



Ministry of Water and Environment

REPUBLIC OF UGANDA

**Consultancy Services for Feasibility Study on a Sustainable
Financing Mechanism/ Model for Plantation Forestry (SFMF) in
Uganda under the IFPA-CD Project**

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**Sustainable Forest Plantation Financing Mechanism Feasibility
Study Report**

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Project Synopsis

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Abbreviations and Acronyms

Acronym	Description
ACE	Area Co-operative Enterprises
ACP	Agricultural Credit Facility
AESA	Agriconsulting Europe S.A
AfDB	Africa Development Bank
AFIP	African Forestry Impact Platform
BMCT	Mgahinga Conservation Trust
BOU	Bank of Uganda
CDM	Clean Development Mechanism
CFM	Collaborative Forest Management
CFRs	Central Forest Reserves
DBH-DR	Indonesia Reforestation Fund
DFCD	Dutch Fund for Climate and Development
DFIs	Development Finance Institutions
DNS	Debts for Nature Swaps
ESG	Environmental-Social-Governance
EU	European Union
FAO	Food and Agriculture Organization
FCDO	Foreign, Commonwealth & Development Office
FIEFOC	Farm Income Enhancement and Forest Conservation Programme
FIP	Forest Investment Programme
FIs	Financial Institutions
FLR	Forest Landscape Restoration
FONAFIFO	Forest Financing Fund
FPDF	Forest Plantation Development Fund
FPDSB	Malaysia Forest Plantation Development Sdn Bhd
FSC	Forest Stewardship Council
FSSD	Forest Sector Support Department
GDP	Gross Domestic Product
GROW	Generating Growth Opportunities and Productivity for Women Enterprises
IFPA-CD	Investing in Forests and Protected Areas for Climate-Smart Development
IFU	Investment Fund for Developing Countries
INVITE	Industrial Transformation and Employment
IUCN	International Union for Conservation of Nature

KIIs	Key Informants Interviews
LIFE-AR	Least Developed Countries Initiative for Effective Adaptation and Resilience
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MAIs	Mean Annual Increments
MEMD	Ministry of Energy and Mineral Development
MFIs	Micro Finance Institutions
MFPED	Ministry of Finance, Planning and Economic Development
MoU	Memorandum of Understanding
MozFIP	Mozambique Forest Investment Project
MSC	Microfinance Support Centre
MTIC	Ministry of Trade, Industries and Cooperatives
MWE	Ministry of Water and Environment
NDP	National Development Plan
NFA	National Forestry Authority
NFC	New Forests Company
NFFs	National Forest Funds
NGO	Non-Governmental Organization
PES	Payment for Ecosystem Services
PFI s	Partnering Financial Institutions
PFP	Participatory Forestry Programme
PICOP	Paper Industries Corporation of the Philippines
PPCPs	Public-Private-Community Partnerships
PPP	Private-Public Partnership
PSFU	Private Sector Foundation Uganda
REDD	Reducing emissions from Deforestation and forest Degradation
SACCOs	Savings and Credit Cooperative Organizations
SDGs	Sustainable Development Goals
SMEs	Small and Medium Enterprises
SPGS	Sawlog Production Grant Scheme
TFF	Tanzania Forest Fund
TFS	Tanzania Forest Service
ToR	Terms of Reference
UAIS	Uganda Agriculture Insurance Scheme
UDB	Uganda Development Bank
UECCC	Uganda Energy Credit Capitalization Company

UNDP	United Nations Development Programme
UNFCCC	United Nation Framework Convention on Climate Change
URA	Uganda Revenue Authority
UTGA	Uganda Timber Growers Association
UWA	Uganda Wildlife Authority
VCM	Voluntary Carbon Market
VCS	Verified Carbon Standards
WRI	World Resource Institute
WWF	World Wide Fund for Nature

EXECUTIVE SUMMARY

Background

The forestry sector in Uganda makes an important economic contribution at the national level, estimated at 3.8% and 3.6% of Uganda's Gross Domestic Product (GDP) in 2017 and 2023 respectively. The sector generated 7.4 billion shillings in FY 2022/23, an increase from 4.5 billion shillings in FY 2017/18¹. It primarily drives Uganda's carbon sequestration efforts in addition to providing other environmental benefits and services. Forests also provide habitats for wildlife, as well as support local community livelihoods, and industrial development in the country.

Since 2004, plantation forestry development in Uganda largely relied on the Sawlog Production Grant Scheme (SPGS), a project-based financing mechanism that came to an end in 2021. SPGS was established with the aim of attracting the private sector to establish commercial timber plantations on land leased from the government. Through this scheme, performance-based subsidies were provided to private individuals and firms for commercial plantation establishment, both on the National Forest Authority's 150,000 ha of Central Forest Reserves (government gazetted land) and on private land. While past investments and initiatives, particularly the SPGS, contributed to increased land under plantation from 32,225 hectares in 2004 to an estimated 314,300 hectares in 2019, this increase in plantation area is not enough to sustain the local demand (including demand for fuelwood) and the growing international timber markets. As in other countries in the East African region, rapid urbanisation and industrial growth, coupled with 85% of the population's reliance on fuelwood for domestic energy, have contributed to high consumption levels of woody biomass that are not matched by investment in expanding the planted area or restocking harvested areas, leaving a growing deficit. However, Uganda possesses a significant potential for increasing the planted area through development of forest plantation using sustainable financing mechanisms.

Supported by the Uganda Investing in Forests and Protected Areas for Climate-Smart Development (IFPA-CD) Project with funding from the World Bank and Government of Uganda, this study was aimed at identifying options and strategies for a sustainable financing mechanism for plantation forestry industry development in Uganda. AESA East Africa was commissioned to carry out the study. The scope of work covered the desk review of existing research and other available materials, stakeholder interviews and consultations with experts. 30 institutions including 6 Government Ministries, Departments and Agencies; 18 private sector entities comprised of sawmilling companies, banks, tree grower societies and Savings and Credit Co-operatives (SACCOs); 4 Non-Governmental Organizations (NGOs); and 2 development partners were interviewed. It aimed at learning from other countries in the region (East Africa), Africa and globally. Specifically, lessons were borrowed from successful cases such as from China, Malaysia, Finland and Sweden, as well as from other non-forestry sector initiatives in Uganda.

Structure of the report

The report covers the following areas:

- Background and context;
- Forest plantation sub sector in Uganda;
- Plantation forestry financing mechanisms analyzed;
- Plantation development enabling policy, regulatory and planning framework;

¹ Uganda Bureau of Statistics, 2023; Annual Statistical Abstract

- Feasibility assessment of various financing mechanisms;
- Concept papers for sustainable financing of the plantation forestry.

The key findings and recommendations are summarized as follows:

Plantation financing mechanisms analyzed

Forest financing mechanisms encompasses a variety of strategies for funding forest conservation and sustainable management including public funding, private sector investments, grants and philanthropic sources, and market-based approaches and innovative financial instruments like Payment for Environmental Services. With this in mind, the study analyzed the following types of forestry financing mechanisms:

- Grant forest financing mechanism: These are financing mechanisms where financial resources are provided in form of grants to support forest conservation and sustainable forest management;
- National Forest Funds (NFFs): These are public domestic funding mechanisms through national budgets, monetary and non-monetary incentives, and direct investment that allow governments to manage and control funding for forestry related activities. Many of the NFFs analyzed combines funding from various sources including grants, debt, concessional lending, guarantees and equity in order to be able to achieve scale and spread risks (i.e., blended finance).
- Private sector investments:
 - Debt /Loan funding: This is funding that needs to be paid back at some stage and that typically attracts interest;
 - Equity funding: This is funding where funders take a stake in the shareholding of the company or venture;
- Innovative financing mechanisms:
 - Debt for Nature Swaps: Debt relief provided to developing countries in exchange for commitments to invest in forest conservation.
 - Market based forest financing mechanisms: These include carbon finance and payment for ecosystem services financing.

Many of the cases analyzed are characterized by a mix of various funding types (either grant, debt/loan, equity, guarantees, carbon etc.). The study cases analyzed have therefore been grouped in the following plantation forest financing categories for ease of reading: grant financing; National Forest Funds financing; debt and grants financing; equity, debts and grants financing; debt for nature swaps financing; and carbon financing. Incentives and their rationale; and joint ventures, guarantees and out-grower financing schemes were also explored.

Grant financing mechanisms

6 case studies funded predominantly by grants were analyzed: 2 from Uganda, 2 from rest of Africa and 2 from other parts of the world. Those analyzed included SPGS; Participatory Forestry Programme (PFP), Tanzania; Mozambique Forest Investment Project (MozFIP); Least Developed Countries Initiative for Effective Adaptation and Resilience (LIFE-AR) and the World Resource Institute (WRI), International Union for Conservation of Nature (IUCN), World Wide Fund for Nature (WWF) Hub. Below is a summary of the key findings and lessons learned.

- They greatly reduce burden of repayment for users/beneficiaries, but are very competitive;

- They have been catalytic in opening space for entry of other financing instruments (e.g. debt, guarantees, joint-ventures and equity) in Uganda;
- They accommodate all categories of players (small, medium and large planters);
- They are friendly in responding to both long gestation period and risk of plantation forestry and more so where other friendly alternatives or instruments are lacking.

Key lessons for Uganda

- Although grant financing is instrumental in expanding forest plantation areas as demonstrated by SPGS, there must be inbuilt mechanisms and incentives to enhance its outcomes, and a predictable and stable enabling environment.
- For many small scales private investors in tree plantation, financial capital and financial management represent one of the greatest constraints to plantation establishment, and therefore grants play a key role in engaging small scale investors, such was the case for SPGS.
- Financing and delivery mechanisms initiated globally such as LIFE-AR are critical in addressing barriers faced by communities in accessing climate finance.

National Forest Funds financing mechanisms

7 case studies funded by multiple financing instruments from both domestic and international sources including public and the private sources were analyzed: 2 from Uganda, 2 from rest of Africa and 3 from outside Africa. Those analyzed included Ghana Forest Plantation Development Fund; Costa Rica's Forest Financing Fund (FONAFIFO); Indonesia Reforestation Fund; and Malaysia's Plantation Development Fund. Below is a summary of the key findings and lessons learned.

- They provide for retainment and re-investments of forestry revenues thereby promoting forestry development.
 - Ghana Forest Plantation Development Fund: Is funded by a fraction of proceeds of the timber export levy (currently 1.5%); grants and loans and the government Consolidated Fund. As a result, the development of plantation forestry has been steady. In 2023, plantation timber accounted for 63% of the total export volume. In 2023, 51% of total export revenues collected amounting to €68,809,415.56 was from plantation forestry.
 - Costa Rica's Forest FONAFIFO: The source of financing consists of allocating one third of the resources generated by the consumption tax to fuels (i.e. earmarked funds) and an inbuilt Payment for Ecosystem Services (PES) program. FONAFIFO also receives 40% of the amount of income from the Wood Tax and provides revolving credits to farmers on friendly terms. In 2023, Costa Rica exported \$46.5M in Wood Products, making it the 99th largest exporter of Wood Products in the world. FONAFIFO has helped Costa Rica to raise its forest cover from 21% in 1980 to 53% today.

Key lessons for Uganda

- A dedicated fund shields forest management programs from unpredictable national budget cuts, allowing for long-term planning and investment in forestry;
- They can be leveraged upon to generate additional finances from multiple sources. For the case of Costa Rica, the combined use of PES, grants, revolving credit and loans through FONAFIFO created

a package of financing instruments that have made the forestry sub-sector to be self-sustaining now in finance;

- They generally cover all the stages of the plantation value chain, and accommodate small, medium and large-scale players;
- Although not established, the Tree Fund in Uganda is provided for in the National Forestry Tree Planting Act Cap. 160 with an aim of promoting tree planting and could serve the same purpose as Ghana Plantation Forest Development Fund or FONAFIFO.

Debt and grant financing mechanisms

12 case studies funded by debt as lead and predominant financing instruments were analyzed: 9 from Uganda and 3 from outside Africa. Those analyzed included commercial banks, Savings and Credit Co-operatives (SACCOs) and financial institutions supporting non forestry activities in Uganda; Finland debt and grant model of financing forestry; Sweden's Performance-based payments from combined debt and grants; and China's multiple financing instruments. The non-forestry initiatives funded by debts analyzed in this study included:

- aBi Finance: Acts as a pool under which different financial instruments (grants, loans and guarantees) are blended to make the package of financing to smallholder farmers and agribusiness affordable;
- Uganda Energy Credit Capitalization Company (UECCC): UECCC has brought on board financial institutions and SACCOs in rural areas to lend to the renewable energy sector, a sector with inherent high start-up costs and risks similar to plantation forestry development;
- Microfinance Support Centre (MSC): MSC is a government owned company established in 2001 to manage all Government of Uganda (GoU) micro-credit programs;
- Uganda Agricultural Credit Facility (ACF): Administered by Bank of Uganda, ACF provides medium- and long-term financing for projects engaged in agriculture, agro processing, modernization focusing mainly on value addition;
- Uganda Agriculture Insurance Scheme (UAIS): Government of Uganda also established the Uganda Agriculture Insurance Scheme (UAIS) in FY2016/17, as a Public-Private Partnership (PPP) between the Government of Uganda represented by the Ministry of Finance, Planning and Economic Development and the private sector. Agriculture Insurance encourages commercial banks to lend to the agriculture sector given the risk associated with agriculture is mitigated through appropriate insurance cover, which thus improves access to agriculture loans.

Below is a summary of the key findings and lessons learned.

- Have been used by planters with grasps of the potential business case of their establishments (e.g. big planters) and are likely to leave out small and medium planters.
- GOU has shown flexibility in changing the forms of organisations it is a shareholder to in order to improve enabling environment to attract types of financing which it would otherwise have not without making adjustments.
- Costa Rica's FONAFIFO revolving credit for plantation forestry development provides favourable terms to farmers, up to 20 years for productive forestry and 10 years for forestry related infrastructure development;

- Malaysia's Forest Plantation Development Sdn Bhd is used by government as Special Purpose Vehicle to give soft loans for plantation development programs;
- Finland is one of the unique countries in that it has enacted laws for forestry financing;
- Subsidy schemes and tax reliefs as incentives are a widely used by the Performance-based Swedish model of financing forestry as a tool to steer future developments in the forest sector to support private sector owners;

Key lessons for Uganda

- It is very opportune for the government to build upon the Financing Institutions and SACCOS growing interest to finance forestry interventions building from their experiences of lending to agriculture under other arrangements like the Agricultural Credit Facility, Agricultural Insurance Scheme, aBi Finance etc.
- With commitment, the government can partner with willing development partners to pool resources for plantation forestry development using a trust originally (as it did in aBi) or a company limited by shares as is the case for UECCC.
- The Uganda Agriculture Insurance Scheme shows that with well-planned Public Private Partnerships (PPP), and government commitment, it became possible to unlock agriculture finance in Uganda from the private sector by de-risking investments where the private sector would otherwise not have invested. This case can be modelled for de-risking plantation forestry in Uganda. Further, the case shows government commitment to cushion the small farmers in Uganda against the agricultural risk, and these small farmers are the majority in Uganda, typical also in forestry sub-sector.
- The lessons from Finland and Sweden bring out the need to have a long-term vision for forestry financing anchored in commitment to either provide appropriations from state government or earmarked revenue which in turn can be used to bring on board other public and private players domestically and globally.
- While mobilizing sustainable financing is very urgent, it has come out from both national and global experiences that it must be anchored in an enabling environment, enforcement of market standards, strong institutions and systems for monitoring, reporting and verifying how the financial resources are utilized.

Equity, debt and grants financing mechanisms

9 case studies from the forestry subsector where equity as a financing instrument was the primary financing instruments and debt, grants and other incentive mechanisms as secondary were analyzed: 4 from Uganda, 2 from rest of East Africa, 2 from other parts of Africa and 1 from outside Africa. Those analyzed included Uganda Development Bank; Criterion Africa Partners; Woodmill Company Ltd; FMO and Finnfund in New Forests Rwanda; FORM Ghana Africa Forest Investment Forum; Africa Forest Impact Platform; and the Dutch Fund for climate and Development. Below is a summary of the key findings and lessons learned.

- Uganda Development Bank is financing three large commercial planters for secondary wood processing and value addition with an option of it taking equity in event the borrowing firms become incapacitated to repay their debt;
- Woodmill Company Ltd, is a company that was recently established by a group of willing 22 members of Uganda Tree Grower Association to add value to their mature plantation stock in a co-investment model with New Forest Asset Management Company using private equity;

- Criterion African Partners is a private equity firm with typical investments ranging from \$5 million to \$30 million with a focus on catalysing growth, increasing productivity, addressing new markets and meeting shareholder liquidity needs. In Uganda, they have invested in Global Woods AG;
- FMO - a Dutch Entrepreneurial Development Bank and Finnfund have signed a shared USD15 million (USD7.5 million each) senior loan to support New Forests Rwanda towards the development of a plantation in a concession located around the Nyungwe National Park (NNP);
- In December 2022, New Forests along with its investment partners British International Investment (BII), Norfund and Finnfund signed subscription agreements for their investment in a dedicated African Fund called the African Forestry Impact Platform (AFIP) for US\$ 200 million, with a plan to increase it to US\$ 500 million in the next 2-3 years;
- Africa Forest Impact Platform will invest in a portfolio of plantation forestry operating companies and related assets in Sub Saharan Africa primarily targeting established assets.

Key lessons for Uganda

- Are dominated by very few investors but commands high average in total plantation (38 %);
- Equity financing and/or in combination with debt and grants is increasing to Uganda but favouring the large already established forestry developers.
- This type of financing would not favour many small and medium planters, that is 56% of planters, and no strong formal out grower schemes around equity.
- The main users of equity are also present in other countries implying that Uganda has to provide attractive enabling environment to remain competitive.
- The declaration of a ban on timber exports in 2023 has made some of the equity finance providers exit the market, having sold their interests to others.
- At operational level, the combination of equity, debt and grants has helped some investors to blend it so that their investments can be more viable than they would otherwise be.
- Government has not aggressively mobilized it despite its great potential.

Debt-for-Nature Swap

The study considered 9 debts for nature swaps (DNS), 2 from East Africa, 2 from rest of Africa and 5 outside Africa. Below is a summary of the key findings and lessons learned.

- Debt-for-nature swap is as an agreement where a creditor country forgives a portion of a debtor nation's foreign debt in exchange for a commitment to invest in specific environmental projects or conservation efforts.
- Debt-for-nature swaps had been used in over 30 countries and had restructured USD 2.5 billion of debt and released USD 1.2 billion into conservation projects by 2022.
- As an indebted country, Uganda would balance its interests for commercial forestry while at the same time reducing its burden for debt.

Key lessons for Uganda

- They present an excellent method of converting burdensome, budget-restricting debt into meaningful environmental and climate actions.
- They can be used as either transition financing option to debt recovery and/or unlocking other friendly financing instruments (e.g., grants).

- They support the government in remaining on course in meeting its obligations (e.g., for climate change action) as government overcomes debt crisis.
- They can accommodate strategy for performance-based financing (as long as this is negotiated between debtor and creditor country).
- They are not well understood in Uganda.
- They tend to take a long time to negotiate and implement because of their complexity and the involvement of multiple stakeholders.

Carbon forest financing mechanisms

The study considered 5 cases from Uganda. Below is a summary of the key findings and lessons learned.

- It is mainly patronized by big plantation planters able to meet transaction costs for certification;
- It is accessible to small holder farmers, particularly under voluntary standards;
- It adds a stream of income to the players;
- It commands a very small market share under forestry sub-sector in Uganda, as it is considered as a secondary source of financing;
- The processes and costs for accessing this finance are generally prohibitive to many players;
- Its current outcome and impacts are still very limited due to barriers that limit many players in plantation forestry development from participating, e.g., high cost of capital, limited local demand and weak regulatory frameworks, low awareness and technical capacity shortfalls.

Key lesson for Uganda

The main lesson is that the carbon finance is already accepted at global level mainly due to global commitment towards the Paris Agreement but the barriers at global and local level limit many players in plantation forestry development from participating. Those already in the market need to be further supported, but for many small holder farmers, carbon finance should be secondary to other types of financing.

Plantation development enabling policy and regulatory framework

Sustainability of commercial forestry finance in Uganda requires stable policies, legal and regulatory frameworks. The policies reviewed in this study bring out strong indications of the government commitment to improve the profitability and viability of the commercial forestry in Uganda. Among others, the policies emphasize: -

- The role of the private sector in both plantation development and private sector resource mobilization;
- The enormous opportunities of forests for addressing challenges of climate change while at the same time unlocking climate finance and carbon market;
- The need to equally invest in regularizing the financing mechanisms for ecosystem services (e.g. Payment for Ecosystem Services, Biodiversity off-sets);
- The urgency for a Tree Fund to encourage investment and ensure sustainable sources of operational and re-investment funds.

Uganda has also formulated an extensive body of legislation in support of forestry investments and other matters pertaining to creating enabling environment for investments. This is clearly demonstrated by the following:

- i. Some laws have in-built provisions to allow government provide incentives to promote good practice and to tap into new and innovative financing mechanisms (e.g. carbon offsets, Payment for Ecosystem Services, carbon finance etc.);
- ii. Some laws strongly give support for recognition and provision of incentives for the public nature of forests;
- iii. Some laws recognize the dependency on wood biomass for energy and call upon government to promote wood fuel plantations and to give the necessary incentives;
- iv. Some of the laws are aimed at implementing government policy targets and enhancing forestry development through provisions of fiscal and non-fiscal incentives;
- v. Some laws have established funds (e.g. Tree Fund, National Environment Fund) with hope that these can support environmental management and tree planting.

In addition to the national policies and legislation, the government of Uganda is a party to the international protocols like the Paris Agreement from which it stands to benefit for financing as they implement relevant climate change response actions.

Despite the strong policy, legal and institutional frameworks, opportunities to strengthen them further exists. These include making the Tree Fund operational, improving inter-institutional cooperation and coordination, and enhancing fiscal, tax, financial and other instruments to encourage to commercial forestry development. There is also a need to overcome regulation barriers by formation of strong associations, cooperatives and apex/umbrella organizations which would systematically lobby for enabling environment for their business in plantation development. Deliberate efforts should also be made to strengthen law enforcement.

Feasibility assessment of various schemes

The study used a set of five broad criteria in order to prioritize the various schemes and options.

1. Potential to incentivize a lot of players (small, medium and large) in plantation development;
2. Relevancy of the option for transformative action across temporal and spatial scale;
3. Institutional suitability, sufficiency and predictability of delivering the financing option;
4. Congruence with national policy, legal and institutional framework;
5. Likelihood to achieve outcomes.

The study used both the quantitative method of forced ranking and qualitative method of consultation with Ministry of Water and Environment and other stakeholders to prioritize and select the options from which to develop concept papers. Applying this methodology, the following options in order of priority were packaged

1. National Forest Financing Facility (using multiple financing instruments) in a blending strategy;
2. Equity financing;
3. Debt and grant financing;
4. Grants;
5. Debt for Nature Swaps;
6. Carbon finance.

The study prioritized four options, NFFs; equity financing; debt and grant financing; and debt for nature swaps; with grants integrated in the performance-based financing (debt and grant financing option). Carbon financing is considered secondary finance as it is based on payment for ecosystem services that could be integrated into the four options prioritized. Concept papers on these options are presented in Chapter 6 and in order of their priority are summarized below.

Concept Paper 1: Uganda Plantation Forestry Financing Facility using blended finance

This option combines public and private capital to address limited financing on the part of government learning from other sectors, in particular agriculture. There are strong justifications for this option:

- i. It provides certainty and predictability of financing of forestry sub-sector characterized by a long gestation period;
- ii. It provides a middle ground for the government in sustaining and expanding investments in plantation forestry (at reasonably low cost because of blending) at a time when government has other pressing financing needs;
- iii. It is one of the financing models the government has lined up among the priority strategies for resource mobilization to fund the National Development Plan IV 2025/26 – 2029/30;
- iv. Pooling public and private financing instruments from diverse sources in Uganda and blending them to support plantation forestry development under this concept paper will directly address two of the main barriers slowing down commercial plantation development in the plantation forestry sub-sector: (i) high perceived and real risk and (ii) poor risk-return relationship.

To implement this option, two scenarios could be explored. In the first scenario, the government could use one of the existing institutions. In the second scenario, the government can exercise flexibility to create institutions in which it partners with other providers of finance not willing to use government systems because of bureaucracy or lack of technical capacity. This mode of delivering blended financing has been seen in the case studies of aBi Finance Ltd and Uganda Energy Credit Capitalisation Company Ltd. Under the same scenario, the government could operationalize the dedicated Tree Fund. Alternatively, government could combine a Tree Fund with the MITI Invest Value Addition Fund which the Ministry of Trade, Industry and Cooperatives is studying with a view of financing value addition in forestry.

Concept Paper 2: Equity financing

Equity financing of forestry plantations in Uganda is highly relevant, offering a sustainable solution for economic development, environmental protection, and social well-being. This approach fosters private sector investment, which is crucial for expanding forest cover and diversifying income sources. Furthermore, this option aligns with the long-term, capital-intensive nature of forestry, providing stable and predictable funding to support sustainable development. This approach also encourages long-term commitment from investors, matching the extended growth and harvesting cycles of trees. Uganda has greatly benefited from equity financing for plantation development especially by big planters such as New Forests Company; Busoga Forestry Company; and Global Woods (Nile Fiberboard Ltd). So, there are good examples to learn from.

In this option, the main implementers are mobilisers of equity capital. However, the government needs to support them in form of the following type of activities and mechanisms:

- i. Public-private-community partnerships, whereby government would give permits to Central Forest Reserves land and also encourage the equity providers to enter into formal arrangements to use

- community land (where it exists) or sign out grower agreements;
- ii. Assessing the incentive regime for plantation forestry relative to other countries and updating Uganda Investment Code and/or recommending new incentives;
- iii. Fighting illegality in wood trade;
- iv. Fighting encroachment in Central Forest Reserves.

Concept Paper 3: Debt and grant financing

The option explored in this concept is the combination of debts and grants preferably debt being managed as a revolving fund, complemented with other incentives. This model borrows lessons from other countries case studies analyzed. For example:

- Costa Rica's FONAFIFO provides revolving credit for plantation forestry development;
- Malaysia's Forest Plantation Development Sdn Bhd is used by government as Special Purpose Vehicle to give soft loans for plantation development programs;
- Sweden provides state guarantees for green investments in forestry in addition to grants and credit.

Loans and grants are justified and relevant for forestry development in Uganda because they provide crucial financial resources for long-term planning, investment, and sustainable management of forests. These financial instruments are particularly important as they address the inherent challenges of forestry, which often involve long-term investments and projects that may not fit easily within traditional budgetary cycles. Grants alone may not suffice because they may not be available all the time but would supplement debt funding. Debt is handy in supporting discreet activities that that can be used for loan repayment e.g., using off-cuts and thinnings to make charcoal.

The study recommends that for a start, it explore whether Uganda Microfinance Support Centre could be an implementing intermediary through which it could give a revolving fund for forestry. Alternatively other suitable institutions could be identified to offer a forestry revolving fund, including one that could easily allow NGOs to provide grants.

Concept Paper 4: Debt for Nature Swap (DNS) financing

The option explored is Debt-for-Nature Swaps (DNS) specifically to constitute one of the models for plantation forestry and at the same time strategically used to unlock carbon finance for forestry. Debt-for-nature swap is as an agreement where a creditor country forgives a portion of a debtor nation's foreign debt in exchange for a commitment to invest in specific environmental projects or conservation efforts. As an indebted country, Uganda would balance its interests for commercial forestry while at the same time reducing its burden for debt. Uganda's public debt stock stood at UGX 96.1 trillion (about US\$ 25.3 billion) by December 2024, with UGX 59.3 trillion (61.7%) in external debt and UGX 36.8 trillion in domestic debt (38.3%).

This financing option will address the following financial cum-development barriers:

- i. Limited flexibility for the government to raise additional resources internally and externally due to current high debt levels;
- ii. Limited leeway for government to take on new investments including forestry when the financial resources have to be used to help the country adapt to climate change;
- iii. Limited capacity of government and the private to raise new and innovative finance including carbon finance.

This concept could jointly be implemented by the Ministry of Finance Planning and Economic Development and Ministry of Water and Environment. This is in line with the National Climate Change Act providing that on matters of climate financing, the Minister responsible for finance shall work in consultation with the Minister responsible for climate change. Further, both the debtor and creditor country have to agree on the preferred choice to enable both maintain trust for what the debt relief can be used for and for ensuring transparency and accountability in its use.

1. BACKGROUND AND CONTEXT

Uganda has a total land area of about 241,555km². Excluding water bodies and wetlands the land area is 204,540 according to the Uganda National Bureau². Most of this land is covered by subsistence farmland and grasslands and an estimated population of 45,905,417 as of May 2024³. The total forested area of the country is about 3.6 million ha. 36% of the forests are owned by the government and the rest (64%) is under private ownership. Forestry is a key economic driver and plantation sub sector plays a critical role in providing sustainable wood sources and reducing pressure on natural forests. Although deforestation during the period 2000 – 2015 was high, Uganda has registered a forest cover increase to 12.4% in 2018 and 13.3% in 2020 according to the study terms of reference. This is attributed to the establishment of plantations by private sector under the National Community Tree Planting Programme, Sawlog Production Grant Scheme (SPGS), licensing of new planters in Central Forest Reserves and increased protection/restoration of degraded Central Forest Reserves.

Uganda possesses a significant potential for increasing this forest cover further through development of forest plantation using sustainable financing. The first step towards revitalizing the plantation sub-sector in Uganda was through the Uganda Forest Sector Policy and Strategy Project (UFSPSP) implemented through the support of Department for International Development (DFID) between 1999 and 2004. It included a forestry sector review, the Uganda Forestry Policy (2001), the National Forest Plan (2002), and the National Forestry and Tree Planting Act (2003). These ushered in a major re-organisation of the government bodies in charge of overseeing the sector – most notably including the creation of the Forest Sector Support Department (FSSD) within the Ministry of Water and Environment (MWE) and the new semi-autonomous National Forestry Authority (NFA). NFA was given the mandate to sustainably manage Central Forest Reserves (CFRs). Among other things, it allocated concessions on Government of Uganda (GoU) forest reserves to the private sector for establishment and management of commercial forestry. In a bid to scale up industrial plantations, the Plantation Strategy (2005) developed by the NFA set aside 200,000 Ha of land in priority of CFRs for plantation development (50,000 ha by NFA and 150,000 ha by the private sector).

In 2004, the Government of Uganda (GOU) started implementing the SPGS. SPGS was established with the aim of attracting the private sector to establish commercial timber plantations on land leased by the government. Through this scheme, performance-based subsidies were provided to private individuals and firms for commercial plantation establishment, both on the NFA's 150,000 ha of gazetted land and on private land. The programme was funded by the European Union (EU), Government of Norway, and the Government of Uganda; and covered three phases (Phase I 2004-2009; Phase II 2009-2013; and Phase III 2016-2021). The SPGS model is illustrated in Figure 1. It is built on a Public-Private Partnership (PPP) model based on the principle of co-investment by both the beneficiary and the Project. The Project pays the beneficiary a conditional and retrospective grant (subsidy) after the latter has made an initial investment in commercial tree planting. The government (public) has granted permits in CFRs to individuals and companies for plantation establishment.

² Uganda Statistical Abstract 2022.

³ Republic of Uganda, 2024. National population and housing census 2024. Final Report.

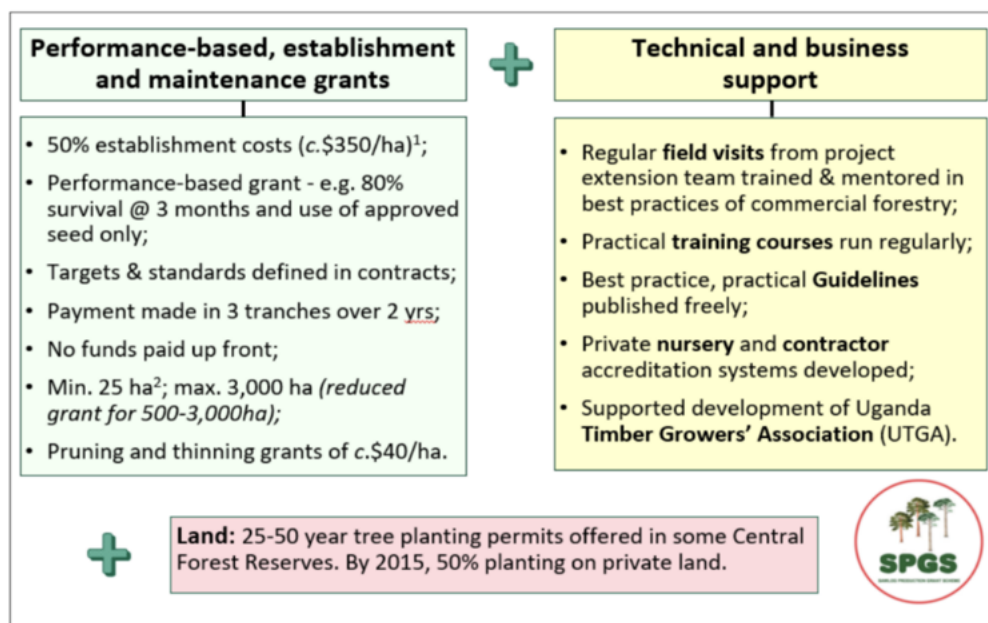


Figure 1: SPGS model

From 2004 to 2019, an estimated 100,000 ha of plantations were established countrywide, over 50,000 ha of which has been directly supported by SPGS. The entrance of a number of large-scale private company operations brought new international financing, industry experience, and niche skill sets into the sector. Increased investment and SPGS subsidies and technical assistance also enabled the development of support services including certified nurseries, plantation establishment and management service providers, and a market-oriented commercial forestry research agenda. While past investments and initiatives, particularly the SPGS, contributed to increased land under plantation from 32,225 hectares in 2004 to an estimated 314,300 hectares in 2019 according to the assignment's Terms of Reference. This increase in the plantation area is not enough to sustain the local demand (including demand for fuelwood) and the growing international timber markets. SPGS has been the catalyst for attracting substantial investment into timber plantations from small-medium local growers to large foreign investors⁴. Less than one-fourth of the area, or approximately 100,000 ha, can be considered 'commercial' plantations aimed at market production.

Forest plantation development in Uganda has been project based. With the ending of the 3rd phase of SPGS in December 2021, and the challenges faced by the private sector investments in plantation establishment outside SPGS, sustainable plantation forest sub sector is needed. This assignment is aimed at carrying out a feasibility study that will identify options and strategies for a sustainable financing mechanism for plantation forestry industry development in Uganda. The assignment is supported by the Uganda Investing in Forests and Protected Areas for Climate-Smart Development (IFPA-CD) Project with funding from the World Bank and Government of Uganda. AESA East Africa was commissioned to carry out the study.

⁴ Jacovelli P, 2010. Uganda's Sawlog Production Grant Scheme. A Success Story from Africa

1.1 Objectives of the assignment

The study aimed at presenting options and strategies for a sustainable financing mechanism for plantation forestry industry development in Uganda in order to reduce the sector's dependency on short term project-financing.

1.2 Scope of work and tasks

Scope of work: The scope of work covered desk review of documents and reports, stakeholder interviews and consultations with experts in Uganda. In addition, benchmarking with countries in the region (East Africa), Africa and globally was also part of the scope of work. In summary, the process involved:

- Interviews with 30 institutions including 6 Government Ministries, Departments and Agencies; 18 private sector entities comprised of sawmilling companies, banks, tree grower societies and Savings and Credit Co-operatives (SACCOs); 4 Non-Governmental Organizations (NGOs); and 2 development partners;
- Analysis of 48 forestry and non-forestry case studies; 23 from Uganda, 11 from rest of Africa; and 14 from outside Africa;
- 2 presentation, feedback meetings and validation workshops; one with MWE staff, and another with the wider forestry stakeholders.

Tasks: There were five (5) tasks in this assignment. These are summarized below.

- Task 1: Review of the current situation, past and on-going funding models for plantation development within Uganda, East Africa and elsewhere (including reviewing fiscal policy and legal framework, current financing models for plantation forestry management).
- Task 2: Review of status and trends in financing small, medium and large size commercial plantations with a view to documenting experiences (success and failure factors) and lessons as well as perspectives for future investments.
- Task 3: Presentation and quantification of the public goods and externalities generated in the sector that justify an investment subsidy.
- Task 4: Proposing the criteria for assessing the feasibility and sustainability of various financing schemes for plantation development.
- Task 5: Detailed assessment and presentation of a “shortlist” of three to five options in concept format indicating among others “what, who, how, costs, assumptions and enabling environment for financing schemes dedicated to forest plantation and value chain development, as well as their viability in context of policy, legislation and practice.

