary Carbon Market (VCM) standards. Overall, Uganda has a CDM portfolio with a total of 189 registered activities, which include 19 project activities and nine programmes of activities with a total of 170 Carbon Purchase Agreements (CPAs). The country also has 101 VCM activities that are contributing to most of the carbon credits issued. However, the VCM activities are dominated by energy efficiency activities. It is hoped that the number of forestry activities will increase in the near future.

Payment for Ecosystem Services (PES): This also scored very high to high across all of the final assessment criteria. Just like carbon markets, it was observed during the stakeholder validation meeting that PES, once well-developed in Uganda, will make significant financial contributions. PES is currently in an emerging phase in the country, with ongoing efforts to expand its implementation across various environmental sectors. PES is particularly relevant in Uganda given its rich biodiversity and significant environmental challenges, including deforestation, land degradation and loss of wetland ecosystems. Uganda is in the advanced stages of REDD+ implementation, which involves compensating landowners or communities for maintaining forest cover to sequester carbon. Uganda is also looking into PES in relation to watershed protection, especially in the catchments of major rivers and lakes, to ensure clean water supply and regulate flooding. Uganda's national parks and other protected areas, such as those in the Albertine Rift and Mt Elgon are potential sites for PES schemes aimed at maintaining biodiversity and encouraging local communities to engage in conservation efforts. PES therefore holds great potential for Uganda as a forest finance solution. A study testing the effectiveness of PES to enhance conservation in productive landscapes was recently undertaken, focusing on Kibaale and Hoima districts in Western Uganda. It aimed to test the ability of PES to enhance the conservation of biodiversity, specifically targeting productive landscapes. The results of this study will help government and other actors to develop a replication strategy in other areas at risk of deforestation. At the local level, PES has been shown to have the potential to generate significant additional and sustainable financing for biodiversity conservation and can change smallholder views on forest conservation as a livelihood opportunity.

National forest funds/conservation trust funds: This rated very high in two assessment criteria and likely in two criteria. One drawback in these funds is the failure to operationalize those established in statutory laws by the government due to Uganda's narrow fiscal space. The future of these funds is unclear and this makes them unreliable unless they are financed to enable their operationalization. The non-state funds such as Environmental Conservation Trust of Uganda (ECOTRUST) and Uganda Biodiversity Fund (UBF) are operational, albeit with challenges around sustainability. The stakeholder validation meeting lowered the financial sustainability of these funds to moderately likely.

Biodiversity offsets: Though this forest financing solution scored very high in two and high in two criteria, it rated poorly (fairly likely) on financial viability because it is dependent on projects that are required by law to implement it. It is the last option in the mitigation hierarchy, and thus may not be common. Biodiversity offsets have significant potential to contribute to climate goals and biodiversity benefits. It was reported that even the government is reluctant to provide for biodiversity offsets in development projects based on loans; they have only been implemented in projects where it is a requirement from the development partner, such as the World Bank.

Subsidy schemes: These scored high in four criteria but scored moderately likely in financial viability. While subsidy schemes have had considerable impact as a forest finance solution, their availability in the case of Uganda has mainly depended on external financing, which may not always be readily available. However, subsidy schemes can also be undertaken by the government, as has been the case under the National Agricultural Advisory Services (NAADS).

References

AGFCPF. (2012). 2012 study on forest financing. Advisory Group on Finance Collaborative Partnership on Forests. Available at: https://www.un.org/esa/forests/wp-content/uploads/2014/12/AGF_Study_July_2012.pdf

BoU. (2024). Agricultural Credit Facility (ACF). Bank of Uganda, Kampala

Byakagaba P., Nantongo, P.K., and Kalibwani, F. (2021). Finance for integrated landscape management. De-risking smallholder farmer investments in integrated landscape management: ECOTRUST's Trees for Global Benefit (TGB) in Uganda. Environmental Conservation Trust of Uganda: Kampala, Uganda and Tropenbos International: Ede, the Netherlands