1.3 Outcome of the assignment

Overall, the study's outcome was generation of three to five options in concept form on sustainable forest plantation financing mechanisms, out of which the MWE is to select the most viable option and develop this into a full proposal through a separate assignment. A policy brief was also to be generated to support decision making process.

2. FOREST PLANTATION SUB SECTOR IN UGANDA

2.1 Plantation Forest area

The area covered by forest plantations in Uganda is around 314,300 hectares as of 2019 and 11% of these are managed by NFA, and the rest by the private sector. Despite the increase, the potential for productive forestry to become a strong economic sector exists. This potential could be exploited to meet the country's demand for timber, poles and wood fuel as well as the growing demand from neighboring countries.

Uganda has demonstrated the success of its targeted efforts to develop its plantation sector and thereby partially reduce the pressure on its natural forests. A critical factor in the positive development of the industrial plantation sector has been the SPGS. Figure 2 shows the proportionality of plantation species established by SPGS⁵.

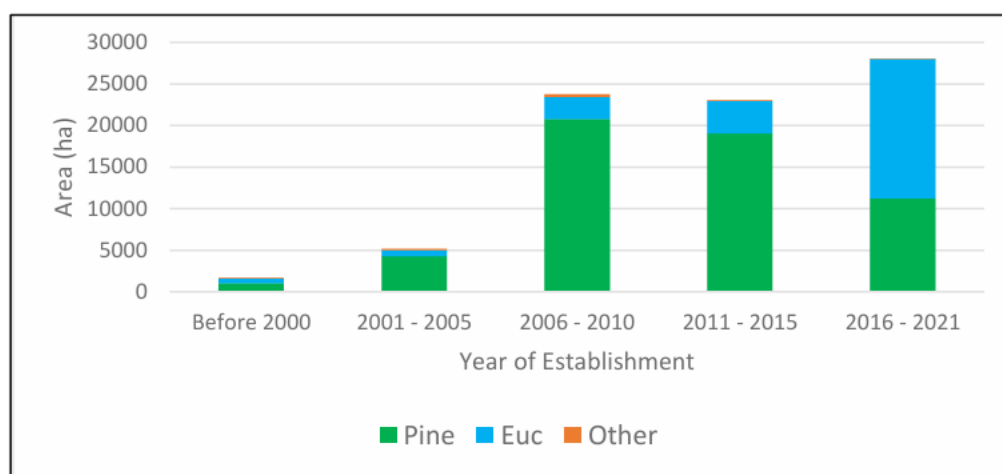


Figure 2: Development of plantation area by species (2000–2021); Source SPGS

The main species established are mainly pine (*Pinus caribaea* var. *hondurensis* and *Pinus patula* and *Pinus oocarpa*) and eucalyptus (*Eucalyptus grandis* and clones) due to their rapid growth and suitability for various wood products. The share of eucalyptus increased significantly in 2016–2021 to approximately 60 percent of the total area established in the period, indicating the recent preference of growers to plant eucalyptus instead of pine. This is because eucalyptus has a shorter rotation and provides a better financial return than long-rotation pine. However, the eucalyptus market in Uganda is largely in balance, and the domestic demand is met by sustainable supply from plantations and smallholder woodlots⁶.

While the Ugandan forest plantation sector is often seen as a success story, and large numbers of small and large investors have entered the sector, the full potential of the sub-sector has not materialized, and the industry is now at a crossroads. The sector needs to find ways to address the emerging imbalance in the market (i.e., one of supply exceeding demand, with a huge spike in mature eucalyptus beginning in 2026, and pine in later years) and to increase production value. Also, the operating environment and technology have changed in the past 20 years after SPGS was established and more plantations were established: for example, issues related to climate change and resilience have become more important. This has created new demands and opportunities for the sector, including tapping climate finance

⁵ World Bank, 2022. The Ugandan Commercial Forestry Sector: Review of the Value Chains and Markets.

⁶ World Bank, 2022. The Ugandan Commercial Forestry Sector: Review of the Value Chains and Markets.

to address the challenges in the sub-sector and to take advantage of the emerging opportunities. This provides the context in which the aspects of sustainable forestry financing have to be construed.

2.2 Plantation value chain and development in Uganda

2.2.1 Key players

The private sector plays a vital role in plantation development. They can be roughly divided into three categories by the area planted – small, medium and large-scale growers. Small growers' own plantations of less than 100ha, medium sized planters manage up to 500ha and larger planters are above that. Figure 3 presents the plantation area by ownership. Majority of the plantations are in the hands of small and medium growers, which is an important factor in analysis of the financial mechanisms in this study, as they play a critical role in the sustainability of the plantations in Uganda.

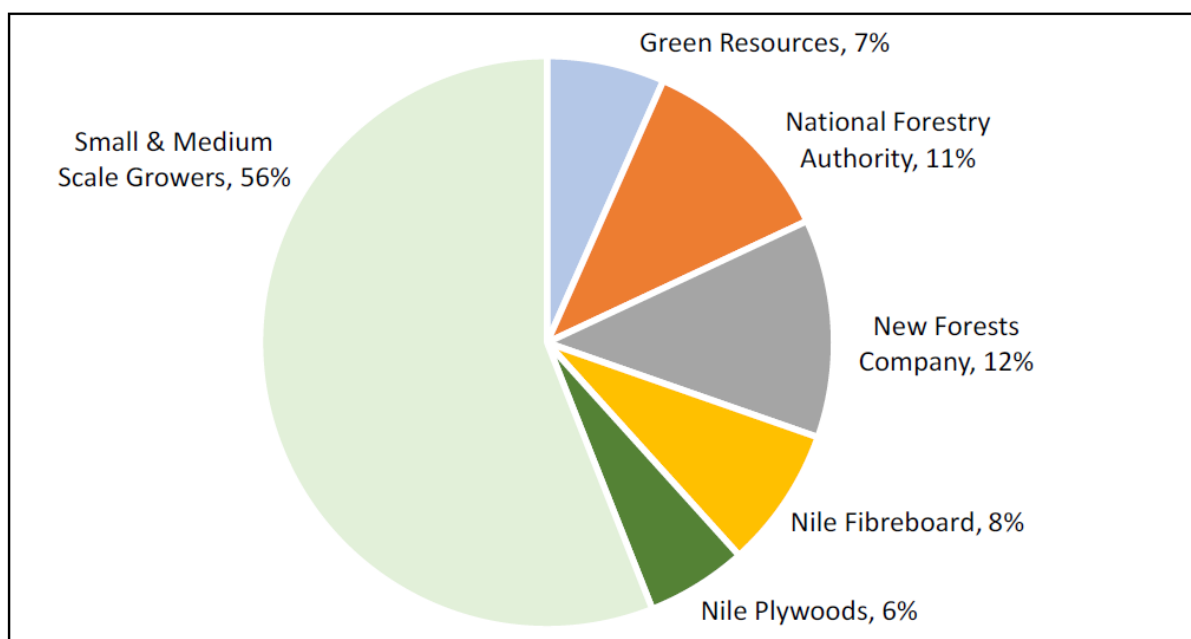


Figure 3: Plantation area by ownership

Large Companies

The four multinational companies are Busoga Forest Company, New Forest Company, Global Woods and Green Resources. These companies are large-scale planters with adequate financial and human resources and some of their plantations are FSC certified.

Small and Medium scale planters

This consists of individuals and companies with plantation sizes of 25 - 500 ha and has attracted a majority of the clientele base for SPGS phase II. They, however, face challenges such as limited resources for establishment and maintenance. Some of the planters have also had challenges in implementing best practices such as timely thinning of plantations and do not adhere to directives under their individual forestry management plans. In some instances, small-scale planters have resorted to selling their plantations at early stages.

Apart from individual planters there are also institutions such as prisons, schools and churches that has established plantations and woodlots in their own land.

2.2.2 Characterization of Wood Value Chain Processes

The main components of plantation value chains are: plantation planting resources; harvesting and transport; processing; and consumption (both domestic and export)⁷. A schematic representation of the wood value chain process is provided in Figure 4 and further described below.

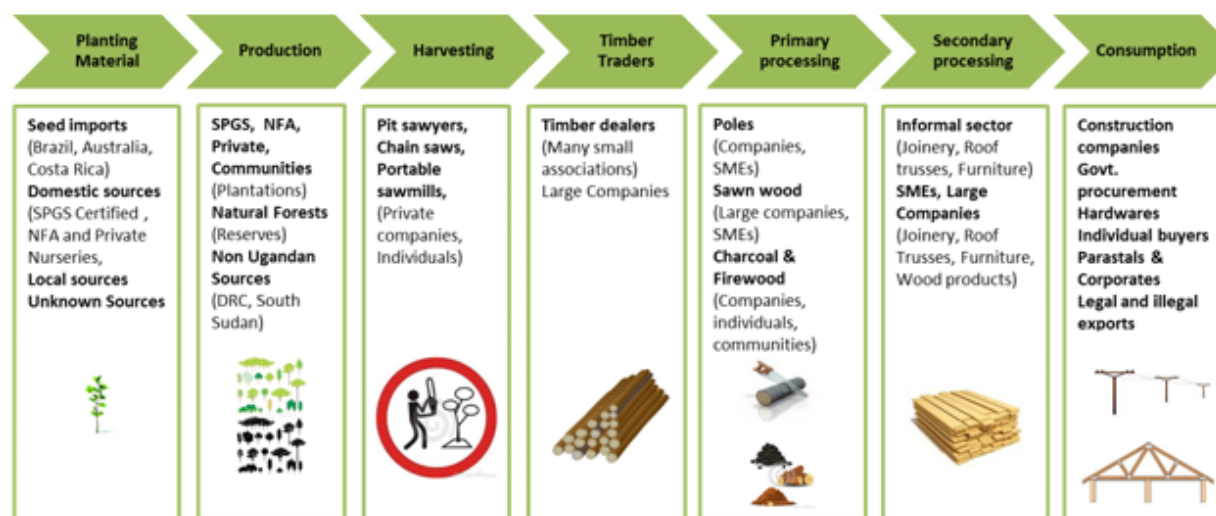


Figure 4: Wood Value Chain Processes

Plantation planting material

In Uganda, the SPGS provided a strong stimulus for the establishment of certified nurseries, first by importing high quality seed for sale to forestry developers in the scheme as well as for other commercial tree growers. This task was later handed over to the Uganda Tree Growers Association (UTGA) who import seed for their own use in their nurseries and for sale to other users. The introduction of clones by SPGS and NFA were instrumental as an incentive to planters as they were able to be in a position to have a quicker turn-around time on return of investments through the thinning periods as the clones mature earlier.

As noted in the 2022, World Bank Report on Ugandan Commercial Forestry Sector: Review of the Value Chains and Markets, the genetic planting material is not the latest available and its genetic base is narrow. There is a need therefore to improve genetic material that is specifically adapted to the growing conditions in Uganda.

Production

Tree growing is undertaken within Central Forest Reserves (CFRs) under NFA and private land and is mostly concentrated in the high potential areas of Uganda, mostly in areas with reliable rainfall and good soils. The production segment is the most sensitive and time consuming in the wood value chain considering that trees within plantations would mature within a period of 12-15 years for *Eucalyptus grandis* and 18 –

⁷ Source: World Bank, 2022. The Ugandan Commercial Forestry Sector: Review of the Value Chains and Markets.

25 years for pines. The plantation husbandry including weeding, pruning, thinning, replanting and general plantation management using the right technical expertise and methods is crucial for the development of plantation timber supply chain. Establishment of commercial forests requires large tracts of appropriate land, and with increasing pressure on high potential areas, there is a need to explore other potential land that can be used to establish other plantation tree species. One of the potential areas of plantation is Karamoja, a region that has not been focused on focus because of various reasons; one the harsh dry environment conditions which is a challenge given the high temperatures and low soil moisture. SPGS III supported the National Forestry Resources Research Institute (NaFORRI) to establish multi-locational trials of dryland tree species and enhance management and control of tree pests and diseases in Karamoja among other dryland areas. Early growth performance results indicated that *Eucalyptus grandis camaldulensis* clones and *Melia volkensii* had good height growth, having attained greater than 1.9 m by 11 months⁸.

UTGA is the biggest umbrella Association with more than 750 commercial tree growers in Uganda who have established over 100,000 hectares of commercial forest plantations across the country since early 2000s⁹. The study found that some of the planters who got permits from NFA to establish plantations in CFRs are not planting according to their management plans and NFA does not have adequate capacity to monitor and supervise planters which is leading to substandard and immature timber products on the market. There are also other challenges associated with policy and financing. One of the respondents in this study had the following to say:

“A key challenge we have faced when we started as a small company is that people who understand forestry business at policy level are very few. This explains why sustainable financing for forestry has been slow forthcoming in this country. It has been made worse by the banking sector that lacks technical expertise to appraise forestry investments”.

Harvesting and transport

Harvesting and transport are the value chain components where the trees are harvested, transported to the roadside, and loaded onto long-haul trucks that transport the logs to the primary processing facilities. Harvesting timber is undertaken by pitsaws, chainsaws and portable sawmills. These are operated by private individuals and companies. As harvesting remains an activity that is conducted in the field, the recovery rates are often compromised due to the inherent inefficiencies. As noted in the 2022 World Bank Report, small- and medium-scale growers use makeshift systems while large growers have invested in low-tech harvesting and extraction systems. It is therefore important to financially support the development of efficient appropriate technology systems for small and medium scale growers. The cost of transport is closely related to the quality and existence of roads suitable for logging trucks. Transport logistics are critical as the costs of harvesting and transport typically account for more than 50 percent of the variable cost of producing logs.

Processing

The main categories of processing are primary processing (harvesting, sawn timber, handling and storage); secondary processing (concerned with the manufacturing of final products - boards, shelving, pallets, doors, and window frames, treatment of poles, carpentry, and joinery); and tertiary processing (trade in furniture and fittings) which is mainly conducted by a few large companies manufacturing wood products and individually owned workshops.

⁸ NARO and NaFORRI, 2020. Commercial Forestry Research in Uganda.

⁹ <https://www.utga.ug/>

Consumption

Large construction companies, most of whom are members of the Uganda National Association of Builders and Civil Engineering Contractors (UNABCEC), represent the bulk of consumers of poles and processed timber entering into the market from formal and informal channels. Telecommunication companies (i.e. UTL – Uganda Telecommunication Corporation), parastatals (i.e. UMEME) and government agencies also source large quantities of poles from the market. Other consumers of timber in Uganda include hardware stores, individual buyers, and corporate companies, not to mention the exporters of processed and unprocessed timber. The domestic demand for timber and wood products is increasing exponentially, especially with respect to the growing real estate environment.

Although the domestic market value of Forest Stewardship Council (FSC) certified wood is less, certification is becoming increasingly important and is a prerequisite to access the lucrative EU and UK markets. Many of the large planters are already FSC certified and are able to penetrate these markets. There would be increased value if the Chain of Custody (CoC) certification could be extended to other growers especially through clustered processing facilities, as this would allow the processing facility to access regional and international markets better. These are some of the key considerations that any sustainable financing options should seek to address in the plantation forest sub sector in Uganda.

2.2.3 Economic viability / profitability of forest plantation growth patterns

The below provides an analysis of growth patterns of pine and eucalyptus as documented by NFA and SPGS.

Table 1: Growth patterns of eucalyptus and pines in Uganda

Species	Growth patterns
<i>Eucalyptus grandis</i>	E. grandis can, if properly managed, yield sawlogs in 8-12 years in Uganda, in cool and wet areas with deep soils, with the best practices, eucalypts can yield real rates of return of over 15% in Uganda. On suitable sites and with good silviculture E. grandis can produce outstanding growth – Average Mean Annual Increments (MAIs) average in Uganda are 25-45m ³ /ha/yr.
<i>Pinus caribaea</i> var. <i>hondurensis</i> (PCH)	PCH grows on a wide range of tropical and sub-tropical sites at altitudes up to 1500m asl and usually MAR of >1,000mm/yr. PCH performs better on shallow soils. PCH can produce MAIs of > 30m ³ /ha/yr on good sites in Uganda but only with excellent silvicultural practices. Average MAIs expected are 15-25m ³ /ha/yr. Rotations for sawlogs are expected to be 18-25 years.
<i>Pinus oocarpa</i>	P. oocarpa grows in a wide range of soils. Best growth, however, will be on well drained, deep soil at approximately 1500m a.s.l. and MAR >1000 mm. P. oocarpa can tolerate long, dry seasons once established. Spacing of 2.7 x 2.7m is recommended (1371 sph). P. oocarpa is expected to yield 15-20m ³ /ha/ yr - generally less than the PCH from improved seed.
<i>Pinus patula</i>	P. patula is best adopted to high altitudes with cool climates, which restricts its commercial planting in Southwestern Uganda, it prefers acidic soils with good moisture supply. A spacing of 3.0 x 3.0m is recommended (1,111 sph); otherwise, 2.7 x 2.7m (1,371 sph) is common. On suitable sites, P. patula can grow extremely fast (over 30m ³ /ha/yr). In Uganda, it is expected to yield 20-30 m ³ /ha/yr on the right sites and with good silviculture.

Source: NFA and SPGS

Eucalyptus plantations in Uganda can be economically profitable, particularly for smallholder farmers, due to the fast-growing nature of the trees and the high demand for their products, including

timber, building poles, and fuelwood. The internal rate of return on plantation forestry investment for sawlogs in Uganda is calculated at 12 to 15% by NFA based on the costs and revenues, period of investment and accrual of financial benefits at current market rates. Key Drivers of Profitability:

- i. **Favorable growing conditions:** Favorable climatic conditions and suitable soil conditions, particularly in Central, Southwestern, West Nile and Northern regions.
- ii. **High-quality silviculture and tree improvement:** Commercial plantations require extremely high standards of silviculture and tree improvement practices (species – site matching, good land preparation, use of high-quality seed, and proper weeding, timely thinning and pruning) leading to high productivity.
- iii. **Tree species:** In Uganda, Pine and eucalyptus are the dominant commercial tree species, with a smaller amount of other species namely, *Maesopsis eminii*, *Cupressus lusitanica*, *Araucaria cunninghamii*, *Tectona grandis*, *Terminalia suberba* and *Melia azedarach* species.
- iv. **Strong demand for wood products:** Demand from wood processors and value-adding manufacturing sector, contribute profitability.
- v. **Market access:** Access to markets and market information is important for sustaining benefits generated from commercial plantations and provides confidence to investors.
- vi. **Land Availability:** Availability of land, particularly in Central, Southwestern, Northern and West Nile regions of Uganda with favorable growing conditions, is a key factor.
- vii. **Government Support:** Government policies and legislation that support access to secure government land, stable markets, and sustainable forestry practices are crucial for the success of plantation forestry.
- viii. **Certification:** Forest certification, is becoming a requirement in some segments of the market, this encourages private producers towards better forestry practices.

2.2.4 Challenges

The wood/timber value chain in Uganda is faces many challenges including unequal and unregulated business environment, limited financing, poor coordination, limited traceability of forest products and poor-quality products.

- i. **Informal forest sector supply chain:** The informal supply chain is dominated by private individuals and small businesses that operate under an unregulated business environment. Their roles have been largely distributed across illegal felling, transportation, illegal and legal trading as well as processing and value addition. At the informal processing segment, traders have formed inward looking associations within the main timber dominated markets. The informal market supplies to private individuals for construction of residential housing and other purposes. The informal market is also experiencing an entrance of timber importers from South Sudan and substitute value addition by Chinese companies. The illegal timber trade constitutes the major supply chain inputs in Uganda and continues unabated. This illegal supply chain makes the market uncompetitive for all players and many of the small-scale players who are unable to sell their produce outside the country as finished or semi-finished products.
- ii. **Regulation and enforcement:** Business environment and level playing field within the industry is a disincentive for most players. Trade associations such as Uganda Tree Growers Association (UTGA) still remains weak with respect to their mandate for lobbying and advocacy and are limited in influencing policy decisions such as export bans of timber products. A strengthened UTGA with

a strong lobbying voice, would provide growers with a wider range of advocacy services to overcome regulation and enforcement challenges.

- iii. **Financing:** Financing for the forestry sector through existing commercial and development banks is hindered by what financial institutions term a high-risk sector and the long-term turnaround time required before plantations start recouping their investments. Box 1 presents some of the impediments faced by operators in accessing commercial finance for forestry.

Box 1: Impediments faced by operators in accessing commercial finance

Finance is a key barrier to tree planting for both large companies and small-scale tree growers. Addressing this challenge will require Uganda to mobilize ‘innovative’ financial resources including from international financial institutions, multilateral development banks, and most critically, the private sector.

- **Exorbitant interest rates:** While large companies are able to access funds from Development Finance Institutions (DFIs), they face a lot of challenges in refinancing the loans because of the high interest rates charged by DFIs. Chances of defaulting on payments are also high especially in companies investing in greenfields since the major revenues from greenfields are not received until the end of tree rotation (over 15 years after plantation establishment). On the other hand, small scale tree growers borrow from local banks at exorbitant interest rates (over 20% and the loan duration is too short (24 -36 months) compared to the rotation of the tree crop. With average lending rates at 21.3% over the past decade and inflation averaging 5.9% in Uganda, the real cost of borrowing is prohibitively high, deterring businesses from pursuing green initiatives¹⁰.
- **Land titles as security:** Small scale tree growers are required to have collateral to secure borrowed funds. Land is preferred as collateral, but in where a title deed is available, the process of establishing a charge against the land in order to borrow from banks can be lengthy and complicated. There are also other risks associated with land as security, such as risk of fires and diseases which discourages banks from using trees as collateral.
- **Unpredictable policy environment and governance gaps:** There are also regulatory uncertainty and governance gaps that hinder Financial Institutions from providing loans to forestry. For example, Uganda’s inconsistent policies and fiscal regime create an unpredictable investment environment. Additionally, governance challenges, including limited institutional capacity, exacerbate these issues, leading to delays and inefficiencies in project implementation.

- iv. **Value Chain Fragmentation:** There is poor coordination within the commercial forestry sector; the sector development initiatives tend to be implemented within silos with institutional interests taking priority. The value chain has for a long term been fragmented and is only recently that players are getting organised in umbrella associations either as cooperatives or limited companies to enable them to process the current resources made available by SPGS grants. There is an increased need for aggregation of enterprises and clustering of resources to increase the effective scale of operations, and to achieve economies of scale.
- v. **Chain of Custody:** With Government and construction companies being the largest buyers of timber in the market, the traceability aspect of source and chain of custody has not been given high consideration with respect to procurement.
- vi. **Poor quality products:** Supply of pine sawn wood from small and medium is mainly of low quality, having been processed in mobile and semi-mobile sawmills where accurate dimensioning and drying are a challenge.

¹⁰ International Growth Centre, (December 2024). Green finance in Uganda: Unlocking sustainable growth. Source: <https://www.theigc.org/sites/default/files>.

2.3 Public goods and externalities generated by plantation forestry

2.3.1 National economic contribution

At the national level, the forest sector is of significance importance to economic development and environmental sustainability, with the sector contributing an estimated 3.8% and 3.6% of Uganda's Gross Domestic Product (GDP) in 2017 and 2023 respectively (UBOS, 2023). Forestry activities include raising tree seedlings, planting, tending, logging, collecting non-wood forest products, and providing support services related to forestry.

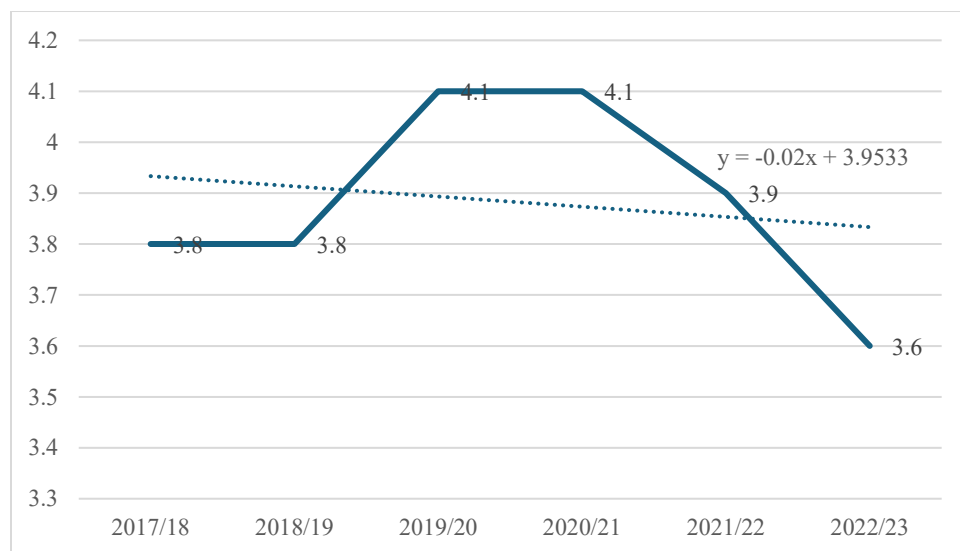


Figure 5: Percentage contribution of the Forest Sector to National DGP between 2017/18 and 2022/23; Source: UBOS, 2023

The forest sector has also had a positive increase in the value addition to the forest products. Between the fiscal year 2017/18 and 2022/23, the value added from forestry activities grew by 5.7 percent. In nominal value, the sector generated 7.4 billion shillings in FY 2022/23, an increase from 4.5 billion shillings in FY 2017/18¹¹. Investments in plantations and value addition are expected to generate economic growth, jobs, income, and fiscal revenues through increased economic activities in sustainable forestry and forest-based value chains.

¹¹ Uganda Bureau of Statistics, 2023; Annual Statistical Abstract

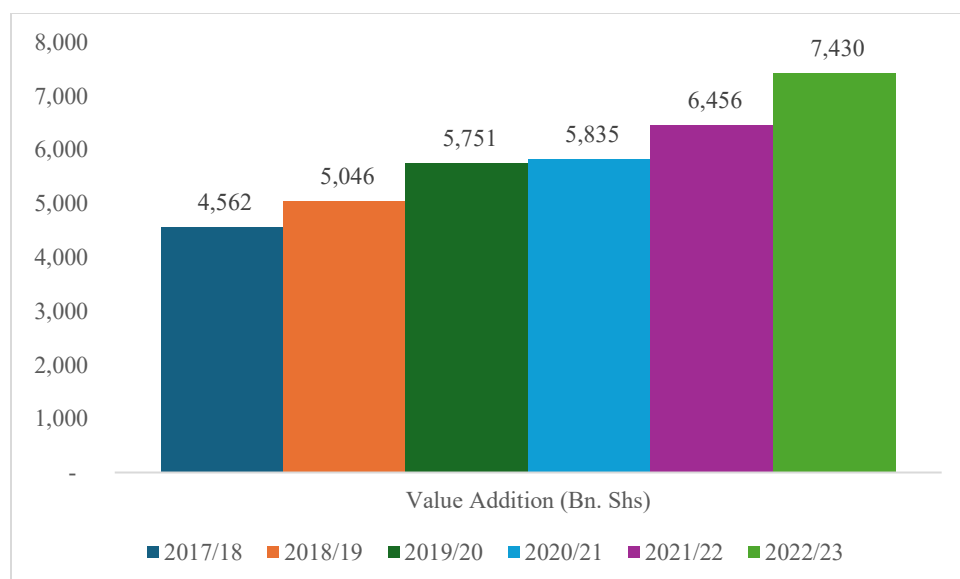


Figure 6: Value addition by the forest sector (2017/18 - 2022/23); Source: UBOS 2023

The volume of timber produced from plantation forestry is expected to significantly increase in the coming years. Specifically, wood flow from pine plantations is projected to increase tenfold, from 200,000m³ per year in 2020 to 2.25 million m³ per year by 2028. Projections also indicate a long-term sustainable yield of 1.2 to 1.4 million m³ per year from plantation forestry.

FAO Report indicates that supply of timber products such as pine sawlogs for timber, veneer and pulp as well as eucalyptus poles and wood residues (chips and sawdust), to the formal market, will increase substantially in the next 10 years. However, the current processing capacity and/or demand in Uganda is in excess of the projected supply of logs. The processing plants supply about 200,000 m³ per year of pine and 35,000 m³ per year of eucalyptus (20% of the estimated eucalyptus supply of 171,000 m³ per year), against a processing capacity of 480, 000 m³ per year as shown in Table 2¹². The remaining 80% of estimated eucalyptus supply is used for transmission poles for rural electrification and construction poles for the expanding building sector.

Table 2: Capacity of the existing timber processing plants

Type of processing plant	Round log intake (m3/year)	Product output (m3/year)	Residue	% of total processing capacity
1. Board (particle and Medium Density Fiber board)	168 000	118 000	50 000	35
2. Plywood (veneer and others)	169 000	92 000	77 000	35
3. Sawmill - Formal	54000	22000	32000	11
4. Sawmill -Mobile	89 000	31 000	58 000	19
Total	480,000	263,000	217,000	100

Source: FAO Report

¹² FAO report: <https://openknowledge.fao.org/server/api/core/bitstreams/e04b5a75-8e10-4e3a-a3cb-794bf74b83e5/content>).

2.3.2 Provision of public goods and environmental sustainability

Uganda's plantation forests are an important and treasured asset that provide multiple environmental, social and economic benefits, meeting the country's needs for wood fuel, timber and poles, providing habitats for flora and fauna, and helping mitigate climate change.¹³

Carbon sequestration

Plantation forests act as carbon sinks, absorbing CO₂ from the atmosphere and helping mitigate climate change (Carbon Sequestration). Plantation sub sector primarily drives Uganda's carbon sequestration efforts. For example, some of the sawmilling companies in Uganda as presented in Chapter 3 of this report have implemented projects under the Clean Development Mechanism (CDM) and the Verified Carbon Standards (VCS), which have helped generate revenues from carbon credits. Forests, including plantations absorb carbon dioxide from the atmosphere, mitigating climate change. Plantation forests have a significant carbon sequestration potential, with rates varying depending on factors like tree species, age, site, management practices. Studies have shown that plantation forests, such as *Eucalyptus* and *Pinus patula*, can sequester substantial amounts of carbon annually, with some studies reporting rates of 4.0 Mg C ha⁻¹ year⁻¹ for *Eucalyptus* and 5.9 Mg C ha⁻¹ year⁻¹ for *Pinus patula*. However, the economics of carbon sequestration in these forests, particularly in relation to CDM (Clean Development Mechanism) projects, can be complex and influenced by factors like carbon prices, contract establishment costs, and stumpage prices. Food and Agriculture Organization implemented Forestry Management and Sustainable Charcoal Value Chain project expects to establish 800 hectares of relatively fast-growing, high calorific mixed wood energy plantations that would offset two (2) million tons of carbon (tCO₂-e) by end of 2025.¹⁴

A study on the economics of the carbon sequestration potential of plantation forestry in south-western Uganda, showed that over a 20-year rotation¹⁵, *P. caribaea* and *E. grandis* plantations sequestered 418 and 638 t CO₂-e ha⁻¹, respectively, over a 20-year rotation. The Net Present Values (NPVs) of *E. grandis* and *P. caribaea* with carbon credits over the CDM carbon-crediting period of 20 years were US\$2 540 ha⁻¹ and US\$1 814 ha⁻¹, respectively. This is higher than the NPVs without carbon credits of US\$1 543 ha⁻¹ and US\$1 390 ha⁻¹ for *E. grandis* and *P. caribaea*, respectively. The average merchantable wood volume accumulated in *P. caribaea* and *E. grandis* plantations over the same period was 279 and 448 m³ ha⁻¹, respectively.

Reduction of pressure on natural forests

Plantation forests play a critical role in reducing pressure for natural forests, which are a principal source of Uganda's Woody biomass, accounting for 89 percent of energy production and 85.2 percent of energy consumption. By providing a sustainable alternative for timber and fuelwood, plantations can help alleviate the pressure on Uganda's natural forests, which are vital for biodiversity and other ecosystem services. As in other countries in the East African region, rapid urbanisation and industrial growth, coupled with 85% of the population's reliance on wood fuel for domestic energy, have contributed to high consumption levels

¹³ MEMD, 2023. Statistical Abstract

¹⁴ FAO 2023. Forest Management and Sustainable Charcoal Value Chain in Uganda Bulletin. <https://openknowledge.fao.org/server/api/core/bitstreams/fc70b39f-c4cf-4605-b313-4c3d6462f5bb/content>.

¹⁵ Isaac Kiyangi, Abdi-Khalil Edriss, Alexander MR Phiri, Buyinza Mukadasi, Susan Tumwebaze & Hillary Agaba (2016): The economics of the carbon sequestration potential of plantation forestry in south-western Uganda, Southern Forests: a Journal of Forest Science, DOI: 10.2989/20702620.2016.1162615 (<http://dx.doi.org/10.2989/20702620.2016.1162615>).

of woody biomass that are not matched by investment in expanding the planted area or restocking harvested areas, leaving a growing deficit.

Fuelwood and charcoal

In Uganda, fuelwood and charcoal are primarily sourced from natural forests, with some contribution from commercial timber plantations. Demand for forest products from these plantations is estimated at 300,000 cubic meters per year. Woody biomass, mainly fuelwood and charcoal, is the main source of energy for most households, with 85% using fuelwood and 13% using charcoal. Biomass therefore accounts for over 90% of the energy supply. Figure 7 shows the amount of woodfuel and charcoal produced in Uganda. Woodfuel demand in Uganda in 2019 was estimated to comprise 37.6 Mt of fuelwood, 2.3 Mt of charcoal and 2.7 Mt of agricultural and forest residues requiring 53.1 Mt of roundwood input. Demand is expected to more than double by 2040 in terms of fuelwood equivalent. The annual value of traded woodfuels is estimated at USD 810 million, comprising 2.3 Mt of charcoal worth USD 580 M, 4.4 Mt of fuelwood worth USD 220 M and 0.3 Mt of residues worth USD 10 M.¹⁶

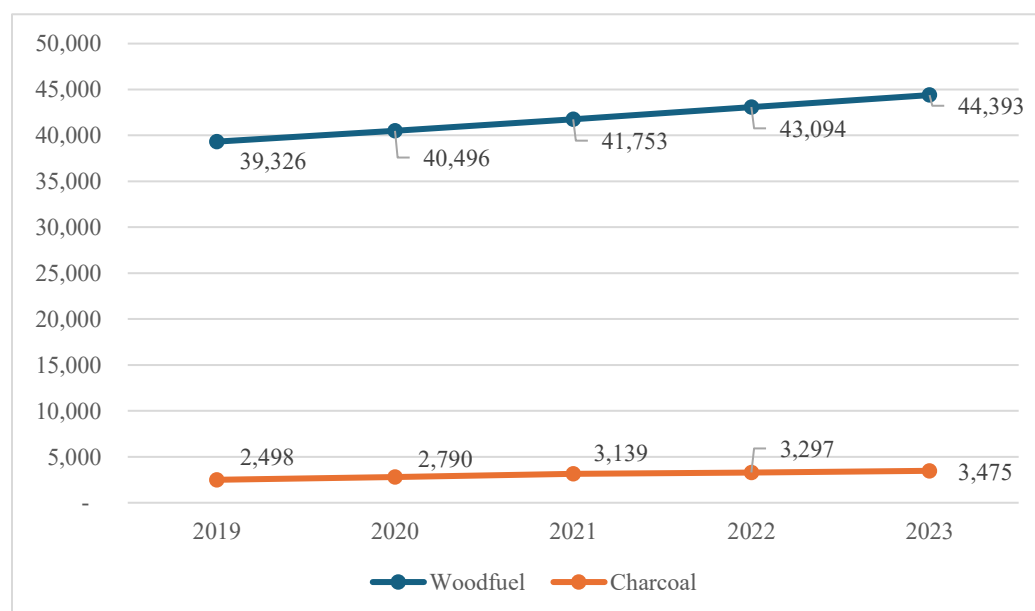


Figure 7: Trends in Woodfuel and Charcoal production (kT) (2019 – 2023); MEMD, 2023

Rural industrialization and livelihoods

Plantation forests provide a reliable source of raw materials (fuelwood and charcoal) crucial for energy needs, especially in the steel, cement, and lime industries driving rural and urban industrialization in across the country. Additionally, the construction sector in Uganda, which is heavily reliant on the forest sector, has been experiencing a steady growth rate over the past decade. According to the UBOS (2022), the construction sector index increased by 3.3% over the 12 months leading up to August 2021.¹⁷ The furniture

¹⁶ WAVES, 2019. Uganda Woodfuels Overview: Technical Report.
<https://www.wavespartnership.org/sites/waves/files/kc/WAVES-Woodfuel%20Overview%20Technical%20Report%20Design%20Layout%20Final%20October.pdf>.

¹⁷ <https://www.ubos.org/construction-sector-index-august-2021/>

industry is also projected to grow at an annual rate of 2.45% from 2025 to 2029.¹⁸ The demand for locally-made, handcrafted furniture is also rising, reflecting a growing interest in supporting and promoting sustainable plantation development investments.

The total value of forests to rural people in Uganda (across the great majority of the country) comes to more than US\$4 billion per year, almost US\$146 for each man, woman and child, or about US\$730 a year for each household¹⁹. Of this value, 72 percent is used domestically, and 29 percent is cash derived from sales. For an average household, the value of forest products breaks down into US\$290 from fuel, US\$180 from building materials, US\$135 from forest foods, US\$60 from fibre, US\$35 from herbal medicines and US\$30 from timber. No doubt the value from forest products would be higher if there were focused programmes for value addition.

Creation of employment opportunities

Plantation forests in Uganda provide employment opportunities in both the formal and informal sectors, with the sector estimated to employ around one million people in tree planting, harvesting, and processing, improving livelihoods in rural areas. WAVES Report 2019 indicates that Uganda's woodfuels industry may employ 870,000 people on a full-time equivalent basis (270,000 in commercial fuelwood value chains and 600,000 in the charcoal industry). *World Bank Report 2023: Indirect Jobs Measurement Paper Issue No. 2., using Business as Usual (BAU) model for employment under IFPA-CD Project*, indicates that the wood production and processing sectors that use plantation wood in Uganda would provide close to 20,000 Full-Time Equivalent jobs in the supply chains. With the increasing supply of roundwood and processing to meet domestic demand, this is expected to increase in the foreseeable future.

Other positive and negative externalities

Positive:

- a) **Biodiversity Conservation:** While plantations may not offer the same level of biodiversity as natural forests, well-managed plantations can offer habitats for some plant and animal species and contribute to overall biodiversity conservation when managed sustainably.
- b) **Watershed Protection:** Forests play a crucial role in regulating water cycles and protecting water sources and preventing soil erosion, which can improve water quality.
- c) **Potential for ecotourism/recreational and aesthetic benefits:** Forests, including some plantations with scenic landscapes, offer recreational opportunities like hiking, birdwatching, and simply enjoying nature, contributing to well-being, the economy and promoting conservation

Negative:

- a) **Deforestation and Habitat Loss:** Plantation establishment often involves clearing existing natural forests or woodlands, leading to deforestation and loss of biodiversity.
- b) **Soil Degradation:** Monoculture plantations, where a single tree species is planted, can deplete soil nutrients and reduce soil fertility over time.

¹⁸ <https://www.statista.com/outlook/cmo/furniture/uganda>

¹⁹ FAO.2013. Forests, Livelihoods and Poverty alleviation: the case of Uganda, by, G. Shepherd, C. Kazoora and D. Mueller. Forestry Policy and Institutions Working Paper No. 32. Rome.(
<https://openknowledge.fao.org/server/api/core/bitstreams/f8b1c590-8521-43f9-85c8-ef0e66144dcb/content>)

- c) **Water Quality Impacts:** Intensive plantation management practices, such as the use of fertilizers and pesticides, can contaminate water sources.
- d) **Displacement of Local Communities:** Plantation establishment may displace local communities that rely on the land for agriculture or other resources.

The dual nature of forest management, namely the generation of both global and national public goods and private profits, the former from forest-based services such as biodiversity, climate change mitigation and the latter from timber and non-timber forest products makes the concept of sustainable forest financing complex²⁰. To be sustainable, forest financing mechanisms must take into account the environmental, social, and governance (ESG) factors of an economic activity or project. According to Convention for Biodiversity Convention, forest financing should support three objectives: forest conservation and sustainable use; maintenance of ecosystem services; and fair and equitable sharing of benefits with a particular focus on forest protected areas.

“A financing mechanism is defined as an institutional arrangement that produces a transfer of financial resources between a provider and a beneficiary, covering all the investment mechanisms and payment mechanisms for forest goods and services, made up of sources, instruments and operators or means of distribution”²¹

- **Grant forest financing mechanism:** These are financing mechanisms where financial resources are provided in form of grants to support forest conservation and sustainable forest management;
- **National Forest Funds (NFFs):** These are public domestic funding mechanisms through national budgets, monetary and non-monetary incentives, and direct investment that allow governments to manage and control funding for forestry-related activities. Many of the NFFs analysed in these chapter combines funding from various sources including grants, debt, concessional lending, guarantees and equity in order to be able to achieve scale and spread risks (i.e., blended finance).
- **Private sector investments:**
 - **Debt /Loan funding:** This is funding that needs to be paid back at some stage and that typically attracts interest;
 - **Equity funding:** This is funding where funders take a stake in the shareholding of the company or venture;
- **Innovative financing mechanisms:**
 - **Debt for Nature Swaps:** Debt relief provided to developing countries in exchange for commitments to invest in forest conservation.

21 Dijk, Kees van & Herman Savenije. 2009. Towards national financing strategies for sustainable forest management in Latin America: Overview of the present situation and the experience in selected countries. Forestry Policy and Institutions. Working Paper 21. FAO, Rome
(https://books.google.co.ug/books/about/Towards_National_Financing_Strategies_for_sustainable_forest_management_in_Latin_America:_Overview_of_the_present_situation_and_the_experience_in_selected_countries_.html?id=MIVrIjSjLZwC&redir_esc=y)

- Market based forest financing mechanisms: These include carbon finance and payment for ecosystem services financing.

Based on the above overview, this chapter presents an analysis of current, past and ongoing plantation financing schemes and projects from various funding types deployed in plantation forestry developments in Uganda, East Africa Region and Globally. Many of the cases analyzed are characterized by a mix of various funding types (either grant, debt/loan, equity, guarantees, carbon etc.). The study cases analyzed have therefore been grouped in the following plantation forest financing categories for ease of reading: grant financing; National Forest Funds financing; debt and grants financing; equity, debts and grants financing; debt for nature swaps financing; and carbon financing. Incentives and their rationale; and joint ventures, guarantees and out-grower financing schemes have also been explored. The analysis mostly relied on stakeholder consultation and interviews, and desk reviews for Uganda case studies; and purely desk review for cases outside Uganda. In all cases, it also relied on expert knowledge. The analysis sought to understand and document the following:

- Background, and aims and objectives of the financing model;
- Financing instruments and structures;
- Institutional arrangements for delivery of the financing support;
- Outcomes and impacts; and
- Key lessons (including strengths and weaknesses, success and failure factors, relevancy and potential applicability to Uganda).

3.1 Grant financing mechanisms

This section analysis case studies funded predominantly by grants from Uganda and other parts of the world through different delivery mechanisms. Case studies analyzed are presented in Table 3 below.

Table 3: Grant funding mechanism case study analysis

Sector	Uganda	East Africa	Africa	Outside Africa
Forestry sub-sector	Sawlog Production Grant Scheme (SPGS) Case Study	Participatory Forestry Programme – Tanzania	Mozambique Forest Investment Project (MozFIP), 2017 – 2022	1. Least Developed Countries Initiative for Effective Adaptation and Resilience (LIFE-AR) 2. IUCN/WRI/WWF Restoration Hub
Other sectors	Coffee financing			

3.1.1 Sawlog Production Grant Scheme (SPGS), Uganda

In 2004, the Government of Uganda recognized the need for a critical mass of forest plantations to meet the country's growing demand for wood. With European Union (EU) funding (conditional grant), the MWE established a Sawlog Production Grant Scheme (SPGS) a grant finance/performance based (incentive based) scheme for supporting small, medium and big commercial timber plantations by private sector players. The primary objective of SPGS was to increase the income of rural populations by promoting

commercial tree planting through the provision of financial grants and technical support to private sector actors, local communities, and institutions, while simultaneously contributing to climate change mitigation through intensive afforestation; essentially aiming to boost rural economies by encouraging large-scale tree planting initiatives. Grants amounting to € 54.6 were provided in three phases:

- Phase 1: (2004– 2009) US\$ 24million (€ 22.56 million);
- Phase 2 (2009 – 2015) €16 million (EU funding €10 million and €6 million Government of Norway); and
- Phase3: (2015– 2020/2024) €16.04million (EU €16 million and Euro 40 000 from FAO (World Bank, 2022).

SPGS had three major components: Financial Grant; Inputs (seedlings/planting material) to landholder low-income community groups with very small acreage (≥ 0.5 acres ≤ 5 ha); and technical support in form of training and onsite advice. A direct financial subsidy to establish forest plantations (Uganda Shillings 935,000 per hectare for beneficiaries with ≥ 15 ha ≤ 500 ha and Uganda Shillings 600,000 per hectare for $\geq 501 \leq 3000$ ha). The beneficiaries, mainly the private sector and local communities were required to:

- First invest their own money based on agreed upon acreage under their contract and be reimbursed for the grant retrospectively on condition that they have satisfied the standards.
- Meet the planting and maintenance standards, including getting seedlings from certified nurseries. The reimbursement of the grant subsidy retrospectively based on a prior signed contract between MWE and planters ensured that planters maintained the agreed upon performance results/ standards.
- Land for planting could be privately owned or CFR land from the government/NFA.

In terms of delivery mechanism, SPGS was implemented by a project management unit under the MWE in Phase 1 and by FAO in phases 2 and 3, the latter brought on board to strengthen accountability and reporting system and to strengthen trust between the donors and the government. Under SPGS; 80,000 hectares of commercial plantations (mainly pine and eucalyptus), 4,485 hectares of community woodlots, and 53 commercial certified tree nurseries were established; 14 groups of contractors were certified; and Uganda Tree Grower Association (UTGA) was established with focus on playing key role for policy advocacy (with some members subsequently forming a Savings and Credit Co-operative (SACCO), UTG-SACCO).

Key lessons from SPGS:

- The reimbursement of the grant subsidy retrospectively based on a prior signed contract between MWE and planters ensured that planters maintained the agreed upon performance results / standards, though there were also instances where those standards were not maintained.
- It strengthened the forestry technical capacity building of private sector and public institutions to support, regulate, coordinate and monitor the forestry sector.
- Provision of access to land in government owned CFRs allowed the planters who would not have been able under the limited size of expansion of their landholdings to establish plantations. By doing so, it enhanced social and economic benefits to the wider community members across the country where there are CFR.
- In some area, it is said to have led to replacement of woodlands for monoculture tree species (*Pine*, *Eucalyptus*, *Teak*, *Melia volkensii* and *Terminalia superba* (umbrella tree) forests) thereby decreasing the variety of plant and animal life compared to natural forests.

- 90% of the plantations were established in CFRs compared to the private land.

3.1.2 Mozambique Forest Investment Project (MozFIP), 2017 - 2022

MozFIP was aimed at improving the practices and enabling environment for forest and land management in the targeted landscapes to improve livelihood of rural households and to attain sustainable natural resource management. With a total investment of \$ 47 million, the Project was structured in three components as detailed below²²:

Component 1: Promotion of Integrated Landscape Management (\$ 19.1 million)

- Regularizing land tenure, promoting community-level land use planning and promoting integrated landscape management tools.
- Strengthening Multi-Stakeholder Landscape Forums (MSLFs) in Zambézia and Cabo Delgado.
- Promoting Multi-purpose Plantations, Agro-forestry Systems and Sustainable Biomass Production (including- Community-forest operator partnerships).
- Establishing agro-forestry systems (AFS).
- Supporting Sustainable Charcoal Production.

Component 2 – Strengthening of the Enabling Conditions for Sustainable Forest Management (\$ 20.2 million).

- Developing the National Land Use Plan.
- Strengthening Forest Governance.
- Strengthening of inspection, detection and control in the forest sector.
- Strengthening enforcement within Conservation Areas.
- Implementation of a forest information system.
- Strengthening of multi-stakeholder forest sector decision making.
- Promotion of sustainable small-scale forest businesses.

Component 3 - Project Coordination and Management (\$ 7.7 million).

In terms of institutional delivery mechanism, the project was implemented by the government in a three phased manner (i) readiness under the National Reducing Emissions from Deforestation and Forest Degradation (REDD+) Strategy, (ii) implementation and investments, and (iii) the results and performance payments phase.

The financing to the government was predominantly grants as follows:

- IDA \$15 million- credit
- Strategic Climate Fund Trust fund administered by WB on behalf of its donors provided US\$13.2 million as loan and US\$ 8.8 million as grant
- The integrated landscape and Forest Management (ILFM) Multi-donor Trust Fund (MDTF) provided US\$10.00 as grant

²² Draft Project Appraisal Report for MOZAMBIQUE FOREST INVESTMENT PROJECT (MOZFIP)(
https://www.cif.org/sites/default/files/meeting-documents/fip_mozambique_031a_ibrd_mozambique_forest_investment_project_project_document.pdf)

The project improved sustainable land management practices in 39,949ha of land area, below the target of 43,000ha. Landscape conserved area by the project covered 27,059 against a target of 37,500ha (fell short of target).

3.1.3 Participatory Forestry Programme y – Tanzania

Participatory Forestry Programme (PFP)²³ was a bilateral programme supported by the Tanzanian and Finnish governments to promote sustainable and inclusive private forestry that contributes to Tanzania's economic growth and alleviates poverty. Although providing limited direct interventions in actual tree planting, this programme which commenced in 2014 (Phase 1 – 2014 to 2019) made a substantial contribution to the development of private forestry plantations mainly in the Southern Highlands of Tanzania mainly on expanding tree plantations on community/village land and establishing Tree Growers Associations. The PFP2 (Phase 2 – 2019 – 2024) addressed the key challenges that were identified in Phase 1: limited security of land tenure; limited technical forestry and processing expertise; loss of biodiversity; low income from timber sales to tree growers; limited access to improved seedlings, new technologies and finance and wild fires.

Grant Financing: Phase 1 (2014 – 2019) had a funding frame from the Ministry of Foreign Affairs of Finland of EUR 19,500,000 with Government of Tanzania contributing EUR 1 million (5% of total budget). The PFP Phase 2 had a 10 M EUR grant from the Ministry of Foreign Affairs of Finland. Tree-planting beneficiaries were organized into Tree Growers' Associations (TGAs). The support from the Programme was given through a Tree Growing Incentive Scheme or TGIS, with TGIS participants being members of TGAs. The PFP used contractual Outgrower Support Program (OSP) as a tool for developing sustainable and high-quality tree growing and strengthening of private plantation forestry-based value chains. In OSP the Programme supported small scale farmers through collaboration with companies, such as Kilombero Valley Teak Company (KVTC) and New Forest Company (NFC). The OSP increased the area of high-quality tree plantations.

Key success of phase 1 include establishment of a microfinance scheme to over 4,000 villagers which has allowed them to engage in small-scale business and access to social support; establishment of 170 ha of high-quality seed orchards in 13 different locations in the Southern Highlands; strengthening of tree growers' organisations and establishment of an apex body to take increasing responsibility of their institutional development; catalyzing technology transfer of over 30 wood processing Small and Medium Enterprises (SMEs) with the potential of doubling their sawn wood production; and developing and demonstrating wood-waste-based products that provide business opportunities and an alternative to natural forest charcoal. In Phase 2, PFP facilitated the development of a guideline for establishing and strengthening TGAs, which has been in use since 2021. A total of 80 TGAs, comprising 4,392 members, received support. TGAs accessed 214.9 million TZS in loans for nursery establishment and other projects. In Phase 2, Small and Medium size Enterprises (SMEs) accessed finance, with 23 youth- and women-led SMEs receiving interest-free loans amounting to 295.5 million TZS for business growth. More than 1,800 customized woodlot management plans were also developed.

Another phase "Forestry, Land Use and Value Chains Development in Tanzania – FORLAND" also funded by the Finland Government covering two years (2025 and 2026) has been rolled out.

²³ [PFP2](#)

3.1.4 Least Developed Countries Initiative for Effective Adaptation and Resilience (LIFE-AR)

The Least Developed Countries Initiative for Effective Adaptation and Resilience (LIFE-AR) is a long-term initiative from the Least Developed Countries (LDC) Climate Change Group, set up to achieve the LDC 2050 Vision for Climate Resilient People, Economies and Landscapes and as a means to strengthen the country's ability to adapt to climate change. LDC Group is a negotiating group within the United Nations Framework Convention on Climate Change (UNFCCC) made up of 45 countries across Africa, Asia, the Pacific and the Caribbean. It is financed with resources under the auspices of climate financing. Uganda is one of the first beneficiary countries. The initiative addresses the barrier of communities in LDCs in accessing climate finance because of bureaucratic and lack of capacity to write and defend proposals yet they are vulnerable to climate change and are already implementing some initiatives on the ground.

Following a request by the state minister for Environment in 2018, Uganda officially joined the LIFE-AR initiative in November 2020. A task force was established to draft a concept note on how LIFE AR would be implemented in Uganda. The concept note recommended the Devolved Climate Finance (DCF) mechanism as the preferred approach to deliver climate finance for local adaptation and resilience building. This mechanism aligns with Uganda's devolved governance system, integrates climate change into local planning, and supports the country's National Climate Change Policy, Nationally Determined Contribution (NDC) and National Development Plan.

The initiative aims to build Uganda's climate resilience by supporting community-driven climate action, with at least 70% of funding directed toward local priorities²⁴. LIFE AR in Uganda will strengthen in-country capabilities, systems and institutions for climate action, ensuring that there's sustained funding for climate action and that at least 70% of this funding supports community priorities. In Uganda, LIFE-AR is anchored within the MWE, and the government (through MWE) appointed International Union for Conservation of Nature (IUCN) as a third party for the management and disbursement of the funds. The country is currently in the Test & Evolve phase where the delivery mechanism will be piloted in 12 districts using a phased approach.

3.1.5 WRI IUCN WWF HUB

The World Resource Institute (WRI), IUCN, Worldwide Fund for Nature (WWF) HUB is a Forest Landscape Restoration (FLR) partnership to accelerate the implementation of FLR at scale, thereby contributing to generating climate, biodiversity, and human well-being benefits. The Hub is initially focusing on Brazil, Colombia, Madagascar, Peru, Tanzania, and Uganda. The FLR Hub aims to restore 200,000 ha of degraded land, leverage EUR 20 million in funds, contribute to the sequestration of 500,000 tonnes of CO₂e, and improve the biodiversity and livelihoods of local communities. It is funded by the German Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety (BMUV) through the International Climate Initiative (IKI).

In Uganda, the Hub is working closely with the Ministry of Water and Environment to accelerate the implementation of restoration in line with Uganda's Vision 2040 and Uganda Green Growth Strategy (2018). It will specifically contribute to the attainment of Uganda's Bonn Challenge commitments, the government's National REDD+ strategy, and NDC targets.

²⁴<https://www.life-ar.org/en/where-we-work/countries/uganda/>

3.1.6 Coffee Value Chain, Uganda

Coffee has been (and still is) a strategic commodity in Uganda which reduces poverty (at micro-level) and macroeconomic management (coffee export proceeds have a direct relationship with the exchange rate). In Uganda coffee exports have significantly increased in value, reaching a record US\$1.14 billion in 2023/24, the highest in 30 years. This represents a substantial increase of 35.29% compared to the previous year. The value increase is attributed to both higher export volumes and improved prices²⁵. Overall, African coffee production makes up [12% of the overall worldwide production](#) of coffee beans. Ethiopia (39%) and Uganda (23%) account for 62% of coffee bean distribution. Some argue that the sustainability of the Ugandan coffee value chain is not hinged on any financing model while others claim sustainability is really dependent on the resilience of small holder farmers who are able to mitigate risks such as price and climatic change risks. Others argue that sustainability of the coffee value chain is hinged on presence of multinationals at export level that provide the necessary pre-financing to traders who buy coffee from small traders or primary processors.

Over years the following factors have also enabled coffee to remain attractive

- i. The Coffee Value Chain has a comprehensive policy (National Coffee Policy) and regulatory framework (Coffee Amendment Act 2024) hinged on the liberalization policy of 1991.
- ii. Government provided targeted funding to give free coffee seedlings to farmers.
- iii. Development partners such as EU, DANIDA, USAID (until recently) have provided both technical and financial support to both the private sector and trade support institutions to enhance the competitiveness of the Coffee Value Chain.
- iv. Coffee, being a **perennial crop**, once established has a **lifespan of over 40 years** which ensures sustainability if the social, economic and environment dimensions are upheld. Caution though should be taken since the cost of establishment is a bit high especially for smallholder farmers.
- v. Medium and large-scale coffee farmers are able to access funding from Uganda Development Bank (UDB) and Bank of Uganda (Agricultural Credit Facility) while processors (primary, secondary and tertiary) can access funding from Uganda Development Corporation (UDC).
- vi. Despite low coffee research funding, the National Coffee Research Institute (NaCORI) has developed new coffee resistant and tolerant varieties which are increasing coffee tree productivity.

On financing, an attempt had been made to establish a coffee fund while formulating the National Coffee Policy in 2013 but this was not accepted by Parliament. Further, a coffee Roadmap which aimed at achieving production of 20 million bags of coffee per year by 2030 had identified financing as one of the 9 initiatives. The Mid-term evaluation carried out in 2023 showed very little progress on coffee financing, indicating even in the coffee value chain, financing is still elusive. Some countries have taken affirmative action for financing of coffee:

- Brazil: The Coffee Economy Defense Fund (Funcafé), managed by the Ministry of Agriculture, allocates funds to support Brazilian coffee farming, including commercialization financing, funding, and working capital.

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[https://ugandacoffee.go.ug/#:~:text=Coffee%20Exports%20Reach%20Record%2DBreaking%20US\\$1.14%20Billion%2C%20Highest,5.8%20million%20bags%20valued%20at%20US\\$846%20million.](https://ugandacoffee.go.ug/#:~:text=Coffee%20Exports%20Reach%20Record%2DBreaking%20US$1.14%20Billion%2C%20Highest,5.8%20million%20bags%20valued%20at%20US$846%20million.)

- Colombia: The National Coffee Fund (FoNC) in Colombia is a parafiscal account, funded by a contribution on exported coffee, that supports Colombian coffee growers through initiatives like research, technical assistance, and marketing efforts, managed by the Federación Nacional de Cafeteros (FNC).
- Kenya: Coffee Cherry Advance Revolving Fund (CCARF) administered by the New Kenya Planters Cooperative Union provides low-cost cash (affordable, sustainable and accessible cherry advance) advances to smallholder-to-smallholder coffee farmers whose land under coffee does not exceed 20 acres.

All in all, in Uganda the sustainability of the coffee value chain is not hinged on any specific/documented financing model, which can be emulated in the plantation forestry sub sector.

3.1.7 Key lessons from grant funding mechanisms

Grant financing is instrumental in expanding forest plantation areas in Uganda, but there must be inbuilt mechanisms and incentives to enhance sustainability. While the forest cover trend of natural forest has been on the decrease between 1990 and 2023, that of the exotic plantation has been on the increase especially between 2010 and 2023 (Figure 8). The increase in plantation area planted is attributed to SPGS model alongside other initiatives. Currently, the wood processing sector is not well equipped and advanced to process the available material, and this was an oversight in the design of the SPGS model. However, EU which started off SPGS is shifting away from supporting plantation establishment to supporting a more comprehensive forestry programme including processing, natural forest conservation and forest governance. Efforts must be made to ensure that SPGS planters get value of their wood at the processing stage, short of which, many may not be willing to establish plantations if they get good revenues from the current stocks.

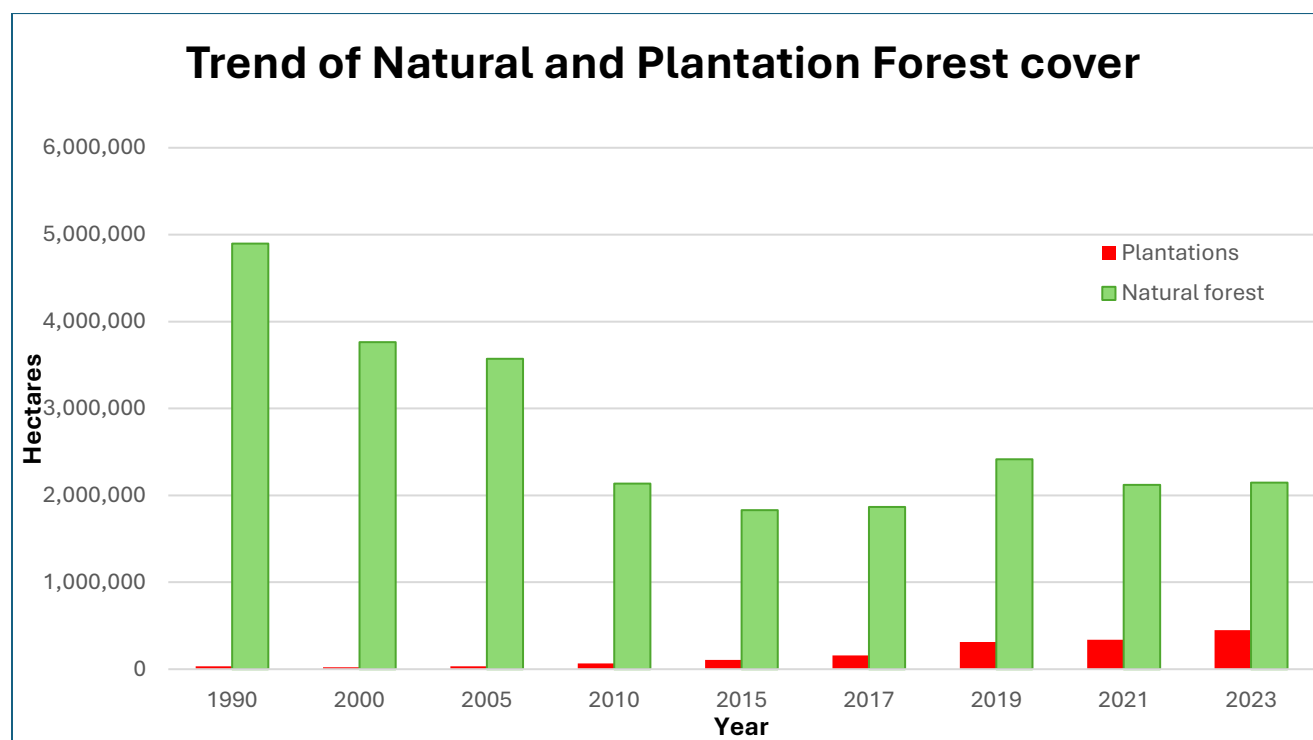


Figure 8: Forest cover trends between 1990 and 2023. Source: NFA (2025 analysis)

Although grants and other incentives have helped in the recovery of the plantation sector in Uganda, there is need for the government to provide a predictable and stable enabling environment which would make the existing planters remain in the sector and encourage others to join as illustrated by the ban on exports of unprocessed timber exports in May 2023. This ban has greatly affected the value of exports (See Figure 9 and 10). It shows a large decline of timber export volumes from slightly over 100 million tons to about 20 million tons from 2022 to 2024 with a turnover revenue decline from over UGX 800 billion to UGX 100 billion during this period.



Figure 9: Timber export volumes and value (2014 – 2024); Source: URA

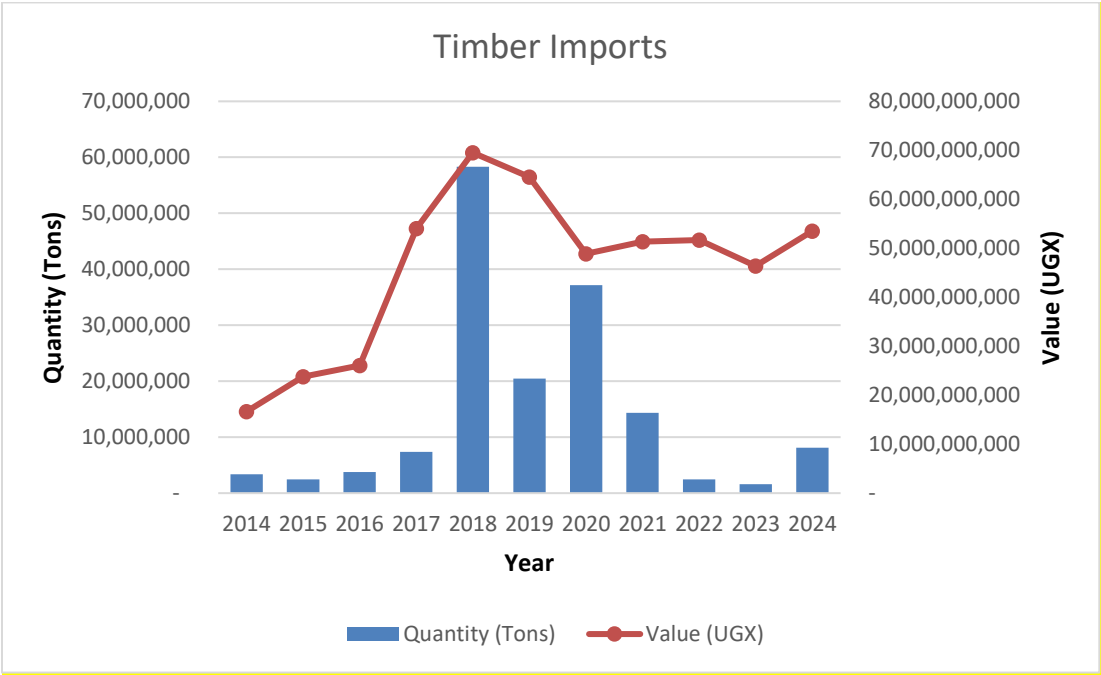


Figure 10: Timber import volumes and value (2014 – 2024); Source: URA

Plantation financing models must in addition to addressing national tree planting goals, also include livelihood improvement as a key component in project delivery. In addition to tree plantation establishment national level goals and objectives, the cases analyzed all were instrumental in fighting poverty and improving livelihoods. Other notable features of the project include:

- a) They were more focused on tree growing for timber, and in some cases for charcoal.
- b) Mozambique's FIP have components for broader natural resource management and conservation of critical areas for ensuring ecosystem services.
- c) Tanzania's PFP had a strong focus on formal/ contractual out grower scheme.
- d) Uganda's SPGs and Charcoal project have strong focus and linkage to climate change response, especially mitigation.
- e) Uganda's SPGS and Tanzania's PFP supported planters' advocacy and member-owned financing organizations.

A phased approach allows for learning and improvement in delivery of interventions. The project analyzed mostly used phased approaches in activity implementation and were generally of national scale level. The Tanzania PFP phase 2 for example addressed the key challenges that were identified in Phase 1. Similarly, MozFiP is designed for a three modular approach that has initiation, acceleration and maturation stages

Land tenure security plays a critical role in enhancing investments as demonstrated by the Mozambique case study. Realizing the importance and relevance of both land and forest tenure rights, the World Bank in designing the Mozambiquan FIP²⁶ ensured that the project included a component for strengthened land tenure and forest tenure in order to promote a strong base for inclusive and participatory engagement with rural populations, to ensure that communities benefit and can continue their own investments on their land, and are incentivized to sustainably manage the natural resources under their control.

For many small scales private investors in tree plantation, financial capital and financial management represent one of the greatest constraints to plantation establishment. Lack of financial incentives has been a major limitation to participation of private sectors in the development of tree plantation business in Uganda, and among other initiatives, SPGS incentivized local communities and the private sector to establish 314,300 ha of forest plantation and as already shown in Figure 2, the small and medium planters co-managed 56% (World Bank, 2022).

Community associations or cooperatives could be leveraged upon to establish plantations in cases where the financing mechanism includes financial contribution as a key requirement. Associations (for women) for example in MozFiP helped them to participate in plantation establishment where individuals could not afford financing contribution.

Lessons from the Tanzania PFP show that a well-designed market information system can serve both the tree grower and the industry. The Tanzania PFP developed a Market Information System (MIS) to provide information to tree growers. Whilst most tree growers have very little ability or willingness to pay for services, they often have simple mobile phones with texting capability to rely information. To minimise

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https://fifspubprd.azureedge.net/cifdocuments/Project/4115/4115_XFIPMZ031A_Mozambique_Project%20document.pdf

costs the programme negotiated a deal with a mobile phone company for sending bulk text messages and using its spatial database of growers it designed a system within which log buyers could target bulk text messages to growers in specific areas who had the desired types of trees. Growers who received the messages and who were interested in selling could then contact the buyers directly. An evaluation of the system in mid-2018 showed very little utilisation of the system for timber trade, however the MIS proved to be useful in disseminating information to tree growers about plantation management priorities and access to high-quality forest planting materials.

The project led institutional delivery mechanisms such as grants-based face institutional challenges such as loss of institutional memory once the projects close; weak integration of systems and data into government systems and high dependency on the use of consultants and technical advisors to deliver most activities. Similar shortcomings can also be experienced when forestry financing is delivered through third party organizations e.g. by FAO for SPGS in Uganda.

Financing and delivery mechanisms initiated at global such as LIFE-AR are critical in addressing barriers faced by communities in LDCs in accessing climate finance. Third party organizations such as IUCN could be appointed to manage and disburse the funding on behalf of government so as to maintain trust with the donors. WRI-IUCN-WWF Hub demonstrated that third parties can play a big role in mobilizing financing, particularly by grants at global level and implement projects at national level, sometimes with other parties. Both LIFE-AR and WRI-IUCN-WWF HUB cases bring out a key lesson that the providers of finance can take an upper hand to dictate the mechanism by which their financing should be delivered, including the terms and conditions that should be met by the ultimate beneficiaries. This partly explains why countries have multiple reforestation/afforestation financing mechanisms.

3.2 National Forest Funds financing mechanisms

In this section, the analysis and lessons are built on the following case studies funded by multiple financing instruments from both domestic and international sources including public and the private sources.

Table 4: National Forest Funds Funding Mechanisms Case Studies

Sector	Uganda	East Africa	Africa	Other parts of the world
Forestry sub-sector	Tree Fund	Tanzania Forest Fund	Ghana Forest Plantation Development Fund	1. Costa Rica's FONAFIFO 2. Indonesia Reforestation Fund 3. Malaysia's Plantation Development/Special Purpose Vehicle
Other sectors	The Bwindi and Mgahinga Conservation Trust			

By definition National Forest Funds (NFFs) are generally looked at as dedicated domestic mechanisms that enable country governments to increase and have better control over finance being channeled to domestic forest-supportive activities. They may be managed in a way to support a variety of actors as well as activities, depending on the country's needs, including public forest agencies, private actors, non-for-profit organizations, community organizations, or a combination of all of these. Forest funds may be coordinated by a national forest or finance ministry or constitute a coordinated spending

instrument/Vehicle at the national level. They are a number of drivers that led many countries to establish NFFs. They are:

- a) To mitigate the frustrations with traditional national budgetary and financial management mechanisms that have consistently made forestry outcompeted by other sectors like infrastructure, health and education.
- b) To mitigate frustrations of budget cuts from national budgets.
- c) To use the NFFs as alternative financing mechanisms to Budget support controlled by government to leverage financing from the donors and private sector which have less trust with solely government-controlled mechanisms.
- d) To recruit and train professionals who understand the needs of subsector.

In terms of their capitalization, in many countries NFFs are considered to be extra-budgetary funds, which the International Monetary Fund defines as “general government transactions, often with separate banking and institutional arrangements that are not included in the annual state (federal) budget law and the budgets of sub-national levels of government”. Most NFFs can also be termed “revolving funds”, meaning funds that are replenished, usually through charges on related goods and services and on lending operations and whose income remains available to finance continued operations, which would otherwise be jeopardized by budget rules that require budgetary appropriations to expire at the end of the (financial) year. In many countries, the laws establishing them give them a lot of flexibility to tap financing from public and private sources both domestically and externally and from diverse financial instruments. However, because not so many providers of finance can come on board at the same time, many governments have taken affirmative action to start off NFFs from well-known earmarked sources of revenue from within and outside the forestry sub-sector.

3.2.1 Tree Fund for Uganda

In Uganda, government established a Tree Fund under the National Forestry Tree Planting Act.2003 to promote tree planting and growing at national and local level; and to support tree planting and growing efforts of a non-commercial nature which are of benefit to the public. The Tree Fund would be funded by monies appropriated by Parliament; loans obtained by Government; grants, gifts and donations; any monies required to be paid into the Fund; and monies from any other source approved by the Minister in writing, in consultation with the Minister responsible for finance. The fund is yet to be operationalized.

The reasons for the failure to operationalise the Tree Fund are many, the key reasons include the restructuring of the Government Ministries in 2006 which resulted in delays to the process and a lack of political leadership within MWE to make any budgetary allocation towards operationalising the Tree Fund (ACODE, 2014)²⁷. The government is now undertaking the restructuring and rationalisation of agencies to cut public expenditure and it is doubtful whether any debate to establish a Tree Fund would attract government favour. Nonetheless, based on interviews and literature, the study found that the sentiments for a sustainable and predictable financing mechanism or a combination of mechanisms for plantation forestry and forestry in general (including for biodiversity conservation and ecosystem services) remain very high. Besides, there are several lessons from other financing mechanisms in Uganda and elsewhere showing that dedicated funds for forestry helped to galvanise effort in resource mobilization

²⁷ Naluwairo, R., et.al., (2014). Operationalization of Uganda’s National Tree Fund: A Process Audit and Call for Action. ACODE Policy Briefing Paper Series, No.29, 2014. Kampala (<https://www.acode-u.org/uploadedFiles/PBP29.pdf>)

towards forestry in general. The National Forestry Policy statement on financing is also still valid. It states: *“Promote innovative financing mechanisms, such as a Forestry Fund, and fiscal incentives in order to encourage investment and ensure sustainable sources of operational and re-investment funds”*.