Conservation Finance Alliance. (2014). Practice Standards for Conservation Trust Funds. Prepared by Barry Spergel and Kathy Mikitin

EcoTrust. (2022). Trees for Global Benefits Program in Uganda: 2021 Plan Vivo Annual Report, *The Environmental Conservation Trust of Uganda*, Kampala

Enters, T., Durst, P., & Brown, C. (2003). What does it take? The role of incentives in forest plantation development in the Asia-Pacific region. *Unasylva*, 54, 11-18FAO. (2020). Global Forest Assessment Report, Uganda. Available at : https://openknowledge.fao.org/server/api/core/bitstreams/94edd63a-3ac8-4529-955d-ffea1012e589/content

Forests for the Future Facility (F4F). (2024). Table with Forest Finance instruments and examples in Uganda

Gardner, T. A., Von Hase, A., Brownlie, S., Ekstrom, J. M., Pilgrim, J. D., Savy, C. E., ... & Ten Kate, K. (2013). Biodiversity offsets and the challenge of achieving no net loss. *Conservation biology*, 27(6), 1254-1264

Gardner, T. A., Von Hase, A., Brownlie, S., Ekstrom, J. M., Pilgrim, J. D., Savy, C. E., ... & Ten Kate, K. (2013). Biodiversity offsets and the challenge of achieving no net loss. *Conservation biology*, 27(6), 1254-1264GoU. (2001). The Uganda Forestry Policy. Ministry of Water and Environment (MWE), Kampala

Jayachandran, S., De Laat, J., Lambin, E. F., & Stanton, C. Y. (2016). *Cash for carbon: a randomized controlled trial of payments for ecosystem services to reduce deforestation* (No. w22378). National Bureau of Economic Research

Kemigisha, E., Babweteera, F., Mugisha, J., & Angelsen, A. (2023). Payment for environmental services to reduce deforestation: Do the positive effects last? *Ecological economics*, 209, 107840.

Kigonya R., Byakagaba P., Edward Ssenyonjo E and Jjunju N.C. (2024). "Biodiversity Offsetting" in Uganda's Protected Areas: A Pathway to Restoration of Forest Biodiversity? *Environmental Management*, 73, 1134–1149.

Li, Y., Mei, B., & Linhares-Juvenal, T. (2019). The economic contribution of the world's forest sector. *Forest Policy and Economics,* 100, 236-253

Li, Y., Mei, B., Linhares-Juvenal, T. & Formenton Cardoso, N. (2022). *Forest sector contributions to the national economies in 2015 – The direct, indirect and induced effects on value-added, employment and labour income.* Rome, FAO

Miller, C. and Jones, L. (2010). *Agricultural Value Chain Finance: Tools and Lessons*, Rugby, UK: Practical Action Publishing; Rome: FAO

NEMA. (2016). National Biodiversity Strategy and Action Plan II (2015-2025): Supporting Transition to a Middle-Income Status and Delivery of Sustainable Development Goals. NEMA, Kampala

Orwothwun, C., & Qutieshat, A. (2022). Agriculture value chain finance in Uganda: A brief review of literature. Open *Access Library Journal*, 9(4), 1-18

Twongyirwe, R., Bithell, M., & Richards, K. S. (2018). Revisiting the drivers of deforestation in the tropics: Insights from local and key informant perceptions in western Uganda. *Journal of Rural Studies,* 63, 105-119

UDB. (2024). Climate Finance Facility: Green Products and Services Offering, Uganda Development Bank, Kampala

Uganda Bureau of Statistics. (2020). Uganda Wood Asset and Forest Resources Accounts

World Bank. (2020). Investing in Forests and Protected Areas for Climate-smart Development (IFPA-CD): Transforming the Ugandan forestry sector and landscape for sustainable growth and economic and social benefits. https://ugandawildlife.org/wp-content/uploads/2022/07/Project-Brief-for-Ugandas-Investing-in-Forests-and-Protected-Areas-for-Climate-Smart-Develpment-IFPA-CD-Project.pdf