3.2.2 Tanzania Forest Fund

Tanzania Forest Fund is a Public Conservation Trust Fund established under the Ministry of Natural Resources and Tourism as a long-term sustainable funding mechanism for supporting forest protection, conservation, management and development in Tanzania Mainland. The Fund is operated as **Not-for-Profit** organization though established by Forest Act Cap. 323 and operationalised by a Treasury Circular No 4 of 2009. The fund is capitalized/financed through:

- a) A levy of two per cent of every prescribed fee payable under the Act.
- b) A levy of three per cent of any royalty payable under the Act.
- c) Grants, donations, bequests or such sums contributed by any private individuals, corporate bodies, foundations, or international organizations or funds within or outside the Country.
- d) Any sums realized by the sale of any forest produce confiscated under any of the provisions of this act.
- e) Any income generated by any project financed by the Fund; due allowance being made for any necessary expenses which must be met by any such project.
- f) Any such funds acquired from various sources.

Tanzania Forest Fund is governed by a Board of Trustees and the day-to-day operations are carried out by Fund Secretariat headed by an Administrative Secretary. In terms of support, TFF provides financial grants, material assistance like tools, equipment, technology and technical assistance in form of training. For beneficiaries in plantation establishment, they must have proof of land ownership on top of other requirements like national identification/registration, guarantor.

TFF has contributed to the development of Lilombero Nature Forest Reserve; supported projects that promote modern bee-keeping as sustainable livelihood options for rural areas contributing to both economic development and forest conservation; encouraged the adoption of best practices in forest management including participatory approaches and sustainable harvesting methods; and facilitating the development of infrastructure in protected areas including roads, bridges and communication systems which enhances communication and management. It has also contributed to fighting illegal harvesting of resources and reducing human-wildlife conflicts²⁸, Finally, TFF has been documented as one of the good case studies in having systematic processes for soliciting proposals, granting funds and following up²⁹

The key lessons are that:

- a) TFF’s source of funding is much similar to what has been prescribed for the Tree Fund in Uganda.

²⁸ <https://www.mfukowamisitu.go.tz/>

²⁹ https://unfccc.int/files/cooperation_and_support/financial_mechanism/standing_committee/application/pdf/20150428_fao_towards_effective_nff.pdf

- b) TFF's inclusiveness strategy of diverse players by size (small, medium and large) and with articulated range of support for each is worth noting because it avoids entertaining unnecessary expectations but it also recognizes the varying capacities and comparative advantage of the players.
- c) TFF was established with a lot of simplicity, that is, the Treasury Circular No. 4 of 2009 based on the Forest Act Cap. 323.
- d) TFF is operating as a going concern under the law, and because of this, it is able to invite applications for financing as and when it mobilizes resources, thereby overcoming the uncertainty inherent in time-bound project financing.
- e) TFF as a not-for-profit fund may not be attractive to providers of finance who want its capitalization to grow (e.g. as revolving fund) or those who want to receive a return on their finance invested in the Fund.

3.2.3 Ghana Forest Plantation Development Fund

Ghana Forest Plantation Development Fund (FPDF) was established by ACT 583, 2000 and Amended Act 623, 2002 to provide financial assistance for: (a) the development of private forest plantation on lands suitable for commercial timber production; and (b) for research and technical advice to persons involved in commercial plantation forestry on specified conditions³⁰:

In terms of its financing/capitalization, the FTDF is funded by:

- a) A fraction of proceeds of the timber export levy (currently 1.5%).
- b) Grants and loans for encouraging investment in plantation forestry.
- c) Grants provided by international environmental and any other institutions to support forest plantation development projects for social and environmental benefits.
- d) Moneys to support forest plantation development provided by Parliament from the Consolidated Fund, and from any other source approved by the Minister responsible for Finance.

In terms of delivery mechanism, the Fund's oversight organ is the Forest Plantation Development Fund Management Board, which provides for management and other matters regarding the Fund; defines functions of the Board and provides for the appointment of Forest Plantation Inspectors. Further, the Act obligated the Board of the Forestry Commission, within twelve months of the coming into force of the Act, establishment of a Forest Plantation Development Scheme to cover up to two hundred thousand hectares of land for a period.

Another key player in the plantation development in Ghana is the Forestry Commission responsible for the regulation of utilization of forest and wildlife resources, the conservation and management of those resources and the coordination of policies related to them. It was created under the Forest Commission Act 571 of 1999 and set up subject to the provisions of the 1992 Constitution, Chapter 21, Article 269. Being set up as a Commission under the auspices of the Constitution, the government gave the Commission high visibility and clout.

Within the Forestry Commission, there are two divisions among others whose role and the way they are funded to do their work is worth mentioning under the study, they are the Forest Service and Timber Development Division. The Forest Service Division has mandate to protect, manage and develop forest resources in the national interest for the benefits of owners; establishing planning systems for the protection,

³⁰ <https://mlnr.gov.gh/index.php/forest-plantation-development-fund-board/>

harvesting and development of the forest reserves in a sustainable manner; promote public awareness, understanding and support for the forest resources conservation ³¹.

On the other hand the role of Timber Industry Development Division are: publish market intelligence in order to inform industry, government and public regarding Pricing, Trade and Product trends that could impact on the sector; track the movement of logs from forest gates after the issuance of conveyance certificate; provide management and technical training for the wood industry and undertake the certification and registration of authorized timber graders and establish levels of certification for such graders; grading and measuring of timber and wood products for export and provide development signals to the industry and advise government on the adoption of appropriate incentive to foster efficiency and value addition³².

To note, both divisions have big and complementary roles but of particular interest also is that the divisions share part of revenue from forestry revenue in order to perform their duties as shown in Table 5. The revenue the divisions share is different to that of the Commission as a whole from the timber rights fee. To note further, part of the revenue goes to traditional authorities and local governments for them also to play their roles.

Table 5: Sharing of forestry related revenue among different institutions in Ghana

Type of revenue	Ministry of Finance	Ghana Forest Timber Development Fund	Ghana Forest Commission	Traditional authorities and local governments
Timber rights fee	40%		60%	
Land rental fee (contract area rent)			60% (for Forest Service Division)	40%
Stumpage fee on timber utilization contracts			50%	50%
Export levies		0.5%	99.5% (for Timber Industry Development Division)	

With flexibility to retain and re-reinvest part of forestry revenue in Ghana, the development of plantation forestry has been steady as shown in Figure 11. Ghana's FPDF had by 2014 boasted of 180,000 ha of forest plantation (20%) of which was by the private sector. In 2023, plantation timber accounted for 63% of the total export volume. In 2023 a total of total of €134,434,671.84 was collected out of which 51%, amounting to €68,809,415.56 was from plantation forestry. This milestone is largely attributed to increased production of plantation, driven particularly by private sector players³³. Production from private commercial forest plantations is expected to continue increasing, further sustaining this positive trend.

³¹ <https://newsite.fcghana.org/about-fsd/>

³² <https://newsite.fcghana.org/about-tidd/>

³³ <https://fcghana.org/wp-content/uploads/2024/11/EXPORT-OF-GHANAS-TIMBER-AND-WOOD-PRODUCTS-FOR-DECEMBER-2023-1.pdf>

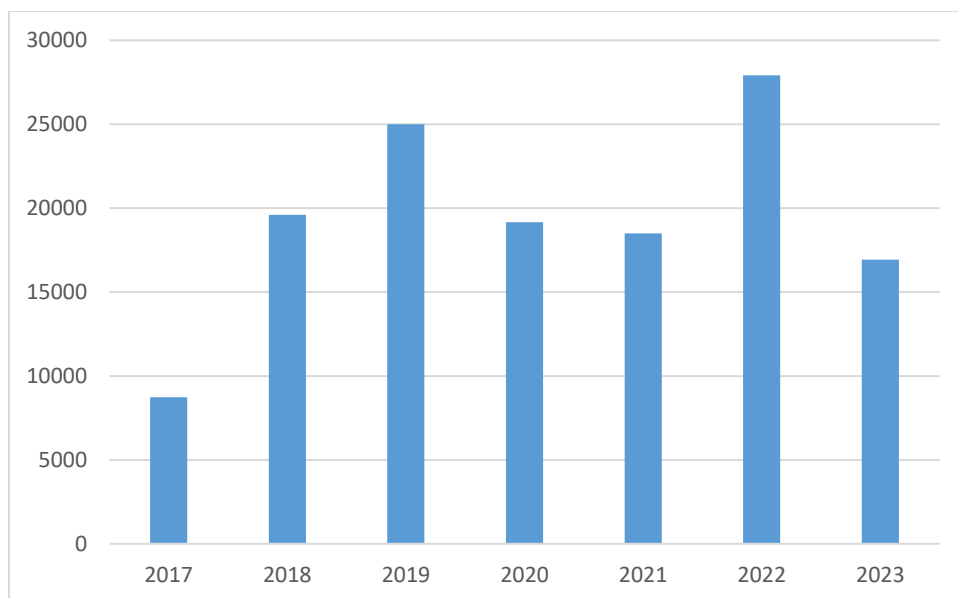


Figure 11: Plantation establishment in hectares in Ghana 2017- 2023

The key lessons from Ghana are that:

- i. Ghana took a deliberate strategy to use earmarked part of forestry revenue for reinvestment into plantation development without having to surrender all to the Consolidated Fund to be allocated by Ministry of Finance under the budget.
- ii. In addition to the Forest Commission in offering a regulatory framework
- iii. The complementary roles played by the Forest Service Division and that of Timber Industry Development Division at different stages in the timber value chain helps to explain the achievements in Ghana.
- iv. Importantly, the allocation of earmarked forest revenue to support the Commission and the two divisions as well as to traditional chiefs and local governments ensured that they were well facilitated to play their roles in support of plantation development.
- v. The use of technology in tracking the movement of logs from forest gates after the issuance of conveyance certificate to export exits helps to fight leakage and illegality
- vi. The registration of timber trades and exporters helps the country know who is allowed to transact in the sector and is a good tool for fighting illegality and informality.
- vii. The use of Forest inspectors also helps ensure compliance with standards.

3.2.4 Costa Rica's Forest Financing Fund (FONAFIFO)

The case of Costa Rica demonstrates that it is possible to reverse forest cover loss with well-chosen and targeted financing instruments/incentives if they are consistently implemented among smallholder land owners on their private land. It offers a lot of lessons for Uganda. Costa Rica experienced one of the highest levels of deforestation worldwide between 1940s and 1980s driven by several factors most of them from outside the forestry sub-sector itself. They included expansion of agriculture for cattle pastures and cash crops (coffee and banana); expansion of cattle ranching fueled by

population growth, and again expansion of ranching and agriculture fueled by international demand for beef and bananas. Whereas forest cover in 1950s was 70% of the country, it had fallen to only 20% by 1987.

However, in 1987, Costa Rica took a bold stand and started implementing regulations for conservation but alongside also introduced the Payment for Ecosystem Services (PES) which incentivized private land owners to protect and restore forests on the private landholdings. Realizing the benefits from PES, Costa Rica in 1996 introduced a new forest law 7575 under which it introduced a ban on conversion of established forests punishable by prison sentences rather than fines, effectively lowering the opportunity costs of converting existing forests. Concurrently, it introduced the alternative in form of offer of incentive payments for reforestation, protecting forests or managing existing forests in private land outside national parks. Thirdly, the law established the National Forestry Financing Fund called (FONAFIFO) as the financing delivery mechanism with objective to finance for the benefit of small and medium producers through credits or other mechanisms. FONAFIFO used PES to pay for maintaining the forest coverage (i.e. forest protection, protection of water resources and post-harvest protection) and for recovery of the forest cover (i.e., reforestation, regeneration and agroforestry systems and technology use in the sustainable management of forests. FONAFIFO was given legal status, that is, it can sue and be sued in its own name. It is managed by a board representing diverse stakeholders including the government, private sector and non-governmental organization (NGOs).

In terms of financing, the main source of financing for the Program for Payment of Environmental Services (PPSA) consisted of allocating one third of the resources generated by the consumption tax to fuels, in accordance with article 69 of Law 7575. The government earmarked 3.5% of fuel tax for PES programme. In 2012 the fuel tax contributed over USD 20 million to the PES program, representing 80 percent of the total funding collected. Over time, the PES program has received significant international financial support. The World Bank Ecomercados program raised around USD 50 million in the period 2000-2007. This initial funding was renewed in 2008 for the period to 2012 with USD 30 million provided by a World Bank loan, a USD 10 million grant from the Global Environment Facility, USD 47.5 million by the Costa Rican government, and USD 2.7 million by other funders (Sanchez, 2012)³⁴. In September 2013 FONAFIFO also signed a letter of intent with FCPF from the World Bank for USD 63 million. FONAFIFO has developed mechanisms and agreements with the local private company to generate alternative sources of financing for the PES Program, which have been extremely successful and have allowed more producers to benefit from the resources mobilized through the application of this instrument. FONAFIFO also receives Forty percent (40%) of the amount of income from the Wood Tax.

Although FONAFIFO started off with PES, it later supported plantation forestry on revolving credits helping many farmers. FONAFIFO gave very favorable terms, up to 20 years for productive forestry and 10 years for forestry related infrastructure development. The financed amount is delivered in 3 disbursements distributed as follows: 60% for initial preparation, establishment and maintenance of the first year; 20% for maintenance of the second year and 20% for maintenance of the third year. This ensures that additional disbursement is based on verified performance and/or progress.

FONAFIFO has a gender-sensitive approach and it offers financing aimed at economic development and improvement of the quality of life of rural women participating in forestry enterprises. It gives credit of up to ₡ 5,000,000.00 for productive development, working capital, infrastructure, purchase of

³⁴ Sánchez, O. (2012), 'The Costa Rican Payments for Environmental Services programme', paper presented at the Fair Ideas Conference, Rio de Janeiro, 16–17 June 2012.

equipment and innovative forest-related projects for women up to 10 years and at 4% interest per annum. FONAFIFO has nine Regional Offices in order to promote functionality and effectiveness to the institution.

The type of sub-programme activities supported under FONAFIFO included those for forest productive development, forestry industry, promoting development, supporting organisations contracted by FONAFIFO and sub programme supporting rural women. They are shown in Table 6 along with their respective **terms and conditions** for financing them.

Table 6: Sub programmes supported under forest credit for plantation development under FONAFIFO

Sub programme	Description of activities eligible for financing	Credit duration/terms
Forest Productive Development	Forest nurseries, forest plantations establishment and management; wood processing of own forest plantations; establishment and management of agroforestry systems; forest management studies and their execution; innovative projects that optimize the use of natural resources; investment in machinery, equipment, infrastructure, purchase of inputs, labor	Conventional up to 20 years. Revolving Line of Credit from 1 to 5 years
Forestry industry	Activities related to the use, transportation, primary and secondary processing of wood and non-timber goods from forest ecosystems and their commercialization; investment in machinery, equipment, infrastructure, purchase of inputs, raw materials and labor, among others referring to the forest industry.	Conventional up to 10 years. Revolving Line of Credit from 1 to 5 years
Promoting development	Infrastructure, equipment and working capital for small ecotourism ventures and other activities linked to the forest, but not necessarily related to wood.	Conventional up to 15 years.
Organisations	Financing to those organizations that have a cooperation agreement with FONAFIFO, to act as a second-tier bank	Conventional up to 10 years.
Micro forest credit	Microcredits up to a maximum amount of ₡ 1,500,000.00 for the different subprograms.	Conventional up to 3 years.
FONAFIFO by your side	Financing aimed at economic development and improvement of the quality of life of rural women	Up to 10 years. Interest: 4% per year

In terms of achievements, in 2023, Costa Rica exported \$46.5M in Wood Products, making it the 99th largest exporter of Wood Products in the world³⁵. In terms of impact, FONAFIFO has helped Costa Rica to raise its forest cover from 21% in 1980 to 53% now (Figure 13) This has been possible because it has consistently attracted a wide range of financing instruments (public and private) from multiple organisations and it has run FONAFIFO well, in an inclusive and transparent manner. Costa Rica's PES programme has facilitated transfer of knowledge to other countries who have now designed similar programmes (e.g. Morocco, the Dominican Republic, Peru etc.).

Some of the enablers of success/achievements are that Costa Rica developed secure property rights in forest areas, including for the private landowners, which incentivized them to participate in government programmes. Secondly, Costa Rica has had very stable and peaceful governance regime, being one the countries that had no army by its Constitution of 1948. Finally, Costa Rica has strong regional training and research institutions located in the country e.g. Tropical Agricultural Research and Higher Education Center (CATIE).

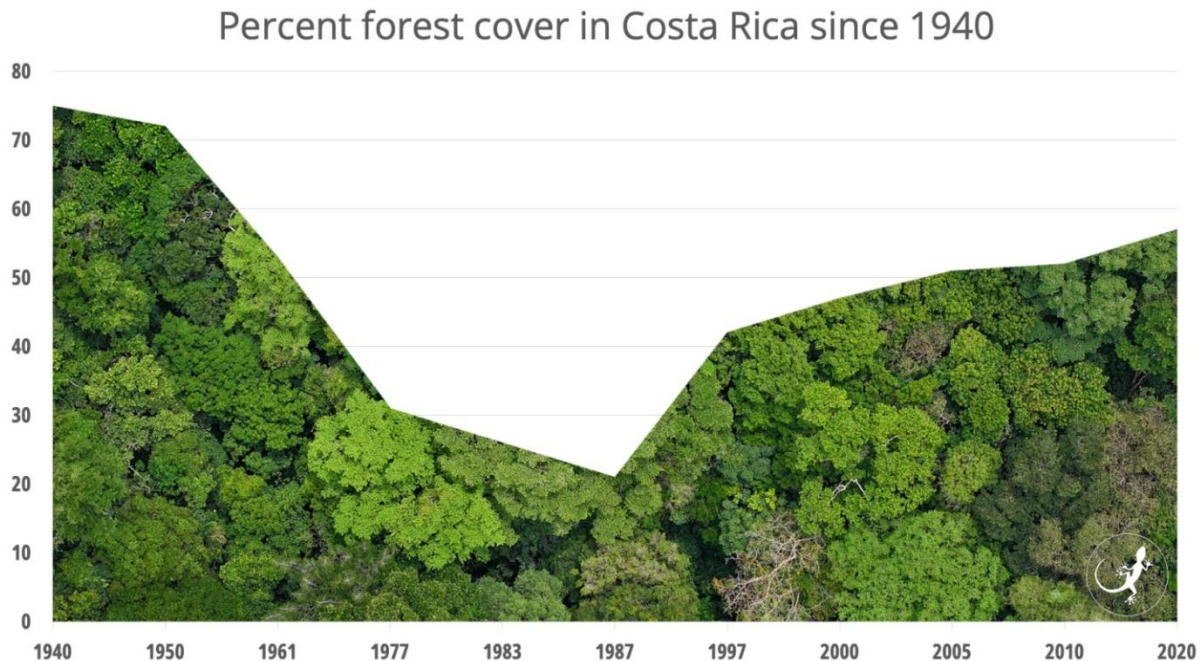


Figure 12: Trends in the loss and recovery of forest cover in Costa Rica, 1940-2020

The lessons from this case study are that:

- i. Costa Rica's commitment to the recovery from loss of forest cover took a dual, complementary and reinforcing strategy of command and control (i.e. banning of conversion of forest land with threat of imprisonment rather than fine) and that of carrots (i.e. Payment for Ecosystem Services - PES and revolving credit for plantation forestry).
- ii. Costa Rica's commitment to implement the above strategy was built on its allocating and earmarking 3.5% of fuel tax to start off PES through FONAFIFO.
- iii. Over time, both domestic and international funders have built on Costa Rica's commitment to start with PES to further support not only the PES programme but also the Plantation development programs of Costa Rica.
- iv. Costa Rica's practical approach to offer PES to small landholders helped to overcome the resistance it would have experienced because of a ban on land conversion for agriculture.
- v. The secure property rights in forests created incentives for smallholder land owners to actively participate in PES and plantation development as more economic land use options compared to going back to unsustainable agriculture.
- vi. The combined use of PES (based on performance), grants, revolving credit through FONAFIFO created a package of financing instruments that have made the forestry sub-sector to be self-sustaining now in finance both for plantation development and different ecosystem services.
- vii. Costa Rica has integrated gender in its financing programs.

3.2.5 Indonesia Reforestation Fund

The history of the country's Reforestation Fund (Dana Reboisasi, DR) is rooted in the politics of commercial logging under Suharto's New Order regime from 1966-98. In the 1980s, the Suharto government took a series of steps to concentrate control over timber rents in Indonesia's forestry sector.

The government introduced the volume-based levy on timber production, which later became the Dana Reboisasi (DR). The DR was set up as an extra budgetary resource in 1989 as a national fund with stated mandate to support reforestation and the rehabilitation of degraded land and forests³⁶.

In 2004, following regulatory changes that saw the transfer of authority over forestry affairs from the regency government to provincial governments, the fund was changed from a special allocation fund (Dana Alokasi Khusus, DAK) to a revenue sharing fund (Dana Bagi Hasil, DBH), which distributes revenues between the central, provincial, and district governments.

In terms of financing, the Indonesia Reforestation Fund (DBH-DR) is financed through a volume-based levy on timber which concessionaires must pay for harvesting timber in natural forests. Funds are earmarked for reforestation, rehabilitation of forests and degraded land, and supporting activities such as forest fire prevention and control, research and development, and capacity-building for local communities. Forty percent of DBH-DR funds are distributed among provincial and district governments for financing reforestation and rehabilitation activities in producer regions. Sixty percent of funds are administered by the national government for reforestation and rehabilitation outside of producing areas as well as for supporting activities.

In terms of achievement, from 1989-2013, the DR had an aggregated revenue of USD 5.8 billion, making it the largest source of government revenues from Indonesia's commercial forestry sector. However, the story of Indonesia is not complete without talking about the variations in governance of the Fund under President Soeharto era (1966 – 1998) and that of the Reformasi era (1998 – to present). Under the former regime, and managed as an off – budget fund, the Fund became the single largest source of revenue with annual receipt of receipts in excess of US\$500 million. However, during the same regime, (between 1994 and 1998) US\$600 million was allocated to finance non-forestry projects. During the Suharto era, the Ministry of Forestry allocated more than US \$1.0 billion in cash grants and loans from the Reforestation Fund to promote commercial plantation development. Many recipients fraudulently marked up their costs and overstated areas planted, causing the programme to fall well short of targets³⁷.

On the other hand, under the *Reformasi* and particularly during the Yudhoyono administration, the Government of Indonesia took important steps to raise levels of transparency and accountability in the administration of the Restoration Fund and other sources of state finance, especially with the strengthening of the Supreme Audit Board. Further in the Reformasi era, Indonesia took steps to stamp out corruption by creating a high-profile corruption eradication commission and the corruption court. The government allowed fiscal balancing law to redistribute RF revenue between central and provincial and local governments in the ratio 60:40. In 1999, and in 2007, Ministry of Finance disbursed 2.2 million from RF to finance the development of 9.0 million ha of industrial and community plantations by 2016.

³⁶ Barr, C., Dermawan, A., Purnomo, H. and Komarudin, H. 2010 Financial governance and Indonesia's Reforestation Fund during the Suharto and post-Suharto periods, 1989–2009: a political economic analysis of lessons for REDD+. Occasional paper 52. CIFOR, Bogor, Indonesia

³⁷ <https://www.cifor-icraf.org/knowledge/publication/2886/#:~:text=During%20the%20Soeharto%20era%2C%20the%20Ministry%20of,programme%20to%20fall%20well%20short%20of%20targets.>

With other reforms, Indonesia has positioned its Reforestation Fund for REDD+ with nearly 90 million hectares under forest cover. It is a major global exporter of wood products, particularly plywood and in 2022, it exported 5.53 billion wood, making it the 10th largest exporter globally.

The main lessons from this case study are that (i) without good leadership following principles of transparency and accountability and without strong checks and balances to hold errant leaders accountable, dedicated funds/extra-budgetary funds in support of forest plantations can be prone to corruption and (ii) with restored good leadership and governance, Indonesia's Reforestation Fund became eligible and attractive to implement REDD+ programme.

3.2.6 Malaysia Forest Plantation Development Sdn Bhd (FPDSB) as Special Purpose Vehicle

Reviewing Malaysia's lessons on the sustainable financing begins with the commissioned study by the Malaysian Timber Council (MTC) in 2003 on the establishment of large-scale forest plantations in Malaysia to alleviate the pressure on the country's natural forests. The study report which was handed to the Ministry of Plantation Industries and Commodities set a target for the ministry to establish 375,000 hectares of forest plantation by 2020. Further under the 9th Malaysian plan, the government included the Forest Plantation Development Programme as a priority programme.

In order to give effect for the financing of the Forest Plantation Development Programme, the government established in 2006 the Forest Plantation Development Sdn Bhd (FPDSB) as a special purpose vehicle to promote, implement the programme and created the Malaysian Timber Industry Board as a company overseen by five people only. The functions of the Fund are:

- i. To promote the establishment of commercial forest plantations to ensure continued sustainability of raw material supply for downstream wood processing industries.
- ii. To secure funds either locally or internationally to support the establishment of commercial forest plantations.
- iii. To provide soft loans to state government agencies and private companies interested in development of forest plantations.
- iv. To standardize activities related to establishment and development of forest plantation, silvicultural management on areas under the Program.
- v. To facilitate development of trading centre for timbers produced by man-made forests.

In terms of financing, the Ministry of Finance allocated RM1. 045 billion for the forestry programme for the period 2006 to 2020 to encourage private participation through soft loan mechanism. The FPDSB manages the disbursement of government loans, the auditing of the plantations and the provision of technical support and foreign companies are eligible to participate. FPDSB also provides financial incentives and technical expertise to private landowners, empowering them to participate in the program and reap the rewards of responsible forestry. This not only boosts timber production for the domestic and international markets but also safeguards natural forests by taking pressure off their exploitation. The financing period varies by species and includes a grace period and a financing repayment period as shown in Table 7. In addition, the original lease agreement is submitted to FPDSB as a security document. In Malaysia, plantation forests have largely been established on soils with poor fertility.

In terms of the scope of activities the financing was for supporting rehabilitation of degraded forests, encroached forests, unproductive state lands, poorly stocked forest areas through planting high value and fast-growing timber species. The plantation programme is mainly focused on two species, namely Rubberwood (*Hevea brasiliensis*) and *Acacia mangium*. Other additional species promoted under the programme include Teak (*Tectona grandis*); Sentang (*Azadirachta excelsa*); Khaya (*Khaya ivorensis*/ *Khaya senegalensis*); Kelempayan/Laran (*Neolamarckia cadamba*); Batai (*Paraserianthes falcataria*) and Binuang (*Octomeles sumatrana*).

Table 7: Terms and conditions of financing under Malaysia Forest Plantation Development Sdn Bhd

Species	Loan Period
Rubberwood	13 years
Forest species	13years
Bamboo species, Paulownia and Eucalyptus	12 years
Grace period (with yearly compounded interest rate)	
Species	Grace period
Rubberwood	8 years
Forest species	8 years
Bamboo species, Paulownia and Eucalyptus	7 years
Repayment period (with daily compounded interest rate)	
Species	Repayment
Rubberwood	5 years
Forest species	5 years
Bamboo species, Paulownia and Eucalyptus	5 years

The key lessons for the Malaysia case study above are:

- i. Ministry of Finance established Forest Plantation Development Sdn Bhd (FPDSB) as a Special Purpose Vehicle and allocated to RM1.045 billion for the implementation of the Forest Plantation Development Programme for use by the private sector and state agencies using soft loans.
- ii. The oversight organs for the use of funds are a 5-member Board under the Malaysian Timber Industry Board-a company set up by government to manage the fund.
- iii. The original lease agreement is kept by FPDSB as security and in return planters can use the soft loans for between 12 and 13 years with grace periods ranging between 7 and 8 years depending on species.
- iv. Malaysia insisted on high value and fast-growing species.
- v. Malaysia recognizes the variations in the growth attributes of tree species and accordingly provides financing and incentives to match the potential lifespan for the growth of those diverse species.

3.2.7 The Bwindi and Mgahinga Conservation Trust, Uganda

Although not a forest fund as such, the Bwindi and Mgahinga Conservation Trust (BMCT) is one of the sustainable financing models for conservation in Africa. BMCT was established as an endowment conservation trust managed by a Board with representatives from government, the private sector and Non-Governmental Organizations (NGOs) to invest the proceeds from the endowment in conservation related projects in and around the two national parks, Bwindi NP and Mgahinga NP. The designers felt that the endowment would need a capital base of \$ 10 million to have desired impacts and make a meaningful contribution to conservation. The GEF through the World Bank provided \$ 4.3 million. The Trust later attracted grant funds, the first from USAID and then from the Dutch government. These funds allowed the BMCT to operate without dipping into GEF funds. According to the Annual Accounts 2022/2023, the

endowment stood at UGX 20.7 billion³⁸. By its design according to the Trust Deed, 60% of the revenue is ring-fenced to fund community projects, while 20% goes to research and monitoring and 20% to administration.

In terms of impact, the BMCT has been able to enhance conservation of both Bwindi and Mgahinga National Parks, explaining the survivability and increase of mountain gorillas over time which has become a flagship tourism product in the Greater Virunga Landscape. At the commencement of BMCT, Bwindi was the most degraded forest reserve (before it was made a park) of the twelve forest reserves that were studied in the early 1990s³⁹. Bwindi Impenetrable National Park generated 52% of the Uganda Wildlife Authority (UWA)'s gross income in the 2018/19 fiscal year, topping all the other nine parks. It is also driving new private developments and is a model for enhancing cross-border collaboration with Rwanda and DRC under the Greater Virunga Transboundary Collaboration.

No doubt, without dedicated funding (i.e. BMCT) for the two parks, the parks would not have registered the above impacts, including the positive attitudes of communities towards conservation. The communities have also been able to share 20% of the entrance fees to the parks for their local projects in addition to the 60% of the revenue from the trust fund. According to the National Tourism Sector Development Plan 2015/16-2019/2020, out of UGX 36 billion that the communities shared as park entrance fees, those around Bwindi got UGX 7.1 billion equivalent to 19.7%⁴⁰. Further, in June 2025, Uganda Wildlife Authority disbursed to communities living around the Bwindi-Mgahinga Conservation Area (BMCA) a total of UGX 2,197,559,618 for revenue sharing funds earned recently⁴¹.

The key lessons from BMCT are that:

- i. The dedicated fund under BMCT, cost-effectively overseen by a Board represented by government, private sector and CSOs and with articulation of how the revenue from the trust should be shared can guide in setting some principles for mobilizing and utilizing financing for forestry.
- ii. The cost-effectiveness for the delivery of financing was set at within the trust deed which allocated only 20% of the revenue for the purpose
- iii. Recognizing the complementarity of conserving natural forests and establishing plantation forestry and financing them concurrently under one or separate financing mechanisms allows for increasing benefits of forests for many beneficiaries at local, national and global levels.

3.2.8 Key lessons from NFFs financing mechanism

Box 2 provides the key lessons.

Box 2. Overarching messages and lessons from dedicated National Forest Funds

- i. Although the laws establishing NFFs gave them leeway to be capitalized from multiple sources, the governments in some countries conveyed their commitment to start them off using earmarked revenue.

³⁸ <https://bwinditrust.org/>

³⁹ Howard, P.C. (1991). Nature Conservation in Uganda's Tropical Forest Reserves. IUCN, Gland, Switzerland and Cambridge, UK. xvii + 313 pp(<https://portals.iucn.org/library/sites/library/files/documents/FR-003.pdf>)

⁴⁰ (<https://www.greenpolicyplatform.org/sites/default/files/downloads/policy-database/UGANDA%29%20National%20Tourism%20Sector%20Development%20Plan%202015%2C2016%20-%202019%2C2020.pdf>)

⁴¹ <https://ugandawildlife.org/news/uwa-disburses-ugx-2-19-billion-to-bwindi-mgahinga-communities/>

ii.	Recognizing the long gestation period for plantation forestry, the risks involved and the lack of startup or upfront capital, countries have broken barriers by providing grants and credit over long time in some cases with varying years of grace period and attractive interest rates and sometimes by tailoring financing to the lifespan of tree species.
iii.	Well-designed national forest funds can attract international donors and funding to support forest conservation efforts on a larger scale.
iv.	Besides prioritizing establishment of long term financing mechanisms, governments have also realized that it is equally important to invest in strong regulatory institutions; to support extension and advisory services, research and training; to fight illegal harvesting of timber from natural forests where possible using log tracking technologies; to make comprehensive forestry investment programmes/schemes and to mobilize diverse stakeholders to play their roles (e.g. traditional chiefs, local governments, CSOs/NGO, individuals and the private sector).
v.	It has also become evident that secure property rights for forest resources is big enabler for participation of not only the private sector large planters but also for smallholder farmers and women.
vi.	Without good leadership following principles of transparency and accountability and without strong check and balances to hold errant leaders accountable, dedicated funds/extra-budgetary funds can be prone to corruption e.g., Indonesia
vii.	Funds in NFFs can be used to support and incentivize initiatives that balance multiple values of forests for say direct use values (e.g. timber, NTPs, energy biomass), indirect values (e.g. watershed protection, carbon storage, nutrient recycling), existence values (e.g. biodiversity and wildlife conservation) and option values, i.e. future direct and indirect values.

3.3 Debt and grant financing mechanisms

In this section, the analysis and lessons are built on case studies with debt as lead and predominant financing instruments in which the providers or funders expect market rate interest rate but may also provide grants as secondary to debt from both forestry subsector and other sectors. Table 8 provides a list of case studies analyzed. They include commercial banks, Micro Finance Institutions (MFIs) and Savings and Credit Cooperative Organizations (SACCOs).

Table 8: Debt / debt and grant combined financing model case studies

Sector category	Uganda case studies	Case studies outside Africa
Forestry sub-sector	1. The Farm Income Enhancement and Forest Conservation Project (FIEFOC-Phase 1 and 2) 2. Banks and SACCOs - I&M, Absa, Kenya Commercial Bank, Opportunity Bank, Pride Bank, Stanbic Bank, Centenary Bank and SACCOs (e.g., UTG-SACCO)	1. Finland debt and grant model of financing forestry 2. Sweden's Performance-based payments from combined debt and grants 3. China's multiple financing instruments-domestic and foreign
Other sectors	1. aBi Finance 2. Uganda Energy Credit Capitalization Company 3. Microfinance Support Centre 4. GROW Project 5. Uganda Agricultural Credit Facility 6. Uganda Agricultural Insurance Scheme (UAIS) 7. The climate Finance Facility (Green Bank)	

3.3.1 The Farm Income Enhancement and Forest Conservation Project (FIEFOC-Phase 1 and 2) - Uganda

The overall goal was to contribute to poverty reduction and economic growth in Uganda through enhanced productivity and commercialization of agriculture. The specific objectives for the two phases were to improve household incomes, rural livelihoods and food security, through (i) increased agricultural production, (ii) agricultural diversification, and (iii) expanding non-farm employment while at the same time improving natural resources management by rehabilitating degraded water catchments areas. It had two phases predominantly financed by combined grant and debt financing instruments.

- 1st Phase (2006 – 2012): 56.63 million (AfBD Loan UA 41.19Million, Nordic Development Fund (co-financing) Grant UA 4.11Million and Government counterpart funding UA 11.23) UA - Unit of Account.
- 2nd Phase (2016 -2021): FIEFOC Phase 2: Total cost was USD 91.7million (Nordic Development Fund (USD 5.9 million or EUR 5.25 million), the AfDB (USD 76.7 million), and the Government of Uganda (USD 9.1 million).

The main beneficiaries were 50,465 Water Management groups, farmers, schools and local communities; Beekeepers; Irrigation Water Users Associations and Farmers; 13 municipalities, 22176 schools, 35 students, 33 districts. The project promoted tree planting and community watershed management practices, rehabilitation of degraded watersheds, Non-Timber Forest Products (NTFPs) and development of forest management plans.

In terms of delivery mechanism, the MWE was the project's executing agency, responsible for implementation of irrigation infrastructure and related activities under component one and the natural resources management activities under component three. Meanwhile Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) was a key implementing partner responsible for implementing agronomic and extension related activities and the agri-business development. Multi-sectoral Project Steering Committee; National Project Coordination Unit; Chief Administrative Officers overseeing the administrative aspects, and Private Sector were the main technical service drivers. To access finances, beneficiaries must be living in target degraded lands and were willing to adopt agro-forestry, conservation farming and agribusiness.

Under the project:

- 78,295.6ha (33,000 ha of forest plantations and community tree farmers 45,295.6 ha) were established in Phase 1. MWE and MAAIF developed strong partnership with District Local governments. It enhanced business and enterprise skills; strengthened linkages of projects to existing District and Subcounty management and administrative infrastructure.
- FIEFOC 2 supported the development of five new small- and medium-scale agricultural irrigation schemes in districts across Uganda. The project resulted in a total of 3,060 hectares of new irrigated area, with specific schemes like Tochi (500ha), Mubuku II (480ha), Doho II (1,200ha), and Ngenge (880ha) contributing to this. There was also increased water storage capacity, with Tochi scheme adding 10.72 million m³, Ngenge 270,000 m³, and Mubuku II 150,000 m³.
- Beneficiaries from various irrigations schemes formed co-operatives, farmers associations and other interest groups.
- It strengthened inter-institutional collaboration and coordination.

3.3.2 Commercial banks and UTG – SACCO forestry sector financing

The number of Financial Institutions (FIs) involved in funding forestry is growing. However, the situation of lending for forestry would have been much better than now had the sub-sector institutions created enough awareness at policy level and at operational level among FIs. Many of the FIs (e.g., I & M Bank and Absa Banks) deal with borrowers with collateral like long term permits in CFRs, and other marketable securities. The FIs insist on other marketable securities beyond permits held by borrowers because the permits being held on CFRs are not transferrable. There are a number of factors explain the increasing interest of the FIs, Micro Finance Institutions (MFIs) and SACCOs in lending to forestry. They are:

- i. The maturing stock of plantations from SPGS, FIEFOC and other programmes can now be turned into liquidity for FIs in short to medium term and that reduces the lenders providing debt as part of the financing portfolio.
- ii. Owing to big scale by some planters, it is making business sense for some banks to extend to them debt for long period (even up to 15 years, with 3 years of grace period).
- iii. Financial institutions have gained some experience in appraising risky investments from their partnering with Bank of Uganda (BOU) to lend to agriculture under Agriculture Credit Facility and under Agricultural Insurance Scheme.
- iv. The increasing availability of financing opportunities under the flagship 'green and climate finance' from within and outside Uganda is driving FIs to adapt so that they do not miss out on these forms of financing (e.g., UDB has established a climate financing facility -to which FIs can access funding for their borrowers).

While FIs, MFIs and SACCOs are coming on board to lend to plantation forestry, there are variations in their approaches mainly because they are guided by different organizational policies and philosophies. For example, all of them consider loans overdue by 90 days as bad loans based on the standards set by BOU. This factor alone creates a barrier for forestry plantation financing and as a consequence, FIs would prefer lending to faster and more secure paying investments in their lending portfolio (e.g., crops, milk, trade, housing mortgages, treasury bills, government stocks).

Opportunity Bank which follows a Christian companion philosophy has integrated a component for food security as it lends to those in agro-forestry enterprises. It has also extended loans for school fees knowing that in failure to do so, the farmers could cut their trees prematurely to pay school fees.

Limited financial support from Commercial Banks and other Financial Institutions (because of the long-term nature of the business and risks associated), was a key driver to formation of UTG-SACCO in 2010 by a team of 35 Members. With a membership of over 110 tree planters' members now, UT_SACCO's mission is "to be the preferred financial services institution in the forestry sector and transform lives for a better Uganda⁴²." Its capital base has reached UGX 1.00 billion. It still can only offer Short Term Loans to its members Payable in maximum 12 months of up to UGX 30,000,000 depending on one's shares and savings. UTG- SACCO has never borrowed as a SACCO. Neither has it ever set the maximum borrowing liability, arguing that they have never found the need to borrow. This may be because most of the members were beneficiaries of alternative and more attractive financing instrument, the grant

⁴² <https://utg-sacco.org/>

subsidy from SPGS. UTG-SACCO has been able to support its willing members to form the Woodmill Company Limited for value addition to member's plantation stock. The Company is described later in this report.

The FIs could have played a bigger role in lending to tree planters if government helped out to create enabling environment by stopping encroachment in CFRs where some of the borrowers have their plantations. Enabling environment could also be improved further by consistent government policies (e.g., avoiding sudden policy shifts such as 2023 ban on timber exports); developing a positive and affirmative approach to say, creating a line of credit or special purpose vehicle for plantation forestry development in its own right just as it has done for agriculture under ACF, insurance under AIS and industrial development under Industrial Transformation and Employment (INVITE). All these three financing windows (i.e., ACF, AIS, INVITE) have excluded tree planting.

In a case study among the tree nursery operators, the study found that some have borrowed in circumstances where they have formal MOUs with planters assuring that they would buy their seedlings or where they have a growing market in the hinterland for their different species from institutions like schools and from households. In one nursery of Kasese Tree Growers and Timber Traders Cooperative Society Ltd, the study found that they have raised 450,000 seedlings this rain season to be bought by World Wide Fund for Nature (WWF) for distribution in both Kasese and Bunyangabo districts (see Figure 14). They raise pine, podocarp, muvule, musizi, grandis, mahogany and eucalyptus. Before establishing the nursery, the district and its funders used to buy seedlings and transport them to Kasese from NFA's Tree Seed Centre in Namanve, a distance of 390 kilometers. The seedlings would lose their quality in the process. The current contractual arrangement between the WWF and the Cooperative has been used as a basis for the Cooperative to borrow for one year period and it has had five similar undertakings in the past, whose revenue they have used to buy land for expansion. A key member of the Cooperative at the nursery had this to say:

"We would not have expanded our tree nursery to the level you have seen without an assured market. There are no more grants forthcoming these days".

Asked as to what the cooperative Society will do after saturating the market, the leaders submitted that they would market/trade as a cooperative since they can mill their timber using a wood miller and accessories given to them by WWF. They also look to plantation establishment as a going concern, with possibility of changes in the choice of species by the market and technologies for value addition. Importantly, they also submitted that Kasese has high scale of environmental degradation due to increasing population. With its fragile mountainous area, Kasese is very vulnerable to flooding. However, the leaders see a missed opportunity because of failure by government to make the seven power stations operating upstream to pay to conserve the degraded mountain. If government enforced the policy provisions on PES, it would add another income stream for the cooperative in supplying the necessary seedlings and agroforestry species for household in Rwenzori ranges and along the rivers. Uganda can learn from the model of PES in Costa Rica. Similar cooperatives to that in Kasese District have been formed in Rubirizi, Mitoma, Rukungiri and Kisoro Districts.



Figure 13: Tree nursery of Kasese Tree Growers and Timber Traders Cooperative Society Ltd

The experiences of nursery operators are shown in Box 3.

Box 3. Experience of certified nursery operators in borrowing

Most of the nursery operators went into the nursery establishment for perceived actual or anticipated income as there was a growing need for high quality seedlings in their communities. SPGS and FIEFOC projects helped to support many of them at the beginning through training, provision of tools and even seeds. They also certified them to ensure they raised quality seedlings which the projects would recommend for the planters. Half of the operators chose to do it as individuals or family in order to have control over the business or to avoid bad experience of working in partnerships with others. Those who chose to do it formally under registered arrangements thought they would be more visible and credible in the market than when they operated as individuals or family. The nursery operators have taken on different species mainly to respond to their clients' needs. The species include eucalyptus clones, pines, fruit trees, fodder trees and trees suitable for fuel. A number of factors explain why they still operate and/ or would want to continue. They are:

- Formal linkage (under MOU or agreements) with timber growers, which assures them of the market.
- Certification (with UTGA, FAO and FIEFOC) gave them positive reputation within the market.
- Financing using personal savings from nursery operations and other sources e.g. salary.
- Financing (grants) from SPGS which supplemented savings but it was not given consistently.
- Financing (loans from banks and SACCOs) which though available, requires meeting a lot of requirements.
- Increasing awareness to plant trees as one of the coping mechanisms to fight climate change.

While the financing opportunities may be available, the operators listed a number of barriers which restrict the expansion and growth of their enterprises. Key among them are:

- Lenders do not have good understanding of the intricacies of nursery establishment, a factor that causes them to arbitrary slash the amount applied for.
- The requirements for collateral and lengthy paperwork are also barriers.
- High interest rates.
- Competition from civil servants working as district officers and sometimes using public funds.
- Corruption in tenders for supply of tree seedlings among government and NGO offices.

Nonetheless, the tree nursery operators also accept that they would go an extra mile to expand their businesses if for example, they developed skills in nursery planning, operation and marketing; ensured quality control; trained and motivated workers and above all, got trained in basic record keeping, costing and financial (business) planning.

Finally, one of the barriers FIs are finding among small and medium groups tree growers and traders is that they have poor understanding about the implications of their choice of business entity for borrowing. Some of the planters have grouped to qualify to get assistance/support in conformity with donors/lenders conditions. Some do not know what it takes in terms of preparedness when they want to borrow to repay as compared to when they remain as recipients of grants. Their liability obligations when operating as a company by guarantee, a company by shares, a cooperative, a partnership, a trust and the liabilities of individuals organized in these formal structures differ and these form part of appraisal by any bank.

The main lessons from the experience of FIs lending to forestry-sub sector are that:

- i. The provision of grant subsidy under SPGS has become catalytic in creating entry for the providers of debt into the some of the interventions in the forestry industry value chain.
- ii. It is very opportune for the government to build upon the FI and SACCOS growing interest to finance forestry interventions building from their experiences of lending to agriculture under other arrangements like the Agricultural Credit Facility, Agricultural Insurance Scheme, Abi Finance etc.
- iii. With increased appreciation of forests for providing ecosystems services (e.g. protection of flooding and curbing soil erosion), it may be appropriate to take the financing for plantation forestry development with that of conservation of forests for other benefits because it may be the same players who actually get involved on the ground both from the supply and demand sides of financing
- iv. In as much as FIs and SACCOS have come on board to lend for forestry, they have varying comparative advantages based on their policies, philosophies, and capacity and because of that they could all continue to play a part because even the market of planters and players in the value chain is very segmented -the small, the medium and the large.

3.3.3 Lessons from other non-forestry sector financing

3.3.3.1 aBi Finance

aBi Finance was established by Government of Denmark and Government of Uganda in 2010 initially as a Trust but later transitioned into a Company Limited by Shares, the latter being more suited to attract debt also in its capitalization portfolio than the former. The Investment Fund for Developing Countries (IFU) and the European Union (EU) are now also shareholders. IFU invests in financially viable companies,

contributing to green transition as well as economic and social development. Investments by IFU are made on commercial terms in the form of equity and loans⁴³. aBi Finance is overseen by a Board representing the capitalizing institutions. ABi Finance as a wholesale impact investment company supports the value chain of coffee, cereals, pulses, oilseeds, horticulture, dairy, and poultry. Agroforestry can be a component of these value chains, particularly in areas like coffee production, where integrating trees with coffee can improve soil health and diversify income.

In terms of financing, aBi Finance is a wholesale impact investment company deploying funds to promote wealth creation, employment and economic growth for smallholder farmers and agribusinesses. In partnership with financial services sector actors, aBi Finance deploys a blend of lines of credit to financial institutions, guarantees, and grants to strengthen their capacity to offer credit to smallholder farmers and agribusinesses. This has been able to unlock private capital where financial institutions would have faced a lot of risk or feared to invest altogether.

In terms of achievements, the success rate is high at 85%⁴⁴. aBi Finance interventions are aligned with Environmental-Social-Governance (ESG) principles to achieve triple bottom-line sustainability that is inclusive of People, Planet and Profits. The **main lessons** from this case are that:

- i. GOU partnered with the government of Denmark to establish a trust for financing small holder farmers outside the usually preferred budget support that the GOU would have preferred.
- ii. Both GOU and the government of Denmark had to accept to transit from a trust as delivery mechanisms to a company limited by shares to be able to attract the type of financing (that includes a commercial components) from IFU.
- iii. aBi Finance acts as a pool under which different financial instruments (grants, loans and guarantees) are blended to make the package of financing to smallholder farmers and agribusiness affordable.
- iv. The alignment of aBi Finance with ESG is strategic, to position it to be eligible to funders who have signed up to make their contributions for a net-zero carbon world.
- v. With commitment, government can start small with one strategic donor or philanthropic for forestry financing and over time recruit other funders along the way, just as it did under aBi Finance.

3.3.3.2 Uganda Energy Credit Capitalization Company (UECCC)

Uganda has also exercised flexibility to work outside the budget support type of funding to attract financing for energy in Uganda as borne out by formation of UECCC⁴⁵. In 1999, GOU adopted a strategic approach to reform the energy sector in order to attract investment into the sector both in generation and distribution. One of the key features of the strategy was the introduction of private sector participation both in existing operations as well as financing and management of future investments.

However, the private sector was facing a number of barriers including lack of appropriate financing (long term debt and concession of financing) in the local market; lack of early-stage financing and technical assistance to unlock energy project and lack of technical capacity on part of local financial institutions to finance energy projects. The forestry sub-sector is much faced with similar barriers.

⁴³ <https://www.ifu.dk/en/about-ifu/>

⁴⁴ <https://abi.co.ug/finance/about-abi-finance/>

⁴⁵ <https://www.ueccc.or.ug/>

To address the above barriers, GOU set up UECCC as a credit support institution and as a company limited by Guarantee, with shareholders being Ministry of Finance, Planning and Economic Development (MFPED), Ministry of Energy and Mineral Development (MEMD) and Private Sector Foundation Uganda (PSFU). The objective of UECCC is to provide financial, technical and other support for Renewable energy projects. UECCC is the administrator of the Uganda Energy Capitalization Trust (“The Trust”) which is a framework for pooling resources from Government and DPs for the development of renewable energy projects. The government uses the Company’s limited public resources to leverage and unlock private sector participation in the financing of Renewable Energy Projects and Access programs. UECCC’s funding partners include the World Bank and Kingdom of Netherlands. Its implementing partners are Commercial banks (Stanbic, Centenary, Finance Trust, Absa, Opportunity Bank, Post Bank and Equity) and MFIs and SACCOs. UECCC is steered by a Board that includes representatives from the organizations like Uganda Investment Authority, Uganda Bankers Association among others. At the end of 2024, UECCC launched the Price Subsidy Program (Results- Based Financing Facility) for Clean Energy Technologies. The study has established that EU will collaborate with UECCC under the recently launched Forest Management and Sustainable Charcoal Value Chain project that is also described in this section.

The **main lessons** from this case study are that:

- i. Like aBi Finance, the government exercised flexibility to allow the formation of UECCC to incentivize the type of finance providers (i.e., development partners and Financial Institutions) who would not have found under the budget support as the best mode for mobilizing and unlocking private capital.
- ii. UECCC has brought on board financial institutions and SACCOs in rural areas to lend to the sector that has inherent high startup costs and risks similar to plantation forestry development.
- iii. The government’s commitment is reflected in it allowing its three technical institutions to be shareholders in UECCC, that is, MFPED, MEND and PSFU.
- iv. By bringing on board the private sector which has now gained experience and sees a lot of business opportunities, UECCC has gone a step further to introduce performance-based-financing.
- v. With commitment, the government can partner with willing development partners to pool resources for plantation forestry development using a trust or a company limited by shares as it did in Abi and UECCC

3.3.3.3 Microfinance Support Centre

The Microfinance Support Centre (MSC) is also a government owned company established in 2001 to manage all GOU micro-credit programs. The MSC seeks to act as a lynchpin of the government for delivery of Rural Financial Services (RFS)⁴⁶. It also facilitates access to affordable, sustainable and convenient financial and business development services to active and productive Ugandans. Provision of loans to institutions is the key role for MSC. Financial services are extended to the rural poor through wholesale and retail loans to MFIs and other partner organizations for the purpose of on-lending to their clients or own use. The loans are given to legal entities. The institutions specifically targeted for the loans are; SACCOs, Area Co-operative Enterprises (ACEs), MFIs, Co-operative Unions, Producer and Marketing Co-operatives and Small and Medium Enterprises (SMEs). The MSC created twelve (12) zonal offices in

⁴⁶ <https://finance.go.ug/sites/default/files/archive-files/Publications/BMAU%20Briefing%20Paper%2010-14%20-Microfinance%20Support%20Centre%E2%80%99s%20provision%20of%20Institutional%20loans.%20Why%20is%20uptake%20declining.pdf>

order to provide a fair distribution of services throughout the country. The robust intermediary delivery model of MFC is shown in Figure 15.

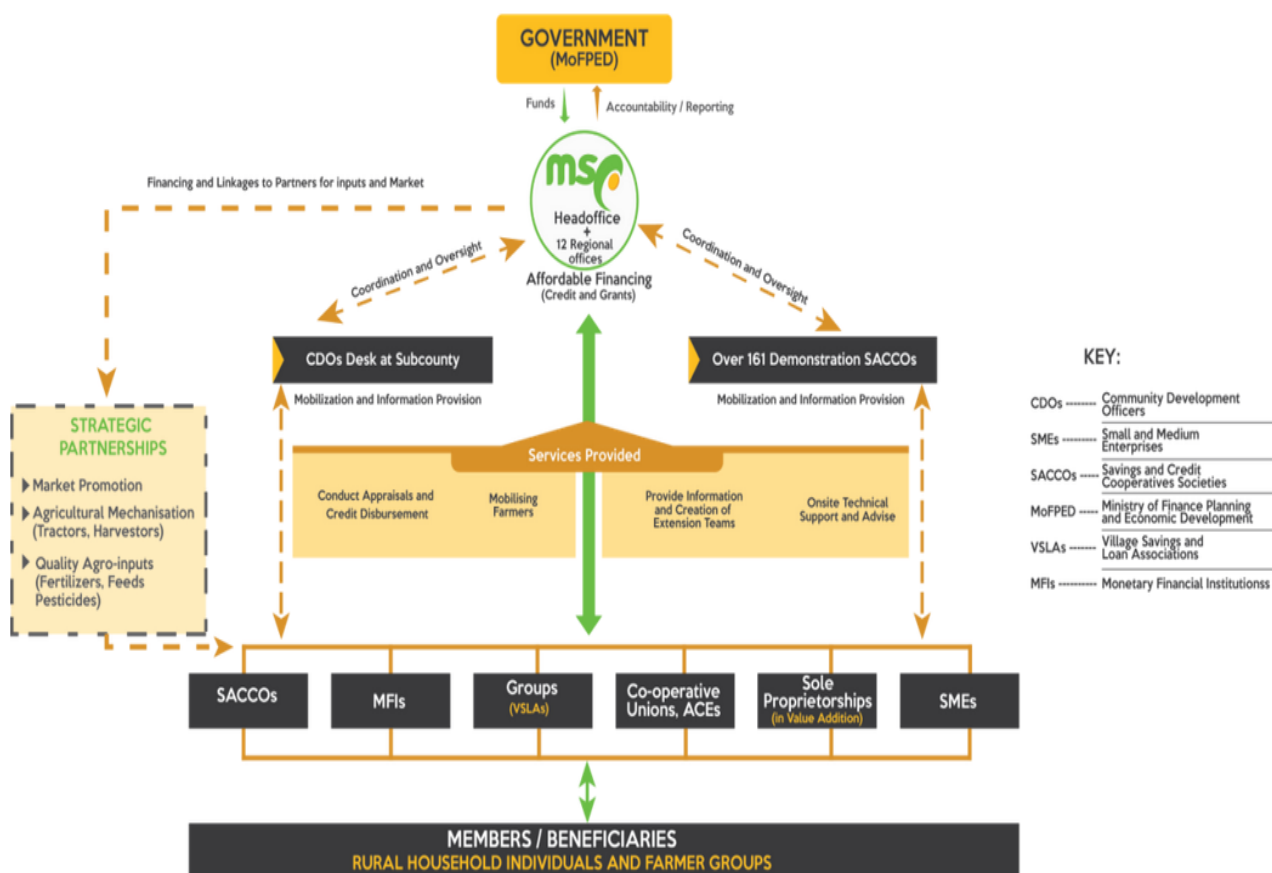


Figure 14: Micro-finance Centre delivery model

The MSC has also provided **Environmental Loans** to support environmental and clean energy products i.e. Production of solar, biogas and energy savings stoves, and agro-forestry. It has also extended SME Loans targeting businesses with a minimum annual sales turnover of UGX 50 million for agricultural related SMEs and UGX 70 million for non-agricultural related SMEs.

The challenge the MSC faces is that many MFIs and SACCOs it finances borrow from different other institutions. This leads to a high portfolio risk at the MSC due to a higher default rate by the clients. Despite the risks, the practice of government using SACCOs for many of its programmes is widespread. The examples are:

- i. *Parish Development Model*: This is a multi-sectoral strategy to improve incomes and welfare of Ugandans closer to them, and it will support among others these tree type crops coffee, avocado, cashew nuts, cocoa⁴⁷.
- ii. *Emyooga*: This is a *Presidential Initiative* on Wealth Creation launched in 2019 as a broader strategy to transform 68% households from subsistence to market-oriented production with

⁴⁷ <https://www.kamuli.go.ug/sites/files/The%20Parish%20Development%20Model%20-%20Revised%20Simplified%20Guide-April%202022.pdf>

objective of promoting job creation and household income. It will offer technical assistance and financial support through MSC to 18 categories of enterprises including carpentry⁴⁸.

The following lessons from this case study inform sustainable financing for plantation forestry:

- i. In the Microfinance Support Centre, the government saw and created a niche for the Centre to reach out to the small and micro players who constitute the majority in the country.
- ii. With 12 regional offices, the Centre has developed infrastructure to reach out to the countryside.
- iii. MSC works with and through FIs, MFIs, and SACCOs for both wholesale and retail loan products, a factor that reduces its transaction costs of reaching its market segment.
- iv. Despite the default rates in MSC, the government still finds it filling a gap which the commercial banks have failed to offer (i.e. affordable finance).
- v. The MSC is supporting groups involved in carpentry, among others.

3.3.3.4 GROW Project

The government is implementing the Generating Growth Opportunities and Productivity for Women Enterprises (GROW) Project, funded by the World Bank, and implemented by the Ministry of Gender, Labour and Social Development and the Private Sector Foundation Uganda in all districts, Municipalities and Cities⁴⁹. It aims at increasing access to Entrepreneurial Services that enable female Entrepreneurs to grow their Enterprises from micro to small and small to medium in targeted locations, including the Refugee host districts under *Access to Finance for Women Entrepreneurs Component*. This component addresses the key constraint of access to larger scale finance for women entrepreneurs to expand their businesses. The services/ products offered are (i) Business expansion grants through competitions and (ii) GROW loans through participating in Financial Institutions, Micro finance institutions and SACCOs. There are only five FIs that have agreed to co-finance under the GROW project, namely: Post Bank, Finance Trust Bank, Centenary Bank, Equity and DFCU.

Under the project, UGX 4-5 million is allowed as unsecured loans for registered group members in a fully registered group. The fear that some of the registered groups may not pay has made many FIs hesitate to come on board at a time when they are also under pressure to increase their capitalization levels by BOU. Further, under GROW project maximum loan period for the unsecured loans is 8 months.

Further, UGX 5 million to 200 million can be given under the project to individuals or entities in which women are the majority shareholders. The maximum loan period is two years, and requirements are collateral and two guarantors. All loans interest is 9.2% on reducing balance and there is requirement for 0.8% loan insurance fees. Compared to the high number of FIs participating under ACF (i.e. 18 FIs out of 25 in the country), there are only 5 under GROW because they are not well cushioned with government guarantees should groups which receive unsecured loans fail to pay. The low period of 24 months may favor those in agro-processing and trade but not in growing. In one of the key interviews, a respondent managing a portfolio including forestry under PSFU gave the following statement:

⁴⁸<https://www.msc.co.ug/emyooga/>

⁴⁹ <https://grow.go.ug/>

“Bank of Uganda deems loan not repaid within 90% as non-performing loan. Under GROW project, financing to forestry is excluded. Further, although Bank of Uganda’s INVITE⁵⁰ project’s loan has a 15-year period for borrowers in agricultural exports, it does not include timber exports. Advocacy is needed to have timber included in INVITE. Government should also gazette loans for plantation forest development”

There are **a number of lessons** from GROW project, namely:

- i. It has not attracted many FIs to participate like under the ACF arguably by some respondents that it would be risky to lend UGX 4-5 million as unsecured loans to registered groups.
- ii. Like in other financing models described above and despite variations among them, government’s strategy of working with and through FIs, MFI, SACCOs is still widespread and these could also increase their financing to forestry if the shortcomings are systematically addressed.
- iii. The omission of financing window for plantation forestry among the financing mechanisms/models confirms a very big gap for the development of the country’s forestry sub-sector.

3.3.3.5 Uganda Agricultural Credit Facility, administered by Bank of Uganda

Uganda also has lessons to pick from the Agricultural Credit Facility (ACF), a partnership for pooling resources for on-lending to the agriculture sector established by the government in 2009 and administered by the Bank of Uganda. The main objective of ACF is to commercialize agriculture through provision of medium- and long-term financing for projects engaged in agriculture, agro processing, and modernization focusing mainly on value addition. ACF does not allow ineligible purchases/use by borrowers (e.g. purchase of land, planting of trees and trading). The government provides grants to de-risk banks co-fund and banks provide loans. These banks included Uganda Development Bank, Micro-finance institutions (MFIs) and other Credit Institutions.

In terms of delivery, the ACF is administered by the BOU and has a revolving pool of loanable funds amounting to US\$ 60 billion. The GOU is contributing US\$ 30 billion (50% risk cover as grant) while the Partnering Financial Institutions (PFIs) cover the other US\$ 30 billion⁵¹ provided as low-cost loans because of the blending strategy in the use of combined GOU’s grants and FIs’ debt. The facility has had four phases since 2009, with the contributions remaining equal for the three out four phases as shown in Figure 16.

⁵⁰ INVITE is the Investment for Industrial Transformation and Employment project and as a collaboration between the Ugandan government, private sector, and development partners, partially implemented by the Bank of Uganda through the INVITE Trust and with the Bank working along with the Ministry of Finance, Planning and Economic Development, and the Private Sector Foundation Uganda (PSFU). It is supporting manufacturing and export firms.

⁵¹ <https://www.finance.go.ug/sites/default/files/archive-files/Publications/BMAU%20Briefing%20Paper%2011-13-%20The%20Agriculture%20Credit%20Facility.%20What%20is%20constraining%20its%20effective%20implementation.pdf>

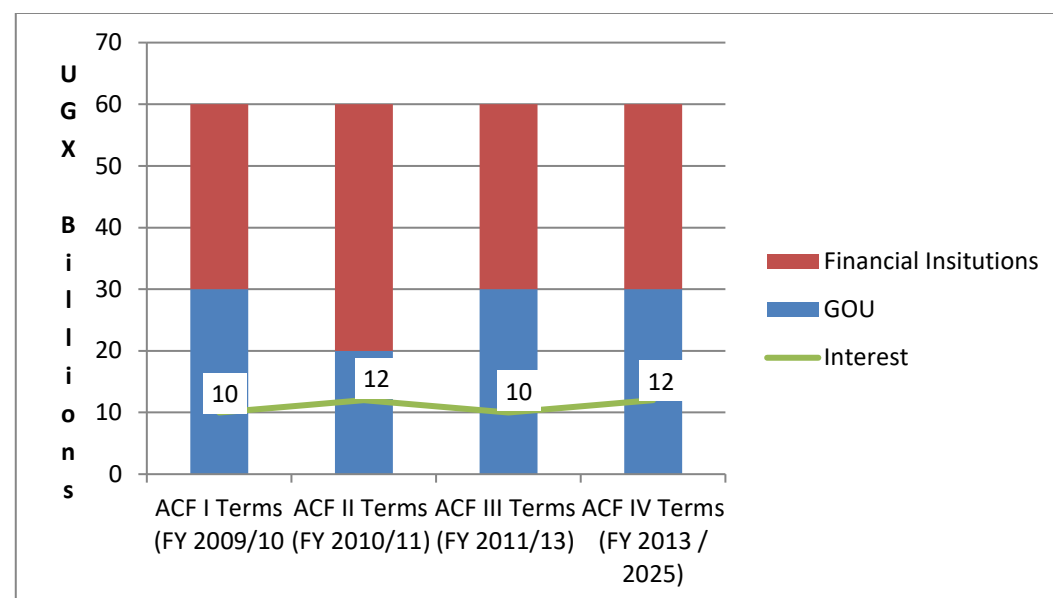


Figure 15: Blended financing by GOU and Financial Institutions and interest rate under ACF, 2009-2015

The terms and conditions include:

- Loan amount: Maximum UGX 2.1 billion but can reach UGX 5 billion for good performing customers.
- Loan period: Maximum loan period should not exceed 8 years and minimum is 6 months.
- Grace period: The grace period is up to 3 years.
- Interest rate: Maximum is 12% by PFIs. The GOU contribution is disbursed to the PFIs interest free.
- Eligible fees. Facility fees charged by PFIs to borrowers should not exceed 0.5 % of the total loan given.

In terms of achievements, the GOU played a catalytic role through BOU to incentive the FIs, MFIs and UDB for joint venture into agricultural financing which would not have been widespread if it had been left to either government or FIs alone. The FIs have now gained capacity and experience to lend to agricultural sector even without government guarantees in some cases. 18 out of 25 FIs in the country are now participating. Development Partners too have come on board with guarantee packages to support FIs to lend to agriculture high risk areas. The GOU in partnership with insurance companies have also established an agricultural insurance scheme to provide premium subsidy to farmers and the scheme mitigates the risk of FIs lending to the risky areas in agriculture.

While BOU communicated to the study team that it wouldn't be in position to administer similar facility for plantation forestry, the main lesson is that the government can still consider establishing a plantation forestry financing facility/ scheme in similar manner as the ACF and administer it thorough other existing institutions. The alternatives can be UDB or as an extra-budgetary fund administered by the MFPED or as a trust (e.g., aBi) or a company limited by shares (e.g. UECCC).

The key lessons are:

- The government made it flexible and attractive for Financial Institutions to co-finance agriculture by de-risking their loans.

- ii. Both governments and financial institutions used ACF to learn together and to make adjustments along the four phases of pooling resources in a blended fashion.
- iii. The ACF became a platform under which the interest free financing by government mobilized the FIs' commercial interest rate debt were blended, a factor that enabled the FIs to ultimately lend at lower interest rates of 10%-12% since ACF was established.

3.3.3.6 Uganda Agriculture Insurance Scheme (UAIS)

Government of Uganda also established the Uganda Agriculture Insurance Scheme (UAIS) in FY2016/17⁵², as a Public-Private Partnership (PPP) between the Government of Uganda represented by the MFPED and the private sector. Uganda Insurers Association is the private partner implementer of the scheme through the Agro Consortium, a coalition of currently 13 insurance companies licensed to underwrite agriculture insurance in Uganda⁵³. The objective of the scheme is to cushion farmers from risks associated with losses arising from natural disasters; and also attract financing to agriculture. Agriculture Insurance encourages commercial banks to lend to the agriculture sector given the risk associated with agriculture. The risk is mitigated through appropriate insurance cover, which thus improves access to agriculture loans. It therefore de-risks the agricultural loans.

The scheme provides Insurance cover for crops and livestock, for both small and large-scale farmers. Under the scheme, the government provides premium subsidy funds in collaboration with industry players. The government pays 30% of the basic premium for large-scale farmers and 50% for small-scale farmers. The Insurance Regulatory Authority of Uganda (IRA) provides the regulatory oversight and quality control, Bank of Uganda (BoU) on the other hand manages the drawdown on UAIS Account, while the Monitoring and Evaluation of the Scheme is done by the UAIS Technical Working Committee.

In terms of financing, the Government allocated UGX 5 billion (US\$1.4 million) to subsidize agricultural insurance for farmers at 30-80 per cent of the cost of premiums depending on farm scale and location.

In terms of achievements, records show that whereas by December 2017, 45,704 farmers had taken up cover, the number has cumulatively grown to 687,608 farmers insured under the scheme as at end March 2023. Equally, the claims paid under the scheme have increased from Ugx.2.2 billion in 2017 to Ugx. 33.4 billion cumulatively by end of March 2023⁵⁴. These are big achievements.

In terms of key lessons, this scheme shows that with well-planned PPP, and government commitment, it became possible to unlock agriculture finance in Uganda⁵⁵ from the private sector by de-risking investments where the private sector would otherwise not have invested. This case can be modelled for de-risking plantation forestry in Uganda. Further, the case shows government commitment to cushion the small farmers in Uganda against the agricultural risk, and these small farmers are the majority in Uganda, typical also in forestry sub-sector.

⁵² <https://archive.finance.go.ug/content/agriculture-insurance>

⁵³ <https://aic.ug/about-us/>

⁵⁴ <https://ira.go.ug/you-can-profitably-invest-in-agriculture-with-insurance/>

⁵⁵ <https://openknowledge.worldbank.org/entities/publication/e13b8ae8-ec30-59b2-940f-13874a447152>

3.3.3.7 The Climate Finance Facility (Green Bank) under Uganda Development Bank

In a much broader picture (beyond financing plantation forestry), UDB recognises that the biggest risk to its socio-economic development is climate risk. Over 70% of Ugandans heavily dependent on small and medium enterprises (SMEs) for employment in the natural resources sector, these generally have low capacity to withstand financial shocks that come with the effects of climate change. The vulnerability of Uganda's population requires urgent need to adapt and maintain future economic growth opportunities by transitioning to a low carbon (green) economy. This will require massive investment in green technologies and this calls for a better alignment of the financial sector with policies and practices that support green growth.

Accordingly and in a wide measure, UDB together with its partners are committed to support the country realise its greenhouse gas emission reduction targets of 24.7% by 2030 by enhancing its efforts to mobilize green finance, increase access to credit, manage climate and environmental risks, and act as a financial intermediary through affordable green product⁵⁶.

In that context, UDB and its partners agreed to the formation of Climate Finance Facility (Green Bank) as a green financing vehicle specifically created to mobilize capital from both domestic and external sources targeting both private and public entities. The resources mobilized are directed towards low carbon and climate resilient investments. The Bank takes the lead in arranging and structuring deal transactions that can shape development of green innovations, technologies and markets. The idea is to build a strong pipeline of deal syndications, attract co-investments and demonstrate climate finance engineering solutions in the local context.

The Bank is striving to source for and attract non-repayable grants for blend financing with debt to reduce the risks associated with high start-up capital, high transaction costs and long maturity periods of green investments. The Bank has committed UGX 50 billion towards capitalization of the facility. This is expected to grow with support from various partners over time. The facility will provide opportunities along value chains and supply chains that target to combat climate change impacts through evidence-based and innovative climate smart technologies. Target initiatives will include Climate smart agriculture and agribusiness, low carbon industry and eco-tourism.

As an intermediary for the Climate Finance Facility, UDB will provide both financial and non-financial products, the former to include loans, equity, grants, guarantees and asset financing and the latter to include project preparation and financial structuring and green investment advisory (Table 9).

Table 9: Financial instruments under Climate Finance Facility (Green Bank) of Uganda Development Bank

Purpose	Key features	Details	Duration
1.Green loans	The Bank shall extend <u>medium, and long-term loans</u> to exclusively finance, in whole or in part, new and/or existing eligible green projects.	This product will be extended for establishment of a green investment, working capitalexpenditures, purchase of resource efficient equipment, overhaul of plant and machinery etc.	Tenure: 4-15 years inclusive of 3years grace period

⁵⁶ https://www.udbl.co.ug/wp-content/uploads/2025/04/UDB-CFF-Brochure_14042023.pdf

2.Green Equity Financing	This product is to address risks associated with start-ups, application of climate technologies, and difficulties underwriting green projects under multiple revenue streams. The idea is to develop sustainable markets for green products and services.	The equity investments should seek to promote <u>environmental sustainability and reduce ecological footprint of intended beneficiaries.</u>	UDB shall hold equity for a period of at least 10 years and provide leverage to attract co-investments.
3.Green Asset Financing	The asset finance product allows green investments to access efficient machinery in terms of resource use without having to purchase the equipment upfront.	UDB shall aim to offer <u>medium to long term</u> asset financing to enable green businesses to have access to the latest green technologies	Tenure: 4-8 years inclusive of 3 years grace period depending on useable life
4.Green Trade Financing	This facility provides financing for purchase of <u>certified raw materials</u> for production of green finance products such as climate friendly packaging materials, <u>production of biomass substitutes</u> etc.	This product will target to bridge operational gaps for traders investing in green products through a sustainable supply and demand model (circular economy model).	Revolving in nature with repayment cycles up to 120 days
5.Credit Guarantees	This product targets to unlock green investments <u>that suffer constraints of lack of collateral, high credit risk, and high start-up costs.</u>	The aim is to enhance the credit worthiness of green investments and mitigate structural barriers such as contractors seeking <u>performance or advance payments.</u>	Guarantee coverage ratios, the pricing of guarantees, credit guarantee tenors, & grace periods to be determined according to respective projects.
6.Grants	The Bank shall offer grants to allow developers acquire efficient technology to grow and scale up their activities. This facility will contain some amount of concessional finance which will be blended with market-based finance	The grants shall aim at supporting project <u>feasibility, market studies, regulatory frameworks, and market development standards and certifications</u>	Payments are made in <u>several agreed instalments</u> during the duration of the loan period. For sustainability of the interventions, the grants will be attached to debt

The **main lessons** from the climate Facility (Green Bank) are that:

- i. The government created the facility as a special purpose vehicle under UDB without having to establish a parallel institution, implying that with commitment, it can also establish one for forestry financing.
- ii. The facility will blend public and private financing instruments mobilized domestically including from government and from the private sector locally and globally.
- iii. The facility will offer a broad menu of financial instruments from which borrowers can select.