Wunder, S. (2015). Revisiting the concept of payments for environmental services. *Ecological economics*, 117, 234-243

Wunder, S., & Wertz-Kanounnikoff, S. (2009). Payments for ecosystem services: a new way of conserving biodiversity in forests. *Journal of Sustainable Forestry*, 28(3-5), 576-596

MWE. (2015). Uganda National Climate Change Policy. Ministry of Water and Environment (MWE) chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://ccd.go.ug/wp-content/uploads/2018/04/National-Climate-Change-Policy-April-2015.pdf

MWE. (2016). State of Uganda's Forestry. Ministry of Water and Environment (MWE), Kampala

MWE. (2018). Ministry of Water and Environment. REDD+ Strategy and Action Plan. Kampala, Uganda

MWE. (2022). Updated Nationally Determined Contribution (NDC) for Uganda. Ministry of Water and Environment, Kampala

WWF. (2024). WWF Uganda & AB INBEV Partnership Report. WWF, Kampala

Annex

Annex 1. List of national partners consulted

Contact person/Title	Institution	E-mail	Telephone
Issa Katwesige Ag. Assistant Commissioner	Forest Sector Support Department (FSSD/MWE)	issakatwesige@gmail.com	0782432048
Bob Kazungu Ag. Assistant Commissioner National REDD+ Focal Point	FSSD/MWE	bob.kazungu@gmail.com	0782712196
Margret Athieno Commissioner	Climate Change Department	margathieno@gmail.com	0772470023
Denis Mugagga Head of Climate Finance Unit	Ministry of Finance	Denis.mugagga@finance.go.ug	0702440655
James Muhwezi Senior Climate Finance Officer (Private Sector)	Ministry of Finance		
George Gasana Coordinator, Plantations Development	National Forestry Authority (NFA)	georgegasana72@gmail.com	0772631605
Senyonjo Edward Coordinator, Inventory	National Forestry Authority (NFA)	Senyonjo.edward@gmail.com	0772521432
Francis Ogwal	National Environment Management Authority (NEMA)	sabinofrancis@gmail.com	0772517045
Pauline Nantongo Executive Director Freddie Kalibwani	Environmental Conservation Trust of Uganda (ECOTRUST)	pnantongo@ecotrust.or.ug fkalibwani@ecotrust.or.ug	0772743562
Levand Turyomurugyendo	Uganda Biodiversity Fund	turyomurugyendo.l@gmail.com	0772611402
Leonidas Hitimana FAO Forestry Program Lead	FAO	Leonidas.hitimana@fao.org	0775921320
Zainab Kakungulu Program Officer	FAO	Zainabu.kakungulu@fao.org	0772946101
Dennis Kavuma General Manager	Uganda Timber Growers Association (UTGA)	dennisk@utga.ug	0773 135 240
Moses Kasirivu UTGA SACO Officer	UTGA SACO	M.kasirivu311@gmail.com	0776191414

continued on next page

Annex 1. Continued

Contact person/Title	Institution	E-mail	Telephone
Annah Agasha	Forest Stewardship Council, East Africa Office	a.agasha@fsc.org	0772495544
Edward Onsongo Senior Program Manager	Gatsby Foundation	edward.onsongo@gatsbyafrica.org.uk	+254 721801750
Nick Embden	Gatsby Foundation	nick.embden@gatsbyafrica.org.uk	
Patrick Byakagaba	Makerere University Department of Environment	byaks2001@yahoo.com	0782563709
Erik F. Acanakwo Country Representative	CIFOR-ICRAF	E.Acanakwo@cifor-icraf.org	0774635173
Mubiru Sylvester	MWE		
Collins Amanya	MAAIF		
Arthur Kimeze Ssebuga	GGGI		
Lule Joseph	MWE	josephlule2@gmail.com	0773313107

CIFOR-ICRAF

The Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF) harnesses the power of trees, forests and agroforestry landscapes to shift the trajectories of three global issues – biodiversity, climate change and food security – supported by our work on equity and value chains. CIFOR and ICRAF are CGIAR Research Centers.