- iv. Facility design underscores the importance of maintaining an enabling environment in terms of policy, strategy, guidelines monitoring indicators.

3.3.4 Finland's grants and debt model of financing forestry⁵⁷

The study picked lessons from countries outside Africa which have used grants and debt for very long time to finance plantation forestry and other forestry investments. One of such countries is Finland. Measured by the proportion of forest land, Finland is the most forested country in Europe. In past decades, forest growth has clearly exceeded harvesting volumes, which means that Finland's forest resources keep increasing. Forests cover more than 70 per cent of the land area. A total of 20.3 million hectares is available for timber production, 61% of which is privately owned.⁵⁸ Like in other western European countries, Finnish forests are mostly owned by **private individuals and families**. **Three quarters of all timber comes from private forests, owned by 440,000, mostly small forest owners**, each of whom has an average of 36 hectares of forest. To keep forest certification from being too expensive for small forest owners, the country uses a **system of 'regional certification'**. Entire regions are certified as having sustainable management, rather than individual owners⁵⁹. This reduces the costs of certification that individuals would have to meet. In terms of organization, Finland has many players organized in cooperatives.

From forestry financing point of view, Finland is one of the unique countries in that it has enacted laws for forestry financing e.g. Act on the Financing of Sustainable Forestry 1996, and subsequent amendments, that is Temporary Act on Financing of sustainable forestry 34/2015 and Temporary Act on the financing of sustainable forestry 34/2025. This Act provides for forest management work in private forests, for which it is possible to receive state support. The support may be granted to private landowners indicated in the Act for measures to ensure the sustainability of timber production and forest biodiversity. In addition, the support can be granted to forest nature management projects, dealing with, for example, management and restoration work of landscapes and habitats of special importance.

The financing support is given to private landowners in form of aid and loans using the annual appropriations included in the State budget. Aid granted for one project per beneficiary shall not exceed EUR 200,000. However, the maximum amount of aid for a forest nature management project is EUR 400,000. The beneficiaries of aid and debt are private landowners. The conditions to be met are a management plan and statement of No cause of devastations of forest. Finland pays 100 million Euros annually to its forest sector (FERN, 2024)⁶⁰.

In terms of the delivery mechanism, the Ministry of Agriculture and Forestry directs the use of financial support. The project-specific support is determined by the type of work and the location of the forest. The support is taxable and is applied for from the Finnish Forest Centre. The Finnish Forest Centre is a state-funded organization covering the whole country. Its main tasks include promoting forestry and related livelihoods, advising landowners on how to care for and benefit from their forests and the ecosystems therein, collecting and sharing data related to Finland's forests and enforcing forestry legislation⁶¹. The

⁵⁷ <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC011643/>

⁵⁸ <https://www.metsa.fi/en/responsible-business/metsahallitus-forestry/forestry-in-finland/>

⁵⁹ <https://forestsnews.cifor.org/320/how-finland-made-forest-owners-follow-the-law?fnl=en>

⁶⁰ Fern 2024, Financing Continuous Cover Forestry: Case Studies from Finland, France, Ireland and Latvia (https://www.fern.org/fileadmin/uploads/fern/Documents/2024/Fern_Financing_continuous_cover_forestry.pdf)

⁶¹ <https://mmm.fi/en/forests/forest-governance>

Center also has responsibility for saving the aid and loan given by landowners to the Land Information System. This registry is thus a control to know who has received support on one hand and knowing the geographical location whether the support was targeted on the other hand.

The main lessons from Finland's case are that:

- i. Government's commitment to sustainable forest financing (with its peculiarities and risks and recognizing that forests exist on private land) is demonstrated by an Act for financing stating who qualifies, for what, and under what performance measures.
- ii. Tools such as a land management registry to integrate aid and loans given to planters eases monitoring, reporting and verification of beneficiaries.
- iii. A strong evaluation and follow up institution (Finnish Forest Centre) are essential for ensuring that the beneficiaries of aid and loan comply with their forest management plans on whose basis they are supported.
- iv. Finland's commitment to financing forestry is demonstrated by annual appropriations from the state budgets (with which it gives aid and loan components).
- v. The sector follows standards strictly and forests are certified by region rather than individuals which spreads out costs for certification.

3.3.5 Performance-based Swedish model of financing forestry

Forests dominate the Swedish landscape, covering 27.9 million hectares, which is almost 70 percent of the land area. Some 75 per cent of the Swedish forest area is managed, typically to produce timber⁶². Sweden is a relatively small country but is the fourth largest exporter of sawn softwood, pulp, paper, and board in the world. Of the wood products made in Sweden about 20 percent is used domestically. The rest is exported, mainly to other European countries but also to most other parts of the world. The three largest export products from the Swedish forest sector are sawn softwood, pulp and paper, and board⁶³. **Sweden has more forest now than it did a century ago.** There is now twice as much wood in Sweden as there was 90 years ago. 1% of the forest is felled annually. Sweden has more than 30 000 private forest owners. Export value was SEK 167 billion in 2021, representing 6. 7% of Sweden's merchandise exports. In the Swedish model, the simple answer to the achievement is that Sweden grows more trees than it chops down. Today, this involves planting two to three new saplings for every tree that is felled.

The key enabler of the above model and its achievement is that **Swedish Forest Act of 1903** was the first in the world to require reforestation. Forest owners are free to manage their forests according to their own objectives, but in combination with the responsibility to ensure that there is sufficient new forest and to preserve and develop environmental values. Under current Swedish forestry law, production and environmental aims take equal precedence. This means that it is just as important that forests' environmental values are preserved and developed, as it is that forests provide high and value-adding wood production.

In terms of financing, subsidy schemes and tax reliefs as incentives are a widely used tool to steer future developments in the forest sector to support private sector owners. They can influence forest management decisions towards the implementation of desired policies, with a strong emphasis on maintaining a healthy

⁶² <https://www.forestindustries.se/forest-industry/forest-management/forestry/>

⁶³ <https://www.ksla.se/wp-content/uploads/2024/06/Forests-and-Forestry-in-Sweden-2024.pdf>

forest ecosystem for long-term profitability. This model is often referred to as the "Swedish forestry model. (FOREST EUROPE, 2020)⁶⁴.

The other success factor is that because Sweden follows very high-quality standards, its forest products are very well integrated into the market. The revenue generated from harvesting timber is used to reinvest in planting new trees and managing the forests sustainably. Large forest industry companies play a significant role in the Swedish forestry sector, contributing to research and development, and ensuring market demand for sustainably sourced timber.

Another big part of Sweden's forest success is the way its private sector is organized. The organization of the private sector within the forestry industry is both structured and influential. Forestry companies, owners, and stakeholders work collaboratively through associations and cooperatives, ensuring that they have a united voice when engaging with government on policy matters. This collective strength has made Sweden's wood industry to remain competitive globally while maintaining sustainability standards.

The **main lessons** from Sweden are that:

- i. Beyond having a focused Forest Act since 1903, the government commitment to offer aid and credit as well as incentives (i.e. subsidy and tax relief) from its national resources consistently for a very long time is very important.
- ii. The culture of planting two to three trees for every tree felled is unrivalled for Sweden.
- iii. The organizational capacity of private member associations and cooperatives, their collective bargaining strength and willingness to support research are very important enablers for the success of their forestry industry which Uganda can start to adopt.
- iv. Right from the start, and like Finland, Sweden took the plantation forestry development in tandem with protecting forests for environmental values with private farmers taking the lead.
- v. Importantly, Sweden brings out also the importance in maintaining high quality standards to penetrate and remain in the global market.
- vi. Good performance at the end of each contract of funding to tree planters triggers additional or new support for those wanting to expand and improve.

3.3.6 Multiple financing models for China's plantation development

In China, rapid economic development prior to 1980s led to exploitation of forest resources. In response, China took several forestry initiatives, including policy reforms. In 2007, it formulated the National Programme for addressing climate change and under it, it identified forest management as a priority activity to mitigate climate change. The objective of the programme was among others, to meet the increasing demand for timber and other products for economic and social development; increase forest cover; combat desertification; improve ecosystems, enhance biodiversity, and protect natural resources and reverse land degradation and soil erosion through the conversion of steep lands into forest and pasture.

In terms of financing, the government demonstrated commitment by allocating earmarked resources from the central to local governments accounting for 47% (RMB 225.923 billion) and on whose strength China mobilized additional financing instruments from other players, nationally and globally e.g. ; Private capital (companies and individual farmers) 28.21% (RMB 135.404 billion); Foreign loans and contributions

⁶⁴ <https://www.sciencedirect.com/science/article/pii/S1389934122001952#bb0140>

0.44% (RMB 2.13 billion): (a) loan and grant-in-aid from international institutions (b) loan and grant-in-aid from foreign governments and (c) business investment by foreign companies; and domestic loans and donations 14.56% (RMB 69.891 billion).

China also applied a *variety of incentives* especially in the non-state forest sector (e.g. collective forests, newly developed joint ventures, rural forest cooperatives, private forests) and *Subsidies* in the form of reduced interest rates, food, seeds and seedlings, and loans.

The above financial resources were used on a wide national scale for dealing with specific issues by location given the size of China. As a result, many hectares of land were planted with mixed species, those degraded were restored and some of the farmlands were converted to ecological forests. In 2018, China had the largest planted forest area in the world which accounted for almost 36% of the forest area⁶⁵ (80 million ha). In China, extensive tree planting has been coupled with *logging bans* in natural forests⁶⁶. In 2021, China's timber exports were valued at \$ 14.8 billion, making China rank the 5th Country in the world among the largest timber exporting counters⁶⁷.

It would have been difficult for China to take on widespread and diverse interventions had it not been for *very strong partnerships* both in raising financing and implementation. Partners included China Development Bank; China Agricultural Development Bank; International forestry cooperation (World Bank-Financed Forestry Projects and German Forestry Project; Chinese Academy of Forestry).

Further, some of the enablers for achievements in China were a robust policy and legal framework and the effective coherence of policies, legislation and institutional arrangements; a favourable macroeconomic environment; and highly competent professional human resource.

The **key lessons** from China are:

- i. With its commitment to use *earmarked resources*, China was able to unlock both public and private finance domestically and internationally.
- ii. In order to enforce command and control measures (i.e., a ban on logging in natural forests), China offered practical alternatives or carrots (i.e. grants, incentives, loans) for plantation development.
- iii. China also took its objectives for timber plantation development *alongside* the objectives for enhancing ecosystem services, biodiversity conservation and converting steep degraded hills into forests and pasture.
- iv. In a similar pattern, it mobilized different financing instruments to serve the above objectives so that their implementation went in tandem and complementary to contribute to the forestry policy programme.
- v. China's investment in forestry in general was very deliberate and transformative, guided by its forestry policy and investment programme.

3.3.7 Key lessons from debt and grant financing mechanisms

Summary of key messages and lessons on predominantly debt financing with grants and other incentive mechanisms are given in Box 4.

⁶⁵ <https://www.sciencedirect.com/science/article/abs/pii/S0924271624000339>

⁶⁶ <https://www.fao.org/4/ad524e/ad524e06.htm>

⁶⁷ <https://www.insidermonkey.com/blog/top-5-largest-timber-exporting-countries-in-the-world-1188004/>

Box 4. Summary of key messages and lessons from use of debt with grants and other incentive mechanisms

- i. The combined debt and grants (in addition to incentives and guarantees) have created flexibility both on the side of providers and users to use them for their contribution and participation in plantation forestry development.
- ii. GOU has shown flexibility in changing the forms of organisations it is a shareholder to in order to improve the enabling environment to attract types of financing which it would otherwise have not got without making adjustments (e.g. shifts from company by guarantee to company by shares, from trust to company by shares).
- iii. Lessons from Uganda's agricultural sector under ACF and UAIS have shown that by government committing grants and guarantees, it was able to incentivize financial institutions into PPP and in so doing the blended structure they created continue to unlock private capital from financial institutions and donors for agriculture and insurance.
- iv. In order to accommodate funders who have preferences for financing outside the budget support, the government exercised flexibility to form/use other institutions but in which it has interest and shares e.g. UDB, MSC.
- v. The lessons from Finland and Sweden bring out the need to have a long-term vision for forestry financing anchored in commitment to either provide appropriations from state government or earmarked revenue which in turn can be used to bring on board other public and private players domestically and globally.
- vi. While mobilizing sustainable financing is very urgent, it has come out from both national global experiences that it must be anchored in an enabling environment; enforcement of market standards; and strong institutions and systems for monitoring, reporting and verifying how the financial resources are utilized.
- vii. The coming on board by FIs, MFIs, and SACCO to finance forestry investments in recent years is an opportunity to be harnessed subject to making improvements where necessary (e.g. reducing default rates, building their capacity and training them to appraise forestry investments).
- viii. There are a lot of opportunities for financing plantation forests alongside conservation of ecosystem services mainly because on both supply and demand side, the actors who invest in them are the same.

3.4 Equity, debt and grants financing mechanisms

In this section, the analysis and lessons are built on the following case studies from the forestry subsector where equity was the primary financing instrument and debt, grants and other incentive mechanisms as secondary.

Table 10: Equity, debt and grants financing model case studies

Category	Uganda case studies	East Africa case studies	Africa case studies	Case studies outside Africa
Forestry sub-sector	1. Uganda Development Bank 2. Criterion Africa Partners 3. Forest Management and Sustainable Charcoal Value Chain project 4. Woodmill Company Ltd.	1. KOMAZA Company Ltd-Kenya 2. FMO and Finnfund in New Forests Rwanda	1. FORM Ghana Africa Forest Investment Forum 2. Africa Forest Impact Platform	The Dutch Fund for climate and Development

3.4.1 Uganda Development Bank

Uganda Development Bank Limited (UDB) is the country's national Development Finance Institution (DFI) capitalized by government with a mandate to accelerate socio-economic development in Uganda through sustainable financial interventions. Presently, UDB is financing three large commercial planters with acreage of over 1,000ha each originally partly supported by SPGS under a subsidy. UDB is financing them for secondary wood processing and value addition with the understanding that each of them has to replant equivalent acreage harvested. This is because UDB has adopted environmental standards in its financing. UDB has only offered them debt under commercial terms (12%) for 15 years and with 3 years grace period. In addition, it offers non-financial services like business advisory services and support for project preparation⁶⁸.

UDB allows the borrowing firms to secure additional wood resources from other planters, but this information (which is key in assessing the viability of the operations) from the bank's point of view must be disclosed by the borrowers at the time of submitting their application for funding. The firms must also provide evidence of formal MOUs that they have with other wood suppliers to them. These requirements or conditions enable UDB to make feasibility whether the firms will be able to repay their loans. In the event the borrowing firms become incapacitated to repay their debt, UDB has the option to take equity into the firms and possibly influence management/operations to recover its debt. In as much as UDB is now a very strategic funder in the plantation forestry value chain, it will not be able to accommodate the plantation establishment for the majority small and medium planters.

The main key barriers to the sector, which limits UDB's penetration and support are the long gestation period of tree planting, climate risk (drought spells) and uncertainty over CFRs because of squatters.

The **main lessons** are that:

- i. Some providers of finance in the plantation forestry development may be driven by scale if they have to make business sense, implying that there is need to bring on board other funders who can package their financing to suit the small and medium planters.
- ii. The grant type of support offered by UDB i.e. business advisory services helped to meet upfront costs of the borrowers where they would not have been able to assess whether their enterprises would make business sense.

3.4.2 Criterion African Partners

In Uganda, there are also **private equity** companies offering equity finance (going into joint ventures) with local firms and one of them is Criterion African Partners. This is a private equity firm that partners with proven management teams at growing companies to enhance productivity and create value for the benefit of all stakeholders in its key focus areas: Rehabilitation of existing plantations; downstream manufacturing and wood-based energy generation. Typical investments range from \$5 million to \$30 million with a focus on catalyzing growth, increasing productivity, addressing new markets and meeting shareholder liquidity needs. In Uganda, they have invested in Global Woods AG which has 8,000 ha of pine and eucalyptus in the Kikonda Central Forest Reserve. In the first phase of SPGS, Global Woods AG too benefited from the performance-based grant under SPGS. Global Woods is known for its high-quality nursery operations, planting, silviculture management, and environmental, social, and governance (ESG) practices.

⁶⁸ <https://www.udbl.co.ug/financial-services/>

However, when the climate in Uganda became uncertain because of **timber export ban**, they sold their interest to [Nile Fiberboard Ltd-\(which is part of NilePly Uganda Ltd\)](#), a manufacturer of high-value wood products such as plywood, particle board, and utility poles for the East African market⁶⁹.

Investment criteria/conditions that Criterion African partners use include:

- Motivated management teams with meaningful ownership to ensure alignment of interests.
- Over \$5 million annual revenue with growth potential.
- Strong customer relationships.
- Squarely in the forestry sector - somewhere between the resource through to value creation/industrial processing and biomass energy.
- Significant market opportunity.

The main lesson is that this **equity financing by private companies** is targeting **big plantations** that follow environmental standards and have a good understanding of the market. They target where there is a very big market opportunity or business, and that includes the opportunity to trade their forestry products and services in external markets.

3.4.3 Forest Management and Sustainable Charcoal Value Chain project - Uganda

In April 2025, the GOU supported by EU and FAP launched a five-year 15 million euro (\$16.29 million) Sustainable Wood-based Value Chain Project to build upon last 15- 20 Years substantial investments Uganda has made in the forestry sector through different initiatives of establishing commercial forestry plantations designed to bridge the timber supply gap and reduce pressure on natural forests. The project is part of the broader European Union Forest Partnership program, aiming to enhance the role of Uganda's forests in sustainable and inclusive national development and address challenges related to deforestation, forest degradation, climate change, and biodiversity loss. The specific objective of this project is to enhance inclusive investments in sustainable wood-based value chains and foster growth of an environmentally friendly and commercially viable wood industry. Another goal is to achieve economies of scale by aggregating more of the country's smallholder tree farmers and wood processors. The project plans to establish 1,808 hectares of wood energy plantation; rehabilitate 500 hectares of natural forests on private land; promote establishment of 3,000 hectares of woodlands and acquisition of 200 casamance kiln technologies.

The project aims at supporting economies of scale by aggregating more of the country's smallholder tree farmers; supporting wood processors with affordable finance using **blended instruments** of debt and equity; building the capacity of financial institutions to appraise the forestry sector investments. The project commits to work closely with other relevant institutions in public policy arena like Uganda Investment Authority (UIA), UTGA, Uganda National Bureau of Standards (UNBS), Uganda National Association of Builders, Suppliers and Engineering Contractors (UNABSEC), Uganda Bankers Association (UBA) and Uganda Manufacturers Association (UMA).

The project is anchored around three interlinked and mutually supportive outcomes, namely:

- Sustainable supply of legal wood raw material from planted forests ensured:* The project focuses on delivering targeted Technical Assistance (TA) to forest owners to implement sustainable forest

⁶⁹ <https://www.criterionafrica.com/investments/>

management practices. This initiative also seeks to expand the area of forests managed in accordance with internationally recognized forestry management standards.

- ii. *Processing capacity and market demand for wood products enhanced:* The initiative aims to improve wood processing efficiency, diversify products, and promote product quality standards to enhance the competitiveness of Uganda's wood products in the international market.
- iii. *Availability of and access to affordable finance improved:* The project seeks to address barriers faced by small and medium-sized enterprises (SMEs) operating within the logging and wood manufacturing sectors to access affordable finance. Some key interventions include; providing financial literacy and business management advisory support to improve investment readiness of SMEs; (ii) Strengthen capacity of financial institutions to design tailored financial products for (SMEs) operating within the logging and wood manufacturing sectors and; (ii) provide blended finance solutions to SMEs to bridge financing gap.

The expected results include the following;

- i. At least 5,000ha of plantations are certified through a credible international third-party forest certification body- as sustainably managed.
- ii. Recovery in primary wood processing operations increased from current 40% to at least 60%.
- iii. At least 5% increase in the value of investment (debt and equity) into the wood sector.

One of the key strengths of this project is aggregation of smallholder farmers and building the capacity of financial institutions to appraise the forestry sector investments, which is a key barrier in many financing institutions. The project started working with Energy Credit Capitalisation Company and Equity Bank.

In terms of alignment, the project aligns to Uganda's Vision 2040 aspirations for a green economy and sustainable management of the environment. It aligns with the UN- Sustainable Development Goals (SDGs), specifically; SDG 8 (Decent Work and Economic Growth); SDG 9 (Industry, Innovation, and Infrastructure); SDG 12 (Responsible Consumption and Production) and SDG 15 (Life on Land).

The study was informed that such above project would be critical now in the plantation development efforts in Uganda because whereas SPGS phases 1 to 3 and other initiatives concentrated on plantation establishment, this project comes to take them to the next phase of upstream processing and value addition. In one of the key informant interviews, it was revealed thus:

“Support for downstream processing, value addition and marketing are so critical for us now as first phase SPGS planters because should we fail to make money and replant, it will send negative signals to the very many who also want to go into commercial tree planting. Already we have problems because when we started, we were told that we would earn UGX 24 million per hectare of trees, but now you would be very lucky to get it”

Uganda's Charcoal project is integrating collaboration with existing institutions already partnering in Uganda for plantations (Equity Bank) and energy (Uganda Energy Credit Capitalization Company).

3.4.4 Woodmill Company Ltd

A group of willing 22 members of UTGA have resolved to form the Woodmill Company Limited to add value to their mature plantation stock in a co-investment model with New Forest Asset Management

Company using private equity. The New Forest Asset Management Company is expected to bring in US\$ 7-8million. The four priorities of the proposed Woodmill are:

- i. Support value addition from each tree value chain.
- ii. Develop the market (through awareness, and ensuring control of standards).
- iii. Develop additional income streams for members e.g. through incorporating carbon credits.
- iv. Develop a charcoal value chain.

The Woodmill will operate under a company limited by shares. The company's secretariat is now fully operational with a full-time Chief Executive Officer, physical address, functional bank accounts, approved annual budget, and approved company and board policies and procedures. The Wood Mill has now entered the off-taker phase. Construction of the Woodmill facility in Mubende is planned to be completed in September 2025. The company will therefore be able to buy the first-round logs from its members for processing in quarter four of 2025. The company will enable members to build economies of scale in processing and marketing, thereby making money and reinvesting in plantation establishment and processing.

The company is built on the successes of the grant financed SPGS 1-3 and the current EU follow on project for wood processing implemented by FAO. As it develops, Woodmill will need to liaise with Ministry of Industry, Trade and Cooperatives who are proposing to form a company limited by shares, and to raise for it a value addition fund as SPV in collaboration with Stanbic bank.

3.4.5 KOMAZA Company Ltd, Kenya

Komaza is a social enterprise established in 2007 supporting smallholders to develop farm woodlots and market their timber in the dry coastal areas of Kenya. The company started as an NGO (Komaza Kenya) ten years ago but changed status in 2017 to incorporate as a for-profit company (Komaza Forestry Ltd) after raising sufficient capital to scale up their operations and run them on a commercial basis. The company is promoting the establishment of small-scale woodlots of Eucalyptus spp and a nitrogen-fixing native hardwood species, *Melia volkensii*, that can be grown in agroforestry systems on a 15–20-year rotation to produce timber.

The project is financed through equity, debt and grant funding. The organisation raised \$13.5 million in its first ten years: \$3.75 million grants, \$750,000 in 0% interest loans from the crowdfunding platform Kiva and from the sale of \$9.1 million in equity to a range of investors including the Dutch DFI. It is involved in Plantation establishment, wood processing and marketing in North Coast, Kilifi County on Kenya coast but the company is expanding planting to Kwale county (south of Mombasa) and Mt Kenya / Aberdare region. The company is working with 25,000 farmers to help them earn a life-changing income. By 2050, we aim to generate \$125m/year income for farmers and their families.

Institutionally, the company works with smallholder farmers who are enrolled and contracted to engage in tree planting with condition of the wood being purchased by the company. The company currently operates on a contract-growing model with farmers providing land and labour, and the company providing seedlings, inputs and technical advice. Beneficiaries have to prove landownership before being engaged by the Company.

The company efforts have contributed to increased total tree cover in Coastal and Central Kenya by 9,500 ha by planting 8 million trees to date ([Company – Komaza](#)). Most of the trees planted have not matured, and therefore it is difficult to indicate other socio-economic impacts.

The **main lessons** are that:

- i. Komaza's business model allows for lower initial capital investments (e.g. forestation costs) and more rapid regional expansion to increase volumes because of working with smallholder farmers who provide land and labour.
- ii. Komaza right from the start took a long-term perspective of over 15 years, which most projects don't take, and in such a long period it was able to assess the business potential with more certainty than it would have been for another investment shorter than the gestation period of the plantation
- iii. The formal contract Komaza signed with small farmers and assuring them it would buy their stock (I.e. providing the market) are key enablers of the model.
- iv. Komaza has all round skills in financial resource mobilization, plantation establishment, wood processing and marketing which could also contribute to success.

3.4.6 FMO and Finnfund in New Forest Rwanda

FMO - a Dutch Entrepreneurial Development Bank and Finnfund have signed a shared USD15 million (USD7.5 million each) senior loan to support New Forests Rwanda (NFR), a subsidiary of New Forests Company Holdings Ltd towards the development of a plantation in a concession located around the Nyungwe National Park (NNP), and will support NFR's core business, transmission poles and building up of a sawn timber market⁷⁰. FMO is investing in 85 countries⁷¹. Funds from FMO will be used for capex, refinancing existing shorter-term debt, working capital and include a USD5 million contingency facility. New Forests Company Holdings (NFCH) will provide an additional USD2 million funding if the contingency facility is triggered.

The project is fully in line with FMO's doubling impact, halving footprint strategy with significant positive impact on GHG emissions through reforestation and protection of the 900 km² NNP. The Project also facilitates GoR's rural electrification infrastructure (Access to Energy) roll-out with significant employment creation through a smallholder roll-out strategy. NFCH Group has clear, long term sustainable development objectives in the forestry sector in East Africa, with a good track record, focus on cash flow and a robust/tested Environmental, Social and Governance (ESG) management system.

FMO⁷² offers the following products to countries:

- i. Medium and long-term loans at both fixed and variable interest rates and with a repayment grace period where needed.
- ii. Arrange syndicated loans to raise **larger financing amounts** for clients in an efficient way.
- iii. Invest in equity **directly or indirectly** (through funds) or co-invest with partners.
- iv. Structure guarantees them so that they meet the specific needs of the borrower, the market and the targeted creditors.
- v. Facilitate the transfer of knowledge and skills with our capacity development programme.

⁷⁰ <https://www.fmo.nl/project-detail/49755>

⁷¹ <https://www.fmo.nl/>

⁷² <https://www.fmo.nl/products-and-services>

On the other hand, Finnfund is a development financier and impact investor supporting businesses operating in Africa, Asia and Latin America with risk capital, long-term investment loans, mezzanine financing and expertise on how to invest in the developing markets⁷³. It invests only in developing countries as defined by OECD/DAC in projects expected to be profitable, socially and environmentally responsible and produce measurable development impact in their target countries. It puts special emphasis on sectors that are critical to sustainable development: renewable energy, sustainable forestry, sustainable agriculture and financial institutions.

The **main lessons** are that:

- i. The coming together of partners from different comparative advantages of financing helped create a blended pool of financing instruments (equity, loan, guarantees, technical assistance) to finance plantation forestry around Nyungwe National Park in Rwanda.
- ii. The provision of a long-term concession by GOR to New Forest Company, Rwanda was also a key enabler.
- iii. The forest investment to the GOR energy development helped to assure the market for the investment, especially for poles in addition to the additional market for carbon.
- iv. Both FMO and Finnfund offer large amounts of financing, including long term financing but as they do, they expect business support to be profitable.

3.4.7 FORM Ghana a subsidiary of Sustainable Forestry Investment BV based in the Netherlands

In Africa, FORM Ghana is a forest plantation management company operating in central Ghana. It was established in 2007 as a subsidiary of Sustainable Forestry Investment BV based in the Netherlands. It is also the largest private teak plantation company in Africa and has an ambition to restore 100,000 hectares of degraded forests by 2030. It is focused on reforestation degraded and riparian forest areas using four strategies, namely: Private-Public Partnership (PPP), Integrated Forest plantation; SFM Practices and Integrating FSC standards.

The Forest Commission of Ghana leased 19400 hectares of the degraded TAIN II Forest reserve to FORM Ghana. The company obtained an FSC certificate for its Sustainable Forest management in 2010 and has a carbon credit validated and verified with the verified carbon standard VCS since 2013.

Form Ghana Ltd was engaged by AfDB, World Bank Forest Investment Programme (FIP) and the Government of Ghana (GoG) to undertake this innovative PPP project in its forest sector. Approved in September 2016, the project was backed by a US \$10-million concessional loan from the FIP and supplemented by US \$14 million in co-financing from the AfDB. The project is Ghana's first forest sector PPP due to a tripartite Benefit Sharing Agreement signed between GoG through the Forestry Commission of Ghana with Form Ghana acting as project sponsor and traditional landowners⁷⁴. Thus, Form Ghana has raised financing under **blended financing** made up of private **equity**, African development bank **loan** and **grants**.

⁷³ <https://finnfund.fi/en/>

⁷⁴ <https://www.afdb.org/fr/news-and-events/african-development-bank-and-forest-investment-program-sign-loan-with-form-ghana-ltd-to-restore-ghanas-forests-16768>

In terms of achievements, by the time FORM Ghana Company was incorporated in Ghana in 2007, it was already boasting of **11,000ha** with teak and indigenous species. It is a leading forest company in West Africa by its scale, sustainability certification, a PPP with the Ghana Forestry Commission and general Ghana business awards. It already has a total of **20,000** hectares leased. It embraces the TAUNGYA system of agroforestry and intercropping practices which combine **food crops with strategically planted trees**. These activities restore ecosystems, diversify income sources and promote sustainability agricultural practices.

In January 2023, Criterion Africa Partners made a \$ 17.1 million equity investment in FORM Ghana. The capital was deployed from Criterion's 2018-terminated African Sustainable Forestry Fund II, which closed on \$115 million in 2020. To note, Fund II is exclusively backed by seven development finance institutions (DFIs), including FinDer Canada, CDC Group, African Development Bank and SIFEM, the last three of which are return investors. The financing Vehicle (Fund II) will target plantation assets located in sub-Saharan Africa, with a focus on Eswatin, Gabon, Ghana, South Africa and Uganda. Under the arrangement and as already mentioned, Criterion African Partners sold a 8500ha pine and eucalyptus timber asset in Uganda's Kikonda Forest Reserve to Nile Fireboard in 2020. The deals' financial details were not disclosed⁷⁵.

In Uganda, FORM Ghana reports it is involved in forest restoration and conservation in Mount Kei project in Uganda where it is working with and through Equatorial Forestry Company. The project aims to restore 28,000 hectares of heavily degraded vegetation into natural forest through assisted natural regeneration, enrichment plantations and conservation alongside approximately 14000 hectares into **commercial tree plantations** intertwined with wide riparian zones that will be restored. The project aims to contribute to securing wood supply to high value timber production. It aims to certify the value chain from production to local processing driven by both **local and international standards**. The project will generate carbon credits. It will avoid up to 5.2million tons of CO² over 40 years.

The **lessons** from FORM Ghana are as follows:

- i. FORM Ghana used a blended financing approach in its financing by combining private equity, and African development bank loan and grants.
- ii. There is already a lot of equity financing directed by Development Finance Institutions alone or in partnership with Development Banks and private asset companies, but it is targeted to very large-scale plantation developers.
- iii. These equity financing providers are very sensitive to ESG standards as some of the companies in which they invest also aim at earning an additional stream of revenue from carbon markets.
- iv. FORM Ghana is able to secure such big amount of capital because among others, Ghana government provided a long-term lease for plantation forestry development.

⁷⁵ <https://www.agriinvestor.com/criterion-africa-partners-takes-minority-stake-in-form-ghana/#:~:text=A%20statement%20from%20Criterion%20Africa%20Partners%20said.of%20commercialization%20and%20revenue%20growth%2C%20as%20its>

3.4.8 Africa Forest Impact Platform

In December 2022, New Forests along with its investment partners British International Investment (BII)⁷⁶, Norfund and Finnfund signed subscription agreements for their investment in a **dedicated African Fund called the African Forestry Impact Platform (AFIP)** for US\$ 200 million. At the same time, it announced AFIP's first acquisition of Green Resources, which is East Africa's largest forest development and wood processing company. This follows an announcement at COP 26 around the intention of these groups to partners to develop investment strategies designed to scale and transform the sustainable forestry sector in Sub-Saharan Africa. AFIP will continue to raise long term institutional capital to support the sustainability and development of Africa's growing forestry sector with the aim of raising US\$500 million for the platform in the next two to three years⁷⁷.

In terms of target areas, AFIP will invest in a portfolio of plantation forestry operating companies and related assets in Sub Saharan Africa primarily targeting established assets that can be expected to provide stable and predictable cash flows across a diversified set of markets.

Building on New Forests unique approach to sustainability, AFIP will focus on four key areas of impact, namely: climate change mitigation; biodiversity conservation; gender and diversity and community and livelihoods. In addition, AFIP will also support forest conservation, restoration of degraded land and expansion of community-based forestry programs and delivering social and environmental values to small holders and other landscape stakeholders.

The main **strength** of this financing arrangement is the capacity of the partners to raise very substantial capital, which will benefit some of the already established big planters like Busoga Forest Company. The main **weakness** is that the funding will neither start off new players nor target small and medium players, unless perhaps the small and medium planters are formally organized as outgrowers for the large companies accessing equity financing under AFIP.

The main lesson is that Uganda has to continuously improving the policy, legal and investment climate so that Uganda is able to appear favorable and competitive for long term equity investors since it has been shown that the same equity financing is targeting other African countries. Owing to this factor Uganda has to develop capacity to attract equity funding for plantation forestry. Secondly, while this equity financing has focus of plantation forestry, it is seen above that it also has strong focus on biodiversity conservation; gender, communities and livelihoods. The latter components can be selling points in mobilizing financial resources

3.4.9 The Dutch Fund for Climate and Development (DFCD)

The Dutch Fund for Climate and Development (DFCD) is a climate resilience fund, dedicated to supporting climate adaptation and mitigation projects which benefit vulnerable communities and landscapes. It is funded by the Dutch government and powered by a consortium of expert organisations: FMO (Dutch Entrepreneurial Development Bank), CFM (Climate Fund Managers), SNV, a global development partner,

⁷⁶ Formerly CDC Group

⁷⁷ <https://www.norfund.no/wp-content/uploads/2022/10/Media-Release-New-Forests-announces-first-investors-in-African-Forestry-Impact-Platform-.pdf>

and WWF Netherlands. The consortium works with projects across Africa, Asia and Latin America in the sectors of water and sanitation and agriculture, forestry, land use and land use change⁷⁸.

They provide access to finance for promising early-stage initiatives, helping them to develop and grow into scalable projects that are resilient to the effects of climate change. To maximise potential for investment, they first seek to de-risk the projects through the Origination Facility, building their capacity to grow with financial (including debt and equity) and technical assistance. The Origination Facility is used for project identification and feasibility activities across a range of sectors and is co-managed by WWF and SNV.

The main lesson from this model is that the consortium composed of government, Development Bank, and NGO was established to create and blend a dedicated pool of resources made of grants, debt, equity and technical assistance for supporting vulnerable communities. Importantly, the model has also marshalled expertise of the participating institutions which can technically assess the feasibility of their financing.

Illustrative examples of companies that have got equity financing (over and above other financing instruments) are shown below:

Table 11: Sample companies leveraging on equity financing

Company	Scale of operations
Busoga Forest Company	Large
New Forest Company-Uganda	Large
New Forest Company-Rwanda	Large
KOMAZA-Kenya	Medium
FORM Ghana	Large
Global Woods	Large
Wood mill(in process)	Large
Financing for Wood Value chain-planned under EU project	

3.4.10 Key lessons from equity led financing mechanisms

The summary of key messages/lessons for Uganda from the above examples is given in Box 5.

Box 5. Summary of lessons from predominantly equity led financing model

1. Equity financing and/or in combination with debt and grants is increasing to Uganda but favoring the large already established forestry developers, some with similar investments in Africa and beyond.
2. Large amounts of finance as well as high quality human capacity, were mobilised. A shortcoming of this set up is that this type of financing would not favour many small and medium planters.
3. A key enabler in attracting the above financing is that governments have provided long term leases/concessions to land/forest reserves.
4. Uganda will have to continuously invest in enabling environment so that it is favourable and perhaps more competitive relative to other countries in Africa and elsewhere where such financing is also targeted.
5. The declaration of a ban on timber exports all over a sudden has for example made some of the equity finance providers exit the market, having sold their interests to others.
6. At operational level, the combination of equity, debt and grants has helped some investors to blend it so that their investments can be more viable than they would otherwise be without blending.

⁷⁸ <https://www.thedfed.com/>

7. In addition to mobilizing and blending financing, it is imperative that the participating partners also have the capacity to assess the feasibility to which their funding will be put.

3.5 Debt-for-Nature Swap

The study considered 9 debts for nature swaps (DNS), 2 in East Africa, 2 from the rest of Africa and 5 outside Africa.

Table 12: Debt for Nature Swaps case studies analysed

Sector	East Africa case studies	Africa case studies	Case studies for the rest of the world
Forestry sub-sector	Democratic Republic of Congo	1. Gabon 2. Seychelles	1. Belize 2. Bolivia 3. Colombia 4. Peru 5. Uruguay
Non forest sub sector	Kenya		

Debt-for-nature swap is an agreement where a creditor country forgives a portion of a debtor nation's foreign debt in exchange for a commitment to invest in specific environmental projects or conservation efforts. From a historical perspective, the concept of DFN or trading debt forgiveness for environmental outcomes was originally conceived by Thomas Lovejoy of the WWF, and the first successful DFN swap was executed for Bolivia in 1987, facilitated by Conservation International (CI). The general aim of the model was to help control the exploitation of natural resources without ignoring the economic needs of developing countries. This was to be accomplished by using debt forgiveness to mobilize domestic spending on conservation, which might be otherwise limited in developing countries due to budget constraints.

Since 2000, there has been reemergence of DNS as illustrated in Table 13.

Table 13: Recent developments for DNS

Year	Developments
2020	The top leadership of the World Bank and the IMF issued a joint statement calling “on all official bilateral creditors to suspend debt payments from IDA countries that request forbearance.”
2020	The G20 and the Paris Club creditors agreed to provide temporary debt service relief to all countries eligible for IDA concessional borrowing and all the members of the UN Least Developed Countries. A total of 73 low and low-middle income countries were deemed eligible, including 32 countries in Africa. According to preliminary estimates by the G20, between May 2020 and December 2021, 50 eligible countries have been able to defer about USD 12.9 billion in debt service under this initiative. While early estimates predicted that African countries could save USD 5.5 billion in debt service between May and December 2020, the actual savings amounted to only USD 1.8 billion in 2020.
2021	African Finance Ministers gave support for the WB/IMF proposal and called on the G20 for the “urgent and immediate release” of \$100 billion to support the fragile health infrastructure and the most vulnerable—including \$44 billion for debt relief for all countries on the continent and an additional \$55 billion for “building back”
2021	The African Union unveiled a five-year continental plan for simultaneously tackling the COVID-19 recovery and climate change. The “Green Recovery Action Plan” focuses on five priority areas, including climate finance; renewable energy; nature-based solutions and a focus on biodiversity through work on sustainable land management, forestry, oceans and ecotourism; resilient agriculture; and green and resilient

cities. The plan aims to strengthen collaboration among the member states, galvanize support from international partners and introduce innovations in the field of green and blue debt transactions.

In Africa overall, debt swaps have secured over USD 135 million in conservation funding and other environmental projects for 15 countries between 1989 and 2015. While these amounts are relatively small in terms of fiscal space, they have provided meaningful financing for conservation projects, for which a government might have otherwise lacked the necessary budget. In essence, DFN swaps redirect government funds from debt service to environmental initiatives, and sometimes to other development projects as well.

Debt for Nature swaps are mainly structured as Two-Party (Bilateral) Swaps or Multi-Party (Commercial) Swaps. The two-party swaps can be described most simply as the write-off of a bilateral loan by a creditor in return for something else, generally environmental results within the debtor country. Whether any given transaction constitutes the forgiveness of an entire loan or just a portion, a bilateral swap can be an effective and efficient way of freeing up a debtor government's budget for other uses, including local environmental initiatives.

On the other hand, a multi-party DFN swap involves the intention of a third party to buy out an existing sovereign debt instrument from the original (or current) creditors. The primary intermediary in this arrangement is often an environmentally oriented NGO, such as CI, TNC, or WWF, though it is certainly not uncommon for a group of donor institutions to coordinate and share the burden of a single transaction. In a multi-party swap agreement, the donor or intermediary will offer to purchase debt at a substantial discount from the creditors who currently hold it. In return for this reduced debt burden, the debtor country would then allocate a portion of the savings to a locally based conservation fund with the intention of protecting its own natural environment. Aside from the green publicity to be gained from such a swap, a major incentive for the commercial creditors to accept the discounted buyout of their held debt is the opportunity to achieve a "cash now" outcome from an instrument that may otherwise be viewed as somewhat risky.

In both cases, Two-Party (Bilateral) Swaps or Multi-Party (Commercial) Swaps), both the debtor and creditor country have to agree on the preferred choice to enable both maintain trust for what the relief can be used for and for ensuring transparency and accountability. Table 14 shows countries that signed agreements for DNS or exploring to do so.

Table 14: Countries that have signed or exploring debt for nature swaps in recent times⁷⁹

Year	Indebted country	Creditor country/organization	Amount of debt relief	Purpose
2016	Indonesia	Norway	US\$ 56 million	Reduction of greenhouse gas emissions through land-use planning and forest preservation.
2016	Colombia	Conservation International/GEF	US\$ 36 million	Forest and other ecosystem preservation, sustainable agriculture and reforestation.
2017	Costa Rica	United States	US 27.1 million	Reforestation, the creation of new national parks, the creation of other protected areas and ecotourism.
2018	Peru	Conservancy International/GEF	US\$ 26 million	Forest preservation and sustainable agriculture.

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https://africanlegalsupportfacility.com/publication/NYUp6HhE_DEBT%20SWAPS%20A%20COMPREHENSIVE%20GUIDE%20FOR%20AFRICAN%20SOVEREIGNS.pdf

2019	Seychelles	The Nature Conservancy/GEF	US\$ 21.6 million	Expansion of current marine protected areas and creation of new ones.
2023	Gabon	International bondholder/The Nature Conservancy	US\$ 126 million	Widening marine reserves and strengthening fishing regulations.
2025	Kenya	Germany	€ 60 million	Develop more clean geothermal energy capacity ⁸⁰ .
2025	DRC			Exploring launching a debt-for-nature swap to finance sustainable development projects while easing its public debt burden to fund climate action ⁸¹ .

Debt-for-nature swaps had been used in over 30 countries and had restructured USD 2.5 billion of debt and released USD 1.2 billion into conservation projects by 2022⁸². Belize's debt for nature swap with The Nature Conservancy reduced the country's external debt by 10% of GDP⁸³.

Key lessons for Uganda

There are two lessons for Uganda:

1. Debt for nature swaps tends to take a long time to negotiate and implement because of their complexity and the involvement of multiple stakeholders. However, they require the indebted country to find a current creditor willing to pay for outcomes the country wants to achieve (the reverse is true).
2. Uganda's public debt stock stood at UGX 96.1 trillion (about US\$ 25.3 billion) by December 2024, with UGX 59.3 trillion (61.7%) in external debt and UGX 36,8 trillion in domestic debt (38.3%). As a highly indebted country, Uganda would balance its interests for commercial forestry while at the same time reducing its burden for debt.

3.6 Incentives and their rationale

While there is no dearth of definitions for incentives, defined in very broad terms, an incentive is anything that motivates or stimulates people to act⁸⁴. So, Incentives for plantation forestry can be defined as measures that encourage investment and development of tree plantations by making them more attractive than other land uses or industries. These incentives can take various forms, including financial support, technical assistance, and favorable regulatory environments. Uganda has embraced incentives under different laws to attract investments.

According to the Food and Agriculture Organization (FAO), historically, public-sector agencies dominated forest plantation development in most countries. This pattern has changed in many countries over the past 20 years, mainly for four reasons. First, devolution of forest management has led to greater involvement of communities and the private sector in forestry. Second, the performance (financially and biologically) of public-sector plantations - has been disappointing in many countries. Third, shrinking government budgets makes it impossible for most forest departments to devote as many resources to forest plantations as they

⁸⁰ <https://carbon-pulse.com/363356/>

⁸¹ <https://www.uneca.org/stories/debt-for-nature-swaps%2C-a-game-changer-for-the-drc%E2%80%99s-climate-action>

⁸² <https://napglobalnetwork.org/innovative-financing/debt-for-nature-swaps/>

⁸³ <https://www.undp.org/future-development/signals-spotlight-2023/new-wave-debt-swaps-climate-or-nature>

⁸⁴ <https://www.fao.org/4/ad524e/ad524e05.htm#TopOfPage>

have in the past. Fourth, problems related to weak governance structures drove many countries to reconsider the role of government in administering forest resources and in directly implementing forest programmes⁸⁵.

Uganda too recognized the importance of the private sector in the implementation of the National Forest Policy 2003 and pointed out that government would need to provide incentives to stimulate the private sector. The policy states thus:

“Part of the agenda for restructuring government has been to decrease the size of central and local government, and to reduce its role in activities that can be performed better by the private sector. The government sees a major role for the private sector in forestry, particularly in the production and processing of wood products and in ecotourism, which are major employers and which require good business management”.

Table 14 provides the categories of incentives countries have used for plantation forestry and they include the direct ones (e.g. grants, subsidies and guarantee) and indirect ones (e.g. tax and interest rates regimes) and broad national level enablers like laws, policies, institutions, rule of law, and national competitive index). The different categories of incentives reinforce one another, and they should not be seen as exclusive to one another.

Indirect incentives on the other hand have an indirect effect through setting or changing the overall framework conditions within and outside the forestry sector. For example, tax concessions for plantation investors are a direct incentive, whereas general tax reductions for fuel are considered indirect incentives.

Indirect incentives can further be divided into variable incentives and enabling incentives (Table 15). Variable incentives are economic factors that affect the net returns that producers earn from plantation activities. Enabling incentives on the other hand mediate an investor’s potential response to variable incentives and help to determine land use and management⁸⁶. They can also be viewed as elements in the investment environment that affect decision making because they lower production and transport costs within - as well as outside - the plantation sector.

Table 15: Typology of incentives for plantation forestry development and examples

Type of Direct incentives		Indirect incentives		Enabling
		Variable		
		Sectoral	Macro-economic	
Examples	Goods and materials (e.g. seedlings, fertilizers etc.) Smart subsidies Grants Tax reliefs or concessions Low-cost loans Cost-sharing arrangements and price guarantees	Input and output prices Specific taxes Trade restrictions (e.g. tariffs, quotas)	Exchange rates General taxes Interest rates Fiscal and monetary measure	Land tenure and resource security Accessibility and availability of basic infrastructure (roads, electricity, water, telecoms etc.) Producer support services Product development and promotion (e.g. certification, labeling, etc.) Market development Credit facilities Political and macro-economic stability

⁸⁵ <https://www.fao.org/4/ae535e/ae535e03.htm>

⁸⁶ FAO. 1999. Incentive systems for natural resource management. Environmental Reports Series 2. FAO Investment Centre. Rome, Food and Agriculture Organization of the United Nations.

	Forward contracts (e.g., under out grower schemes) Specific provision of local infrastructure.			National security Research and development Extension
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Countries have provided incentives for plantation forestry development under the following rationale:

- i. To motivate the private sector, communities and landowners benefit from their contributions and investments in securing socially and publicly desirable benefits like forestry ecosystem services and avoided degradation of natural forests which they would otherwise not incorporate in their decision making.
- ii. To help investors overcome barriers such as start-up and upfront costs of establishing plantation forests which actually take long to provide a return on investment land where the government alone, would not marshal all the required financing throughout the plantation rotation.
- iii. To jump-start the initial development of plantation forests and industries as a strategic key to attract investors from other countries (e.g. as was done by countries like Indonesia and Chile).
- iv. To encourage economic development and generate employment in specific less developed regions, especially when the plantations can attract infrastructure, services and jobs.
- v. To contribute to the self-financing of the sector by delaying revenue objective but taxing forestry products later on maturing of plantation subsidies are reported to have profited the state.

3.6.1 Uganda experience with incentives

Uganda has introduced incentives under different legislation as demonstrated. In addition, Uganda has used incentives like subsidies, provision of inputs and advisory services in the implementation of SPGS, FIEFOC projects and other projects. The main incentive to date has been granting permits to private commercial planters in Central Forest Reserves. This has created an effective Public-Private-Community Partnerships (PPCPs). The government under NDP IV has also pronounced its support for PPCPs in ensuring that development initiatives are both inclusive and sustainable specifically with regard to protecting, restoring and adding value to forests. The main message is that the understanding of incentives and their integration within national policies and laws are well understood, and improvements can be made with time, and specifically for plantation forestry.

Although Government introduced a VAT waiver (18%) on LPG in 2020 to reduce pressure on deforestation and to shift demand from the use of charcoal and firewood, the impacts are mixed. No doubt the waiver reduced the cost and that is a benefit to regular users. However, the adoption of LPG has not been as high as expected even in urban areas where it is more accessible than in rural areas mainly because the prices are still high. In addition, there still remains a socio-cultural barrier, including the perception that some food items like bananas taste better when cooked with charcoal or firewood. The implication is that the government must continuously monitor whether the incentives are yielding the impacts for which they are intended. In addition, there is a need for various sector agencies to liaise with the Ministry responsible for Finance for approval and announcement during budget readings. Finally, the sector agencies' capacities must be developed to design the incentives before engaging the Minister responsible for Finance.

3.6.2 Experience from other countries

The experience from **Chile, Costa Rica, Uruguay and Indonesia** in Table 16 brings a number of lessons, namely that;

- i. They have implemented the incentives for a long and backed by law.
- ii. They have put in a lot of financing.
- iii. The incentives have triggered a lot of investments for the forestry subsector, contributing to earnings and to GDP.
- iv. Overall, the countries have evaluated their incentives as successful or efficient although classification of a program as “successful” or “efficient” is in general terms and despite certain difficulties within the programs over their years of existence (For example Indonesia accepts there was episode of corruption and bad governance at some point).

Table 16: Reforestation Incentives Systems for Tree Plantations in the Tropics

Evaluation criteria across countries	Chile	Costa Rica	Uruguay	Indonesia
Date of establishment ⁸⁷	D.L. 701 from 1974 to 1994	1979: Forest Promotion Certificate (CAF)	Forestry Law #15939 from December 1997	Forestry Law 41/1999
1.Continuity and acceptance of the program	Forest Law (1974), with extensions through 2012 and beyond	Forest Law #7032 was passed in 1986, FONAFIFO in 1990	Program widely accepted by private owners, although the majority had used their own resources or credit from banks.	Little continuity and easily reversible changes
2.State funds allocated to the program (USD)	1976–2000, \$162 million (USD)	3.5 % of taxes on fuel and other income from forestry taxes; \$14 million (USD) for PES; \$46.4 million (USD) for 1988–1995	Forest fund with annual contributions equivalent to the cost of establishing 10,000 ha/year	From 1989 to 2009: \$5.8 billion (USD)
3.Non-state investment generated by the incentive	Exportations have increased 30 times over 18 years. In 1995, In 2000, the forest sector generated an income of \$2.35 billion.	\$122 million (USD) (FAO, 2005)	\$1.3 billion (USD) (2011); \$1.12 billion (USD) (2012)	The sector contributes \$21 billion (USD) to the economy and generates 3.7 million jobs.
4.Sector contribution to GDP	In the year 2000, the forest sector contributed \$3.2 billion (USD) to the GDP (around 2 %)	6 %, agriculture, silviculture, and fisheries	1.0 % (2006) as part of the 6 % contribution of agriculture to GDP	Entire forestry/industry sector 3.5 %
5.Reforested area (thousands of ha)	1,707 (1990); 1.36 (2000); 2,062 (2005); 2,384 (2010)	295 (1990); 203 (2000); 222 (2005); 241 (2010)	-	2,290 (1990); 3,672 (2000); 3,699 (2005); 3,542 (2010)
6.Reforestation rate (ha/year)	61,300 (1990–2000); 61,400 (2000–2005); 64,000 (2005–2010)	–9,000 (1990–2000); 4,000 (2000–2005); 4,000 (2005–2010)	-	5,000 (2000–2005)–30,000 (2005–2010)
7. Percentage of total forest area (%)	11.4 (1990); 14.9 (2000); 16.5 (2005)	0.1 (2000); 0.2 (2005)	-	(1990); 3.1 (2000); 3.8 (2005)
8.Overall assessment	Very efficient program, very active private sector; decision by the timber industry to substitute forest timber for plantation production; participation of the private banks; long periods for payments; political will; diverse forest taxes, variety of types of incentives, strictly commercial plantations.	Efficient program run at the level of smallholders; administration independent from the state forest authority; capacity to raise external funds.	The program is very efficient because of facility for favorable loans for several years via state banks, respect for private property. But, negative aspect too-, high emphasis on large producers and little participation of smallholders	The program had many limitations: over centralization, lack of technical and administrative capacity to implement; high level of corruption; government had more interest in managing natural forests and leaving aside possible tree plantation.

⁸⁷ https://link.springer.com/referenceworkentry/10.1007/978-3-642-54601-3_123?fromPaywallRec=true

Further, based on the experiences of nine countries in the Asia-Pacific, based on a regional study made by the Asia-Pacific Forestry Commission (APFC) to assess the impact of incentives on forest plantation development in 9 countries ⁸⁸ the study found that:

- i. There is **no blueprint** for engaging non-government investors in forest plantation development using incentives, each country must study the reality on the ground.
- ii. Countries used a package of incentives.
- iii. Consistent and stable policies and a favourable investment climate are essential ingredients to promote the development of forest plantations by small- and large-scale producers.
- iv. In most countries covered by the study, forest plantation development on a significant scale was initiated by the State, which supports the argument that an initial critical mass is necessary to ensure private-sector involvement in plantation development.
- v. Once the involvement of the private sector is sought more directly, the use of incentives appears to progress gradually from provision of free input, to grants and loans, to tax concessions, to joint venture arrangements and finally to a focus on creating an enabling environment and removing structural impediments.

⁸⁸ <https://www.fao.org/4/ae535e/ae535e03.htm>

Table 17: The experience of using incentives for plantation development in nine countries

Country	State Planning	Low-cost seedlings	Land grants	Nursery subsidies	Survival incentive	Grants to growers	Concessionary loans	Tax concessions	Joint venture arrangement	Resource and security	Research security	Focus on enabling incentives and removal of structural constraints
1.Australia	X					X	X	X	X	X	X	High
2.China	X	X	X			X	X					Medium
3.India	X	X	X	X	X	X	X		X	X		Low
4.Indonesia	X					X	X	X		X		Low
5. New Zealand	X	X	X			X	X	X	X	X	X	High
6.Philippines	X		X				X	X		X		Low
7.Sabah (Malaysia)	X							X		X		Medium
8.Thailand	X	X										Low
9.USA	X	X	X			X		X	X	X	X	High

Source: <https://www.fao.org/4/ad524e/ad524e06.htm#TopOfPage>

Timing for application of type of incentives over time within the plantation forestry cycle

FAO broadly puts plantation forestry development in three broad stages-that is, initiation, acceleration and maturation stages. It advises that during the initiation stage, direct incentives may be required, in certain instances, to raise awareness and to increase the pace and scale of tree planting, especially to build up raw material supplies for an expanding processing sector. However, as experience is gained and both capacity and infrastructure develop, direct incentives become less important (they can also suffer from very high transaction costs). They are likely to be replaced by variable incentives and complemented by research and development, and extension, during the acceleration stage. In fact, a good sign of success is direct incentives becoming obsolete during the acceleration stage. During the study, one respondent who is also a big planter in CFR since early 2004 remarked thus:

“For sure we have reached a level where we don’t need grants for plantations because our operations are now self-sustaining and allowing us to borrow on commercial terms to improve further”

In the long term, providing a favourable investment climate, technical assistance and well-established markets have greater influence than direct incentives such as free seedlings, subsidized credit or cost-sharing of planting expenses. In all cases, incentive systems must be timely, well-targeted and flexible if they are to successfully engage the private sector in forest plantation development.

In countries where plantations have reached the maturation stage, it has been recognized that key measures to maintain private sector interest and investment in plantation development are related to the reduction of barriers to investments and removal of structural impediments and operational constraints. The key to success in forest plantation development lies in providing clear and secure resource and property rights, and coherent and stable policies⁸⁹.

FAO provides key principles on the Dos and DONTs of using incentives for plantation forestry which offer good lessons for Uganda. They are in Table 18. The **key lessons** are provided in Box 6.

Table 18: Main Principles to guide the Dos and DONTs in using incentives for plantation forestry

DOS	DONTs
1. Provide a stable and coherent policy that is supportive of economic activities. 2. Ensure that other (non-forestry) policies are aligned so that plantation investment can occur on a level playing field. 3. Develop strong research and extension service for plantation development. 4. Establish strong industry clusters, including supporting infrastructure a competent labour/contractors force, and appropriate codes of practice. 5. Collect and disseminate quality information to support policy planning and monitoring. 6. Encourage healthy debate on the merits and reasons for offering incentives. 7. Incentives need to be studied and adjusted with time, taking into account their impacts.	1. Promote inequitable land use policies that four other sectors (e.g., agricultural) ex over forestry investments. 2. Persist with export or import controls that hinder the development of efficient wood processing and/forest plantation establishment. 3. Maintain policies that allow plantation development with detrimental environment and/ or social impacts, causing conflicts among private companies, communities and environmental groups. 4. Crowd out private sector investments, particularly by

⁸⁹ <https://www.fao.org/4/ae535e/ae535e03.htm>

	maintaining public sector involvement. 5. Keep policies and incentives in place longer than necessary, keeping in mind that the most successful incentives are those that can be phased out. 6. Retain bureaucratic procedures that reduce returns to investments.
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Source: <https://www.fao.org/4/ad524e/ad524e06.htm#TopOfPage>

Box 6: Main lessons from the use of incentives

- i. Uganda already has experience on prescribing incentives.
- ii. As countries gave way to the private sector in participating in plantation forestry development, the strategy to use incentives was very strategic.
- iii. The use of specific incentives is not static and so governments have to study their impact and make modifications.
- iv. The direct incentives are more appropriate at the initiation of plantation development because the up-front costs are high.
- v. As the plantations reach the acceleration stage, indirect incentives should come into play.
- vi. Overall, the vibrant market offers the best rewarding incentive for all players along the value chain.

3.7 Carbon finance

Carbon finance is a component of climate finance that relates to provision of capital for projects through payments that are linked to the delivery of verified emission reductions in a carbon market. The forestry value-chain offers significant opportunity for carbon removals and therefore forestry in general offers good entry point for mobilizing financing for plantation forestry.

While it is reported that Uganda is one of the carbon market frontrunners in Africa, with a total of over 33 million carbon credits issued in Uganda from the Clean Development Mechanism (CDM) and Voluntary Carbon Market (VCM) standards, its participation in forestry sub-sector is still low. In total Uganda issued over 16.4 million kCERs from all its CDM activities in 2022. Out of these, k345 CERs are from one afforestation project and 86 kCERs are from six reforestation projects⁹⁰. Some of the plantation planters have benefited from the Carbon market or are working towards that market, including Busoga Forest Company, New Forest Company, Kijani Forestry and ECOTRUST.

- i. *Busoga Forest Company*: It benefited from and accessed carbon finance as another income stream. The company is an FSC certified. In 2020 it sold its carbon stocks to Swedish Energy Agency, and in 2023 to ACT Commonwealth.
- ii. *New Forest Company*: In 2005, the company signed a deal with Uganda's National Forestry Authority (NFA) to develop 20,000 hectares of tree plantations in the Namwasa and Luwunga forest reserves under the carbon trading program. NFC is currently also benefiting from a new project supported by the Dutch Fund for Climate and Development (DFCD); a 160 million euros (more than 185 million dollars) from Dutch government fund that aims to mobilize private sector

⁹⁰ [The Eastern Africa Alliance on Carbon Markets and Climate, 2022 \(https://easternafricaalliance.org\)](https://easternafricaalliance.org)

finance into carbon projects. The DFCD is managed by investment manager Climate Fund Managers (CFM), NGO Worldwide Fund for Nature Netherlands (WWF-NL) and NGO SNV, and it is led by the Dutch Development Bank, FMO. On August 2020, DFCD approved a 279,001 euros (around 327,000 dollars) grant and WWF technical assistance package for The New Forests Company (NFC), with the aim of developing the final business investment proposal for carbon certification in Uganda, for sustainable smallholder growth and timber market diversification. The funding from FMO will help NFC to scale up NFC's piloted 'payment for ecosystem services (PES)' program at its current plantation in Kirinya, to two additional plantations and the pole plant in Central Uganda in order to improve the risk management by decreasing theft, fire, grazing and cultivation on these properties. NFC's PES program incentivizes the rural communities living in the vicinity of the plantations to take more ownership of their environment by advancing cash payments (debt capacity) on a more regular basis. Hence the PES will help NFC to mitigate its environmental risks as well as operational risks while a more regular income through the PES system will improve the communities' livelihoods⁹¹.

- iii. *Global Woods now Nile Fibreboard*: Global-Woods, a German company, manages a plantation project in Uganda that participates in carbon trading. This project involves planting trees, primarily fast-growing species like pine and eucalyptus, and selling carbon credits in the voluntary carbon market. The project has been certified by various schemes, including CarbonFix, Climate, Community and Biodiversity (CCB) Standard, and the Forest Stewardship Council (FSC), according to the World Rainforest Movement'.
- iv. *Kijani Forestry*: In January 2025, a five-year Memorandum of Understanding (MOU) was signed between the Ministry of Water and Environment and Kijani Forestry, a NGO, to champion the planting of trees to sustain charcoal production in Northern Uganda. Uganda is facing a severe charcoal crisis, with over 94% of the population relying on charcoal and firewood as their primary sources of cooking fuel. Kijani Forestry wants to work with smallholder farmers in Northern Uganda to link their forest reforestation and afforestation to carbon market.
- v. *ECOTRUST*: It has been coordinating Trees for Global Benefits registered by Plan Vivo (since 2003). Trees for Global benefits a cooperative offsetting scheme that links Ugandan farmers (6000+) to the voluntary carbon market through Payments for Ecosystem Services agreements. It is a long-running cooperative carbon offsetting scheme in Uganda which combines community-led activities to increase carbon sequestration, encourage sustainable land-use practices, and provide farmers with performance- based payments.

Barriers to accessing and using carbon finance in Uganda

Despite holding immense potential to drive sustainable development and address the pressing challenges of climate change, the implementation and further strengthening of carbon finance in Uganda face significant hurdles that undermine its effectiveness and scalability. Addressing these barriers requires targeted policy interventions, innovative financial instruments, and stronger partnerships across public and private sectors. This section outlines some of the key barriers that are not only hindering the mobilisation of adequate resources but also impacting on the inclusivity and accessibility of existing carbon finance mechanisms. The barriers include the following:

⁹¹ <https://www.fmo.nl/project-detail/54770>

- i. *High cost of capital and limited financial market development:* Uganda's financial sector struggles to provide affordable capital for green investments, largely due to high credit risk and an underdeveloped market. With average lending rates at 21.3% over the past decade and inflation averaging 5.9%, the real cost of borrowing is prohibitively high, deterring businesses from pursuing green initiatives.⁹² This, paired with the information asymmetry, which widens the gap between lenders and borrowers, and the sector's limited capacity and appetite to offer long-term financing, reduces the efficiency of financing mechanisms, complicating investments in capital-intensive green projects - such as renewable energy or sustainable agriculture.
- ii. *Limited local demand and weak regulatory frameworks for innovative green mechanisms – carbon markets:* While Uganda has made remarkable progress in generating carbon credits, the domestic consumption of these remains negligible when compared to regional counterparts such as Kenya, where mandatory offset requirements for businesses have been integrated to boost local demand (The National Council for Law Reporting, 2024)⁹³. This reliance on international buyers has exposed the market to global fluctuations and price volatility, creating an unstable foundation for long-term growth. Furthermore, the absence of regulation for carbon markets across the country, including weak project validation and monitoring systems, has undermined investors' confidence whilst raising concerns about the reliability of the carbon credits generated within it.
- iii. *Regulatory uncertainty and governance gaps:* Uganda's volatile tax policies and fiscal regime create an unpredictable investment environment. This is particularly problematic for green finance projects which tend to require long-term planning typically spanning 3-5 years. Instability deters potential investors, undermining the viability of blended finance mechanisms, and hampering public-private partnerships. Additionally, the high tax burden – which according to the AfDB (2023) report is estimated at 45-55% of the final product price - further discourages investment by rising operational costs. Governance challenges, including limited institutional capacity, exacerbate these issues, leading to delays and inefficiencies in project implementation.
- iv. *Low awareness and technical capacity shortfalls:* There is significant lack of technical expertise, awareness, and comprehensive understanding of the benefits of green finance among key stakeholders in Uganda, including businesses, financial institutions, and policymakers. This knowledge gap leads to missed opportunities for investments in transformative projects such as renewable energy, sustainable agriculture, and energy efficiency. Furthermore, both public and private sectors often struggle with the technical capacity to design, implement, and manage complex green finance initiatives. For instance, a study by SEED” *Solutions for the Green Finance Strategy 2021-2030 Uganda. Policy Brief. Berlin, Germany*”.⁹⁴ highlighted that many Ugandan institutions lack the expertise to identify and access green finance mechanisms, develop bankable projects, effectively negotiate financing agreements, or evaluate project outcomes, which could support their growth and sustainability efforts
- v. *Delayed implementation of Article 6 of the Paris Agreement.* The Implementation of the relevant clauses in the Paris Agreement still facing an unresolved consensus as explained. For example, in

⁹² IGC, 2024, as cited in AfDB, 2023. *Green finance in Uganda: Unlocking sustainable growth*. Maria Orjuela Pava. <https://www.theigc.org/publications/green-finance-u>.

⁹³ Cited in ‘Green finance in Uganda: Unlocking sustainable growth, Maria Orjuela Pava, 2024

(<https://www.theigc.org/sites/default/files/2024-12/Orjuela%20Pava%20Policy%20note%20December%202024.pdf>)

⁹⁴ <https://seed.uno/system/files/2024-05/Policy-Brief-Prototypes-for-the-Uganda-Green-Finance-Strategy.pdf>

Uganda the relevant frameworks for carbon market activities to implement Article 6 of the agreement are just emerging.

Key lessons: The main lesson is that carbon finance is already accepted at global level mainly due to global commitment towards the Paris Agreement but the barriers at global and local level limit many players in plantation forestry development from participating. Those already in the market need to be further supported, but for many small-holder farmers, carbon finance should be secondary to other types of financing. Carbon finance increases the revenue streams for planters. Finally, accessing carbon finance conveys that the seller has commitment to contributing to climate change goals thereby creating a niche in markets that have responsible green consumerism.

3.8 Joint venture, guarantees, out-grower schemes

Out-grower schemes are an emerging feature of forestry development in many countries, yet the socio-economic value of such schemes is still to be fully assessed⁹⁵. A literature review reveals that numerous strategies have developed for trading wood between growers and the processing industry. For example, some companies obtain their supplies through trading intermediaries (i.e. market agents) and do not have a direct relationship with growers, while other companies lease land (i.e. rent) under contract from landholders for growing trees, or contract farmers to grow trees⁹⁶. Growers have also developed market strategies, such as establishing cooperatives or employing their own market agents, to improve the commercial returns from forestry. In a few examples in this narrative, an out-grower arrangement is defined as a contractual partnership between growers/landholders and a processing company for the production of commercial forest products...

In Uganda, out-growers' schemes are not well developed. Many are not formal and lack the necessary infrastructure to operate as demonstrated by the NFC out-grower schemes. The growers are organized into associations but have no agreements with NFC. They are supported with free seedlings to establish plantations on their farms. Lack of market, limited capacity to manage trees and re-current financial needs force some of them to sell their trees before they mature. Large companies such as Busoga have not seen a need to operate out-grower schemes since they are already able to run their factories with their own plantation stock. Some examples from Africa offer good learning experiences.

- i. *The Swiss Lumber company in Ghana:* The company has a sawmill in Ghana but lacks access to forest areas to obtain an adequate wood supply. While the company has developed plantations on its own land, they will be insufficient to meet the capacity of its sawmill. Consequently, it has developed strategies to attract outgrowers to produce indigenous trees on land which was degraded and producing marginal agricultural yields. Joint ventures are offered to landholders. Farmers receive a lump sum down payment upon joining the venture, an agreed percentage of the timber at harvest, an annual land rent, and first option on the weeding contract for the plantation as a means of creating employment for participating farmers. In return, landholders agree to give the company first option on the purchase of their share of the timber at the prevailing market prices.
- ii. *Sappi and Mondi companies, South Africa:* These companies, which own large pulp and paper mills in the KwaZulu-Natal region have large forest plantation holdings. The interest in obtaining wood products from landholders, arising from problems the companies face in acquiring land or retaining land, with the companies encouraging landholders to produce wood commercially on a small scale.

⁹⁵ <https://openknowledge.fao.org/server/api/core/bitstreams/6781c540-fe62-4e24-8152-3b2ea125f78b/content/y4803e10.htm>

⁹⁶ [Mayers, 2000](#). Company-community forestry partnerships: a growing phenomenon. *Unasylva* (English ed.), 51 (200) (2000), pp. 33-41. ref.15. <https://www.sciencedirect.com/science/article/pii/S1389934124002119#bbb0280>

One scheme for small-scale landholders developed for Sappi and Mondi was initiated in mid-1980. Under this scheme growers established plantations of 1.2 ha on average. Under the contract, growers receive subsidized inputs, loans against the final harvest, and extension advice. In return, they agree to sell their wood to the company. The companies have also been encouraging block plantings on communal land in areas adjacent to their mills where there are existing outgrower schemes.

- iii. *Paper Industries Corporation of the Philippines (PICOP), Philippines*: The PICOP developed an out-grower scheme for local landholders in order to seek additional plantation resources to partially supply pulpwood, as their "concession" forests were becoming depleted. The company was also motivated by the opportunity it would provide to strengthen their relationship with local communities through the sharing of benefits. In 1986, PICOP began to encourage farmers to grow *Albizia falcataria* on eight-year rotations on marginal lands for pulpwood. Under the outgrower scheme, they agreed to provide farmers with planting stock and technical advice and assured a market for the product at a guaranteed minimum price. The company also developed the necessary road infrastructure and a strong extension service. In return, the growers agreed to give PICOP the first right of refusal of the trees, after which they could sell to other buyers.
- iv. *Linking Smallholder Plantations to Global Markets: Lessons from the IKEA Model in Vietnam*⁹⁷: Vietnam's domestic forest plantations currently produce approximately 24 million m3 of roundwood equivalent (RWE) timber annually, with small, household-level producers supplying 16 million m3 RWE (60-70 percent). In this market-driven model, export-oriented wood processing companies enter into legally binding contractual relationships with small household producers. This relationship maximizes the comparative advantage of each party: processing companies provide investment capital, technical capacity, technology, management ability, and a guarantee to buy all (qualified) harvested timber; households provide land and labour. A considerable number of these companies specialize in processing wood products (generally, furniture) for the IKEA Group. Companies and households participating in this model have invested in the production of large-diameter timber (acacia) and achieved Forest Stewardship Council (FSC) certification, which is required by IKEA for all wood products sourced in Vietnam and sold in international markets. The linkage model ensures that IKEA can obtain a stable supply of FSC-certified timber, minimizing the risk of using illegal raw material sources. In collaborating with wood processing companies, plantation households benefit from access to low- or zero-interest loans from the companies for investing in plantations (e.g., buying seedlings or fertilizer)⁹⁸, and are able to sell certified timber at higher prices (10-18 percent) than non-certified timber thus improving household incomes.

Key lesson for Uganda is that for out-growers to succeed, they must be driven by demand. In due course, Uganda's wood processing capacity is bound to grow and this may drive many of the players into engaging into out-grower schemes. Formal agreements and guarantee markets are also prerequisites to functioning of out-grower schemes. The Vietnam IKEA linkage model shows that market driven model could be successful in enhancing plantation development in Uganda and a similar model could be tried by some of the companies that emerging to engage in wood processing, such as the Woodmill Company.

(PDF) [Linking Smallholder Plantations to Global Markets: Lessons from the IKEA Model in Vietnam](#)⁹⁷

⁹⁸ These loans incentivize longer growth cycles and production of logs that are larger in diameter, and higher in economic value, than those typically produced by plantation households.

3.9 Status and trends in financing commercial plantations

Below is a summary of key learning points in relation to financing of small, medium and large-scale commercial forestry from all case study analysis.

- No one size fit all: The case studies reviewed have brought out that there is no one size fit all for plantation forestry development. Each country is challenged to be very realistic in terms of their national level circumstances (i.e. ecological, social, economic, institutional etc.). Despite this reality, there seems to be minimal lessons to pride if any country wants to level plantation forestry as a business, social and environmental case.
- Remaining open to a mix of financing instruments and delivery mechanisms: As it is evident in case studies analyzed, there are many mechanisms/models around the world and in Uganda in forestry and other sectors. They are mainly influenced by two factors which always have to be kept in mind, that is: the interests of the suppliers of financing and the readiness/suitability of those in demand of financing to align themselves to match the interest of suppliers of financing.
- Government has a role to lead: In order to optimize its efforts to mobilize financial resources for plantation forestry from both public and private sources domestically and externally, government needs to make hard choices, that is, prioritizing financing mechanisms that would galvanize the minimal critical level of effort for it to remain keep getting more financing and at the same time serving diverse players in the forestry industry value chain.
- Grants led plantation forestry establishment are not sustainable: Grants under SPGS and other programs like FIEFOC and those led by NGOS have played catalytic role to map Uganda's high potential for plantation forestry development on the domestic and external markets, but it is not enough. Besides, they do not address the limitations underpinned by the study, that is, they don't 'wean the subsector from short term project-based financing'. While this is the case, retrospective performance-based financing/subsidy' under SPGS has demonstrated that grants can deliver some impact to a reasonable level in the value chain that can be leveraged upon by other financing instruments like debt and equity.
- Some financing options like DNS and carbon finance appear new but hold a lot of potential: Countries that have recently benefited from DNS have shown that they can deal with dual problems of indebtedness and developmental challenges like climate change, energy transition and even food security. Similarly, while carbon finance is poorly subscribed in Uganda, countries in Asia and Latin America have gained more from it for forestry. The fact that Carbon trade is part of climate finance and under the binding Paris Agreement, its potential to unlock private finance in future for Uganda cannot be underrated.
- Equity led financing holds a big share in Uganda of about 38%. This model of financing is accessible to very few planters, particularly the big ones, many of whom have also presence in other countries. They also have an advantage of coming with technical expertise and good understanding of the plantation forestry development in the context of global trends and dynamics.
- Importance of establishing or appointing an institution for delivering the financing: Evidence has shown across countries the relevance of this enabling factor because ultimately, an institution or a combination of institutions must provide accountability for efficient and effective use of resources to remain credible for being entrusted with more resources to support multiple beneficiaries.
- Markets for wood products and environmental services: Markets, driven by growing demand for wood products, population growth, urbanization, and global trade, are a significant force behind

the expansion of plantation forestry worldwide. Countries and investors that keep abreast of market dynamics and are able to internalize them in their decisions for mobilising financing remain attractive to a broad range of providers of finance. Further, countries have introduced and implemented PES to protect watersheds, biodiversity and landscape beauty, among others. The PES worldwide are becoming more widespread because of their growing market, with the linkages between buyers (e.g. governments, local bodies, NGOs, philanthropists) and sellers (forest owners, protectors) becoming institutionalized in a contractual market. The objective of these incentive mechanisms is to ensure that the trade in forest ecosystem services reflects their true values, and the managers/owners of forests receive appropriate compensation/reward for their efforts. This market is growing because of global bads like biodiversity loss, climate change and with their associated financing opportunities e.g. Green Climate Fund and Global Environmental Facility.

- Planters in some countries have aggregated their produce to derive multiple benefits: The benefits include a good investment environment gained through lobbying and advocacy; access to technologies for wood processing and value addition; tapping economies of scale in marketing; and improved access to information on emerging opportunities in the industry.
- Broadening the mix of tree species: the forestry sub-sector in Uganda and particularly the commercial forestry is now dominated by planters of eucalyptus and pine perhaps because those are preferences in the local market. However, with lessons from other countries now gained, the global market for timber requires various usable end products from trees including indigenous trees. Uganda will need to invest in understanding the evolving market needs locally and globally and how they could shape investment in forestry and related financing mechanisms/models.
- Commitment to lead, learn and adjust along the way: Evidence has shown that by and large, countries that have made a lot of gains have the following attributes:
 - i. Commitment to choose a financing model(s), try it out, pick lessons and adjust along the way (i.e. Finland, Sweden, Costa Rica, etc.).
 - ii. Government taking the lead in financing because of its many roles countrywide beyond the forestry sub-sector *per se*. This includes the government having comparative advantage with respect to ensuring the following among others:
 - a) Good governance for the whole country.
 - b) Rule of law (so that the conflict resolution is predictably fair and non-discriminatory).
 - c) Stable currency and ensuring macro-economic stability through inflation control.
 - d) Allocating mandates and roles to institutions and ensuring that the institutions are well facilitated to play their part and to be held accountable.
 - e) Taking a lead in opening opportunities for sustainable markets, domestically and externally.
 - f) Ensuring that the public benefits from forestry are not compromised by private benefits from plantation forestry.
- Financing models and/or delivery mechanism change with time: Countries adapt to changing needs and circumstances to enhance the resource mobilization opportunities. For example, Uganda's UDB has established the Climate Financing Facility (Green Bank) to tap climate finance (from multiple sources, and from multiple financing instruments). Further, the government has

reformed the institutional mechanisms for delivery of financing in order to make it to other funders, including those who can offer debt (e.g. transiting from a company by guarantee for UECCC to a company limited by shares; transiting from aBi Trust to aBi company Limited).

- *Multiplicity of players along the wood value chain need diverse but complementary financing instruments:* There are many players all having specialized roles and contributions to provide including information, training, advisory, research, extension, monitoring, market surveys and market intelligence gathering, upstream and downstream value addition, logistical movement and enforcement of standards among others. Understanding how these service providers are organized and strengthening their capacity through financial support and formal organizational set up need to be integral to the design of any financing model. The complexity and diversity of players therefore calls for diverse financing instruments too: grants, debt, equity and performance-based payments.
- *Use of technology to enhance reporting, monitoring and accountability for use of funds:* This has been applied for example in Ghana, Costa Rica, Finland and Sweden.
- *Taking advantage of private and marginal land:* Many countries are providing both the financing and other policy instruments to ensure sustainable plantation forestry development and conservation of natural forests. Uganda too will need to emphasize this strategy in all its financing models because CFRs which are zoned for many purposes will remain the predominant areas for accessing land for new plantations in future.
- *Property rights over forests/land remain fundamental for players participation and assuring them of benefits:* This factor has cut across all countries and case studies where sustained plantation forestry development is increasing, and Uganda too will need to take it into account when developing commercial forestry financing options.

4. PLANTATION DEVELOPMENT ENABLING POLICY, REGULATORY AND PLANNING FRAMEWORK

The uncertainly and risks that come with long plantation gestation periods (*ranges from 10 – 20 years for some species like eucalyptus and pine and longer period for hardwood species*) can frustrate new investments if deliberate efforts are not taken to ensure that the policy and real environment for plantation forest development remains stable, attractive and predictable. Such an enabling environment also requires focused planning and programming; strong institutions for implementation, enforcement and research; and levelled ground for trade and competition among others. In absence of this type of environment, forest plantation financing alone could still continue to limit the growth of the sector. This section accordingly looks at the opportunities Uganda's policy environment offers for commercial plantation forestry and identifies the short comings that the government has to address to make forest plantation sector vibrant.

4.1 Policy and legal regulatory framework

Policy framework: The government has overtime enacted relevant policies in support of plantation forest development and also adopted them to integrate emerging opportunities and to address emerging challenges. The key policies that have been reviewed are presented and their main provisions pertaining to plantation forestry development are found in Annex 2, Table 1. The main thrust of the policies can be summarised in the following objectives:

- i. Prioritize sustainable forest management and conservation to address environmental challenges and promote socio-economic benefits.
- ii. Protect forest ecosystems, ensuring their diversity, and facilitating their continued provision of environmental, social, and economic benefits for both current and future generations.
- iii. Support the integration of climate change issues into planning, decision making and investments in all sectors and trans-sectoral themes through appropriate institutional arrangements and legal framework.
- iv. Achieve an inclusive and sustainable economic growth while promoting low carbon development and climate resilience.
- v. Achieve universal access to sustainable, affordable, and quality energy services for all Uganda, while promoting economic development and combating energy poverty.
- vi. Improve the delivery of public services and infrastructure by leveraging private sector expertise and investment, while ensuring value for public money.
- vii. Ensure the efficient, equitable and sustainable use of land resources for socio-economic development.
- viii. Promote the use and conformity to standards to guarantee quality goods.
- ix. Promote research, product/process development, innovation, value addition and appropriate technologies including ICT.
- x. Achieve gender equality and women's empowerment as an integral part of Uganda's socio-economic development.

The policies reviewed bring out strong indications of the government commitment to improve the **profitability and viability** of the commercial forestry in Uganda. Among others, the policies emphasize: -

- The role of the private sector in both plantation development and private sector resource mobilization.
- The linkage of sustainable forest management and sustainable biomass energy development and utilization.
- The enormous opportunities of forests for addressing challenges of climate change while at the same time unlocking climate finance and carbon market.
- The use of incentives to support plantation forestry.
- The need to recognize forestry beyond plantations to include the ecosystem services they provide.
- The need to equally invest in regularizing the financing mechanisms for ecosystem services (e.g. PES, Biodiversity off-sets).
- The urgency for a Tree Fund to encourage investment and ensure sustainable sources of operational and re-investment funds.

Whereas the above provisions reflect the “good intent” of government for sustainable financing of forestry, they are not enough unless, they are backed up by relevant legislation. They should also be translated adequately into operational plans, strategies and programmes at the local and national levels. This aspect is addressed in the subsequent sections.

Legal framework: Uganda has formulated relevant legislation in support of forestry investments and other matters pertaining to creating enabling environment for investments. Annex 2, Table 2 presents the laws and regulations that have been reviewed in this assignment. They can be summarised as follows:

- i. Some laws have in-built provisions to allow government provide incentives to promote good practice and to tap into new and innovative financing mechanisms (e.g. carbon offsets, PES, carbon finance etc.).
- ii. Some laws strongly give support for recognition and provision of incentives for the public nature of forests.
- iii. Some laws recognize the dependency on wood biomass for energy and call upon government to promote wood fuel plantations and to give the necessary incentives.
- iv. Some of the laws are aimed at implementing government policy targets and enhancing forestry development through provisions of fiscal and non-fiscal incentives. For example, the National Environment Act, 2019 (Article 42), provides various tax incentives, such as fiscal, tax, financial and other instruments to encourage good environmental practices, including the conservation of the environment and natural resources and prevention and abatement of pollution. It also promotes payment for ecosystem services. The VAT Act 2024, on the other hand exempts VAT for processed timber exports.
- v. Some laws have established funds (e.g. Tree Fund, National Environment Fund) with hope that these can support environmental management and tree planting.
- vi. The Land Act in particular recognizes the different land tenure systems in Uganda, with emphasis that land belongs to the people, and that for any land to be acquired for public interest, the affected people must receive their timely and adequate compensation.

National plans and strategies: National plans and strategies relevant to forestry that have been reviewed with aim of assessing the opportunities they provide for plantation forestry development are provided in Annex 2, Table 3. Key highlights from their review indicate the following:

- i. Re-forestation and afforestation on public land, promotion of participation in tree planting on both private and public land and enhancing private investment in forestry, are key components in many of the government national plans and strategies including Vision 2040. They also promote public-private partnerships, direct domestic and foreign investments, and mobilizing affordable credit from financial institutions. Uganda's Vision 2040 in terms of forestry, emphasizes that the people's attitude towards the environment is positive, with strong backing from political leadership.
- ii. Although strategies and plans have good intentions to promote investments including forestry, very minimal efforts have gone towards their implementation, and as a result the desired outcomes have not been realized. However, increment in areas covered by commercial plantations over time is a key success of some of the strategies employed in the forestry sector. Much more could be realized if, for example, the pension sector was leveraged upon to provide sustainable long-term financing with appropriate regulatory support or special purpose vehicles which could aggregate funds from services like pension funds, international institutions, private investors and large-scale projects were established as promoted by the National Development Plan IV 2025/26-2029/30.
- iii. Some of the plans such as the National Forest Plan 2011/12 - 2021/22 have identified various sources of funding to the forest sector, but those proposals are yet to be operationalized. These include taking advantage of long-term loans from pension & insurance funds and financial institutions for forest developers and operationalization of the Tree Fund.

Multilateral environmental agreements: In addition to the national policies and legislation, the government of Uganda is a party to the international agreements and protocols like the Paris Agreement, the Convention for Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), the United Nations Framework Convention on Climate Change (UNFCCC) and the Sustainable Development Goals (SDGs), from which it stands to benefit for financing from implementation of climate change response actions. The Ugandan government has made other commitments to stop deforestation and promote landscape-level forest restoration, such as the Bonn Challenge, and has pledged to restore 2 million of hectares of degraded forests and 0.5 million hectares of agricultural land by 2020, which would support the Uganda Vision 2040 of restoring forest cover to 24 per cent by 2040.

4.2 Institutional framework

The forestry governance arrangements consist of the Ministries, Departments and Agencies, District Local Governments, private sector, forest research institutions, civil society, local forest communities and farmers. The roles and responsibilities of key public, private and civil society institutions relevant to financing commercial forestry are summarized as in Annex 3.

The key institution responsible for policy and legal framework oversight is the Ministry of Water and Environment. Key mandates include developing guidelines and regulations for forestry including on carbon financing (e.g., carbon trade). The ministry is also responsible for revising the national forestry policy and national forestry plan, which are critical in establishing mechanisms of sustainable financing of commercial forestry. The Forestry Sector Support Department (FSSD), within the ministry on the other hand is responsible for mobilizing funds and other resources for the forestry sector as well as promoting public information on forestry in Uganda. The Ministry of Finance, Planning and Economic Development is also responsible in mobilizing local and external financial resources for public expenditure for all sectors.

The NFA is responsible for developing forest plantations and has issued PES guidelines to mobilise private sector finances for forests. At the local level, the Ministry for Local Government implement international and national policies on forests.

Another important ministry in financing of the forestry value chain is the Ministry of Trade, Industry and Cooperatives. Currently, the ministry is supporting presidential initiatives for sustainable wood-based value chain at Mutungo Kigo carpentry village in Kigo. It is also at advanced stages of designing a wood value addition investment fund in collaboration with Stanbic Bank and establishing a private company for wood processing and Value addition (Miti Invest Company). Additionally, it is also at early stages of working with FAO and Global Green Growth Institute (GGGI) to establish Wood dedicated Bank/Special Economic Zone to provide all wood value addition services at one-stop centre. Other players at the national level include banks such as the Uganda Development Bank, which is already implementing a climate finance facility Green Bank under which FIs are already expressing interest.

In the private sector, the Private Sector Foundation is among others an advocacy body that works towards addressing barriers faced by the 340 business associations organized in 12 sectors, including one on Agriculture, Agribusiness and Forestry. The private sector is also comprised of a range of interested parties, a number of whom participate in forestry management along the value chain and are good forestry business entrepreneurs, but many of whom are not able to access finances for commercial plantation development. Other players include the civil society organizations. Key among them is the UTGA, who are currently supporting a few of their members to establish Woodmill Company Limited as a joint venture with a private company.

4.3 Policy, legal and institutional gaps

Below is a summary of the policy, legal and institutional gaps that need to be addressed in the financing of the plantation forestry.

- *Institutional coordination:* The existing policy and legal environment for financing of the plantation forestry could be improved further by operationalization of the Tree Fund, improving inter-institutional cooperation and coordination, and enhancing fiscal, tax, financial and other instruments to encourage commercial forestry development.
- *Private forest incentives:* These include providing grants/incentives, credit and revolving credit, debt, PES incentives to private landowners and there are good lessons for Uganda (e.g. from Costa Rica, Finland, Sweden, China).
- *Regulation of commercial forestry:* Regulation barriers could be overcome by formation of strong associations, cooperatives, apex/umbrella organisations which would systematically lobby for enabling environment for their business in plantation development. Such institutions exist in Uganda; e.g., UTGA, the Tree Growers and Timber Traders Cooperative Societies in Kasese, Mitoma, Rubirizi, Kisoro and Rukungiri Districts, and KIGO Mutungo Carpentry Village Association under the Presidential Initiative for Skilling. Lessons from Sweden, Finland and Tanzania could be used to strengthen them.
- *Law enforcement:* Despite reforms in the forest sector, institutions created have not been able to effectively enforce forest rules and regulations on forest resource use. Deliberate efforts to establish joint strategies for collaboration between institutions are needed. There are good lessons to learn from countries such as Ghana. In Ghana, the Forest Commission registers all formal traders in timber market, who renew their registration subject to confirmation that they did not get involved in illegal activities.

The government should encourage planters to register their forests with the Land Boards so that the government can verify the source of timber (i.e., chain of custody).

- *Timber certification and labelling:* Uganda has a certified National Forest Stewardship Standard, and there are some organizations e.g., UTGA who are using this certification for group members. In addition, there are many planters who have gone an extra mile to be certified under FSC. Government needs to create awareness on these standards with an aim of triggering sustainable plantation development in Uganda.
- *Timber Monitoring System:* In addition to the NFA's law enforcement unit established to monitor timber harvesting and transport, the government could consider additional implementation measures to enhance the enabling environment for plantation forestry development, including:
 - i. Establishing a multi-stakeholder platform to enhance coordination, collaboration and learning (e.g., Mozambique FIP).
 - ii. Introducing use of tracking systems for timber (as is the case for Ghana Plantations Development Fund).
- *Sustainable management of the Central Forest Reserves by the private sector:* Like in many countries the government has promoted private sector participation in plantation forestry by among others giving them permits to establish plantations in a mode of PPP. This enabling policy needs to be promoted further by improving the dynamism in the sector and minimize some of the barriers for the licensed planters in accessing financing (e.g., encroachment in CFRs).

5. FEASIBILITY ASSESSMENT OF VARIOUS FINANCING MECHANISMS

This section analysis the feasibility of various commercial forestry financing options in Uganda. The main models analysed are:

- i. Grants
- ii. National Forest Funds (using multiple financing instruments)
- iii. Debt and grants
- iv. Debt for Nature Swaps
- v. Equity, debt and grant
- vi. Carbon finance

The analysis recognises that there are other instruments or mechanisms countries use in combination with these priority financing models/mechanisms. They include the following: incentives; joint venture/guarantees/out grower schemes; PPPs and impact investments; and non-financial measures e.g., information provision, labelling and product certification. First, we present the criteria used in the analysis and the results.

5.1 Criteria for assessment

The study used both the quantitative method of forced ranking and qualitative method of consultation with Ministry of Water and Environment and other stakeholders to prioritize and select the options from which to develop concept papers. Briefly, forced ranking, also known as stack ranking, is a performance appraisal system that categorizes employees into top, average, and low performers. Managers typically place a certain share of employees into each category. It evaluates employee performance against all other employees in a department or organization and not on individual performance standards⁹⁹

Although forced ranking method is commonly used in appraising and ranking human resource personnel, its core principle of prioritizing and categorizing based on relative performance makes it applicable to other fields like research, sales and feasibility studies. For example, African Development Bank used this method to rank ten financing options on how they met five main criteria of relevance, breadth, investor appeal, practicality and likelihood of achieving desired outcomes. In addition, the Bank complemented the use of the quantitative forced raking method with qualitative consultations with internal staff and other stakeholders to choose three priority options from the ten it had studied¹⁰⁰.

The study used a set of five broad criteria in order to decide on how to take forward the prioritised choices and /or combination of financing mechanisms for purposes of formulating the concept papers presented in chapter 6. The categories of criteria are given in Table 19. The criteria were developed with the client during the study. However, in addition to quantitatively applying the criteria, the study also made further consultations with other stakeholders during the study.

⁹⁹ <https://www.aihr.com/hr-glossary/forced-ranking/>

¹⁰⁰ ADB, 2019. Towards Large-Scale Commercial Investment in African Forestry. A Study for the Climate Investment Funds Evaluation & Learning Initiative (https://blogs.afdb.org/sites/default/files/towards_large-scale_commercial_investment_in_african_forestry.pdf)

Table 19: Broad categories of criteria and their subsets used in ranking the options

Broad categories	Sub categories
A: Potential to incentivize a lot of players (small, medium and large) in plantation development	1. Ability to foster a buy- in across different sizes of players because of promise for good returns and tangible benefits
	2. Potential to release private marginal land for crops for other alternatives (e.g., forest plantations and ecosystem services)
	3. Potential to add value in the form of forward and backward linkages to other existing investments in the wood value chain
	4. Ability to enlist diverse stakeholders in providing services and goods along the whole wood value chain (e.g. competent individuals, research/training institutions, central and local governments, faith-based organizations, contractors, CBOs/NGOs, etc.)
B: Relevancy of the option for transformative action across temporal and spatial scale	1. Great potential to mobilise a lot of affordable financing and in a predictable manner for diverse players-small, medium and large
	2. High potential to overcome inherent barriers for sustainable financing (away from time-bound projects)
	3. Ability to meet unmet needs of the plantation sector across the country
	4. Ability to unlock funding from the private sector (for both domestic and external sources)
	5. Potential to address market gaps of wood products in the country and for exports
	6. Likely to offer multiple uses beyond wood (e.g. biodiversity conservation, climate change mitigation, ecosystem services, social safeguards, etc.)
C: Institutional suitability, sufficiency and predictability of delivering the financing option	1. Ability to implement the option within existing institutional mechanisms and to avoid duplication
	2. Ability to attract non-state actors (i.e., NGOs, private sector, philanthropists) in funding
	3. Whether alternative new structure would be politically saleable, quick to establish, equip, staff and get running.
D: Congruence with national policy, legal and institutional framework	1. Relative degree of enabling policy and legal framework for the feasibility of financing model
	2. Degree of capacity to appreciate and popularise the financing option
	3. Relative degree of acceptance of the option in helping to address illegality, weak standards enforcement and lack of accountability
	4. Quality of existing systems to foster timely monitoring, reporting and verification (MRV) for the use of funds
E: Likelihood to achieve outcomes	1. Potential for transformation (i.e., more uptake by diverse players (including youth and women) per year by species, spatial coverage
	2. Degree of the option in helping the players to penetrate and survive in the market (domestic and external)
	3. Potential to attract infrastructure development, technology transfer and multi-stakeholder capacity building
	4. Broader benefits beyond financial economic returns to plantations including contributions to SDGs

5.2 Prioritization of the financing options studied

Using the criteria presented in Section 5.1 a forced ranking process was adopted. A scale of 1 to 6, with 1 being the best for that criterion and 6 the least but also ensuring that no options take the same score was

used. This ensured that each option was assessed against all other options. The results are given in Table 20 below.

Table 20: Prioritization of the financing option/models studied

Broad criteria	Financing Instruments					
	Grants	NFFs	Debt and grants	Debt for Nature swaps	Equity, debt and grants	Carbon finance
A: Potential to incentivize a lot of players (small, medium and large) in plantation development	2	1	3	5	4	6
B: Relevancy of the option for transformative action across temporal and spatial scale	4	1	3	5	2	6
C: Institutional suitability, sufficiency and predictability of delivering the financing option	4	1	3	5	2	6
D: Congruence with national policy, legal and institutional framework	4	3	1	5	2	6
E: Likelihood to achieve outcomes	4	2	3	5	1	6
Total	18	8	13	25	12	30

As seen in Table 20 above, the options were ranked as follows:

1. National Forest Fund
2. Equity, debt and grants
3. Debt and grants
4. Grants
5. Debt-for –nature swaps
6. Carbon finance

Besides going through the quantitative method above, the study also used a qualitative approach based both on literature review and consultations to further narrow down on options in Table 20. As established under chapter 3, countries (including Uganda) have explored multiple financing mechanisms using diverse financial instruments from public and private institutions and from domestic and external markets. They vary in the affordability ranging from extreme high interest alternatives to no-cost alternatives. They also vary by institutional delivery mechanisms, from government owned and managed arrangements to private arrangements but with possibility in-between for combinations of partnerships. Owing to this factor, the study recognised some features before narrowing down to 3-choices. These features or considerations are;

- i. The options in Table 20 are **not mutually exclusive** (for example, grants have been used alone, but sometimes in combination with other instruments or conditions e.g. performance-based financing, PPPs,).
- ii. Some options have not been used in forestry *per se* in Uganda but based on examples of other countries and in other sectors, they can be used e.g., NFFs/Facilities/Vehicles.
- iii. Some options in forestry and other sectors (e.g. use of debts and grants) have gone an extra mile in mobilising resources because of in-built strategies for resource mobilisation (e.g., use of blending to unlock private sector financing).
- iv. While grants alone would not rhyme well for the sub-sector in ‘weaning from short term project financing’, their use with in-built performance-based financing have shown that the design

- elements of a financing instrument can create impact and open space for other financing instruments in subsequent years and in other phases of wood value chain.
- v. Some options studied (e.g. DNS and carbon finance) are not popular now in the country but from experience of other countries they have great potential for use in the forestry sub-sector.
 - vi. Finally, a review of policy, legal and planning frameworks has shown the openness of the government in exploring new and innovative mechanisms for resource mobilisation in order to implement NDP III and NDP V. These include:
 - Blended financing
 - Special purpose vehicles/ facilities
 - Incentive mechanisms e.g. subsidies, tax rebates and guarantees
 - Payment for ecosystem services and carbon-offsets
 - Climate finance (including carbon finance)
 - Green finance
 - Public –private-community partnerships
 - Unlocking use of pension funds
 - Tapping remittances from the diaspora

Further across all case studies the aspect of institutional delivery mechanism is central because institutions that have created impacts on economic, social and environmental aspects in plantation forestry are those that have had capacity, flexibility, trust and credibility to mobilise financing on one hand and to effectively use and account for it.

The study provided some elements under each choice(s) of financing instruments given in Table 20 in the subsequent Table 21 to further guide decision making with regard to choices to take forward for concept papers.

Table 21: Key elements found in the use of main financing instruments for forestry

Financing instrument	Key elements established
1. Grants	• They greatly reduce the burden of repayment for users/beneficiaries • They invite a lot of competition from potential users • They have been catalytic in opening space for entry of other financing instruments (e.g. debt, guarantees, joint ventures and equity) • They accommodate all categories of players (individual, small, medium and large planters) • They are friendly in responding to both long gestation period and risk of plantation forestry and more so where other friendly alternatives or instruments are lacking • Most grants have been provided by external sources and are sometimes conditioned by external factors • With interest by government to wean the subsector from project-based financing which has predominantly been grant based, this option would not be viable
2. National Forest Funds using multiple instruments	• Were adopted in many countries where forestry is not highly favored in budget • They accommodate many players-small, medium and large • They can use multiple instruments, but some started off by dependency on <u>earmarked revenue</u> from forestry subsector but backed by law • Some have PPP embedded (e.g. by using Government forests areas)

	• The laws establishing them also define institutional mechanisms for the <u>delivery of financing instruments</u>. • They have <u>blended finance</u> strategy or are very flexible to adopt it along the way • Forest products and services supported are well integrated in the market including ecosystem services and tapping carbon finance. • Small and medium players are accommodated in the value chain • They define clear terms and conditions for access to finance • They generally cover all the stages of value including plantation establishment • Would serve as a platform for <u>consolidating fragmented funds</u> – e.g., Tree Fund, Conditional Grants, Environment Fund • They are good in broadening use of financing not for plantation forestry only but also for securing environmental services • They require strong institutions and checks and balances, short of which they are prey to corruption (e.g. Indonesia)
3. Debt mechanism	• Provides alternative to grants for the willing plantation developers • Have been used by planters with grasps of the potential business case of their establishments (e.g. big planters) • It is good for use for some isolated activities in the value chain • It is not inclusive in its use, likely to leave out individual, small and medium planters • May not deliver widespread outcomes and impacts • May have little room for nationwide use and relevance due to current debt level • Government would accept it if only concessionary
4. Debt for Nature Swaps	• It is accommodative for a highly indebted country like Uganda • It can be used as either transition financing option to debt recovery and/or unlocking other friendly financing instruments (e.g., grants) • It supports the government in remaining on course in meeting its obligations (e.g., for climate change action) as government overcomes debt crisis • It can accommodate strategy for performance-based financing (as long as this is negotiated between debtor and creditor country) • It is not understood and appreciated in Uganda
5. Equity financing	• Commands high average in total plantation (38%) • Dominated by very few investors • More financing expected under Africa Forest Investment Forum • Comes with qualified asset managers • Has made breakthrough in tapping carbon finance • Have leveraged on forest product certification to appeal to emerging markets for green products • Out of reach for many other players (small and medium) • The main users of equity are also present in other countries implying that Uganda has to provide attractive enabling environment to remain competitive • It has set the pace for ESG standards and opening up the understanding of carbon finance among some players • Favoured by PPP (particularly with respect to long term leases in CFRs) • The government has not aggressively mobilized it despite its great potential
6. Carbon financing	• It is mainly patronized by big plantation planters able to meet transaction costs for certification • It is also accessible to small holder farmers, particularly under voluntary standards • It adds a stream of income to the players • It commands a very small market share under forestry sub-sector in Uganda • The processes and costs for accessing this finance are generally prohibitive to many players • Its current outcome and impacts are still very limited

5.3 Recommendation of most viable options

The study prioritized four options and packaged them as follows:

- i. Uganda Plantation Forestry Financing Facility using blended finance
- ii. Equity financing for plantation forestry development
- iii. Debt and grant financing for plantation forestry development
- iv. Debt for Nature Swap (DNS) financing for plantation forestry development

Concept papers on these options are presented in Chapter 6.

The following qualitative narrative accompanies each of the four options listed above:

Option 1: National Forest Financing Facility using blended financing: This option offers multiple financing instruments thereby lending itself to already existing diverse categories of players (small, medium and large) and at varying cost of capital. However, while attractive, the current rationalisation of agencies by government in Uganda could deny it a strong institutional delivery mechanism capable of enhancing the much-needed resource mobilisation from multiple sources, a factor that could also frustrate it from generating the needed outcomes. Without a strong institutional delivery mechanism, this option would also lack trust from the NGOs and the private sector to provide their funding.

Option 2: Equity financing: This option was found to be commanding 38% market share. It has been capable of marshalling high technical capacity in establishing plantation forestry to quality standards. However, it has a limitation of being mobilised by very few, multi-national big players who have presence in other countries in Africa like Rwanda, Kenya, Ghana and Mozambique. Starting off with equity capital, these players are capable of accessing debt capital too, and getting providers of grants becomes an additional stream of financing but which they do not always rely upon like the small and medium players. Further, the mobilisers of equity financing do not have strong established out grower schemes with small or medium developers and because of that, it cannot be assumed that they would channel grants and concessionary debt to small and medium players. For these reasons, the options for equity financing and debt and grants have been made distinct.

Option 3: Debt and grants: This financing option has grown and spread over years among financial institutions. While the big plantation developers also continue to access this financing (as add-on to their equity), it is becoming attractive too for small and medium players especially those starting to harvest their stock and who have no capacity to mobilise substantial equity capital for plantation development in a predictable manner.

Option 4: Debt for Nature Swaps: This option recognises that Uganda now is greatly indebted and wants to scale down further borrowing. However, based on its commitment to pursuing its developmental-cum-conservation objectives, and borrowing from the recent pattern in other countries of using this option to raise financing, the team included it as an option for the government to explore provided it can secure willing creditor countries to support it in this option.

6. CONCEPT PAPERS FOR SUSTAINABLE FINANCING OF PLANTATION FORESTRY

This chapter presents the concept papers of the four prioritized options (National Forest Financing Facility, Equity funding, Debt and grants, and Debt for Nature Swaps) with grants integrated in the performance-based financing (debt and grants option). The following considerations should be included in each of the concepts during the design stage: a focus on market driven strategies (i.e., consideration of the needs of the market); innovative business strategies (including how funds would be managed) and integration of PES and carbon financing. Concept papers on these options (which could further be developed into proposals) in order of their priority are presented below under the following headings:

1. Description of the financial option
2. Key objectives
3. Intervention areas
4. Potential outcomes and impacts
5. Implementation arrangements
6. Assumptions and risks
7. Enabling conditions
8. Budget implications

6.1 Concept Paper 1: Uganda Plantation Forestry Financing Facility using blended finance

6.1.1 Description of the financial option

The financing option advanced by this concept paper is the National Plantation Forestry Financing Facility using multiple financing instruments in a blending strategy. Table 22 provides examples of the type of financing instruments the government could package in creating a pool of resources to provide to plantation investors - small, medium and large at concessionary rate. The study prioritized this option (**first priority**) because Uganda already has lessons to rely on from its past similar models in agriculture, agribusiness, finance, climate change, energy and insurance. Table 23 provides some of the examples the study came across showing that Uganda has been able to raise private capital where it played a catalytic role in committing public financing. As the financing option, the choice combines public and private capital to address limited financing on the part of government and it will reduce skepticism about the potential viability of the plantation forestry investments on the part of the private sector. In short, at policy level and operational level, this financing mechanisms would be understood.

Table 22: Type of financing instruments and non-financing instruments the government could blend for Uganda Plantation Forestry Facility

Type and examples of instruments	Definition
A: Financing instruments	
1. Grant	Capital which is paid in without any expected repayment or compensation over a fixed period of time. It could include money for technical assistance or project preparation to bring a project to bankability which is especially important for pipeline development in less mature sector and risky investments.
2. Debt	Debt involves a financial transfer from one party to another, where the receiving party

	has a contractual obligation to repay in the future at agreed interest rates.
3. Equity	Equity is capital the government could use to purchase assets in forestry investing companies or invest in their projects and operations where it would help address some financing and operational gaps.
4. Guarantees	Guarantees are a form of credit enhancement, strengthening the creditworthiness of the investment because of the promise from the guarantor to complete performance in the event of default by a borrower.
5. Insurance	Insurance provides protection by promising to compensate for a specified loss or damage in return for payment of a specified premium.
6. Performance-based financing/contingent financing	Instruments that provide incentives and disincentives to achieve desired outcomes or results according to agreed terms under contract.
B: Non-financial instruments	
1. Technical support	This could support design, implementation, monitoring, reporting and verification.
2. Certification and labeling of forest products	This would help to create a niche for players following good practices in the domestic and international markets.

Table 23: Examples of blending from different financing instruments in Uganda

Mechanism	Sub-sector	Financing instruments blended and their providers
1. Climate Finance Facility at UDB	Climate change	• <u>Public</u> appropriations (domestic and external) • <u>Private</u> appropriations (domestic and external)
2. Agricultural Credit Facility (ACF) under Bank of Uganda (BOU)	Crops and Livestock	• <u>Grants</u> from the Government of Uganda (GOU) • <u>Loans</u> from commercial banks, MFIs, Credit institutions and Uganda Development Bank
3. Uganda Energy Credit Capitalization Company (UECCC)	Energy	• <u>Equity</u> from Ministry of Finance, Planning and Economic Development (MFPED), Ministry of Energy and Mineral Development (MEMD) and Uganda Private Sector Foundation (as shareholders) • <u>Grants</u> from World Bank/ Global Environment Facility (GEF) • <u>Grants</u> from the Government of Netherlands
4. Agricultural Insurance under Uganda Agricultural Insurance Scheme (UAIS)	Agricultural insurance	• <u>Grants</u> from GOU • <u>Debt</u> from consortium of 13 insurance companies
5. Climate Financing Facility (Green Bank) at Uganda Development Bank	Financial	• <u>Grants</u> from National appropriations under the budget from GOU to UDB • <u>Grants</u> from public appropriations (external, bilateral, regional, DFIs, NDBs etc.) • <u>Debt</u> from private sources, domestically and externally
6. Agribusiness financing under GROW Project	Agribusiness	• <u>Grants</u> from GOU • <u>Debt</u> from the five participating banks (Post Bank, Finance Trust Bank, Centenary, Equity and DFCU Banks)
7. aBi Finance	Agribusiness	• <u>Grant</u> from GOU • <u>Debt, guarantees and grants</u> from DANIDA, IFU and EU

The National Plantation Forestry Financing Facility is relevant to Uganda because of many reasons:

- i. The government has in the past benefited from project-based funding, especially using grants but the time-bound nature of projects and their financing do not create the certainty and predictability of financing of forestry sub-sector.
- ii. It provides a middle ground for the government in sustaining and expanding investments in plantation forestry (at reasonably low cost because of blending) at a time when government has other pressing financing needs for the whole economy on one hand and when it has taken a decision to slow down on borrowing at high commercial interest rates to manage its external debt.
- iii. It is one of the financing models the government has lined up among the priority strategies for resource mobilization to fund the National Development Plan IV.
- iv. Pooling public and private financing instruments from diverse sources in Uganda and blending them to support plantation forestry development under this concept paper will directly address two of the main barriers slowing down commercial plantation development in the forestry sub-sector: (i) high perceived and real risk in the sub-sector and (ii) poor risk-return relationship. Figure 16 shows how the use of catalytic or public capital can make certain projects that are currently not attractive to commercial investors investable for them. Investments to the right of or below the market line are poorer investment alternatives than others in the market. It would not be rational for a commercial investor to invest in a project with a risk-return combination like the one seen in point A, which has high risk and low expected return relative to alternative investments available in the market. This kind of investment may still be socially desirable and boost development, thereby appealing to investors with a strong impact orientation but it would be unlikely to capture the interest of mainstream commercial investors, thereby making it difficult to scale.

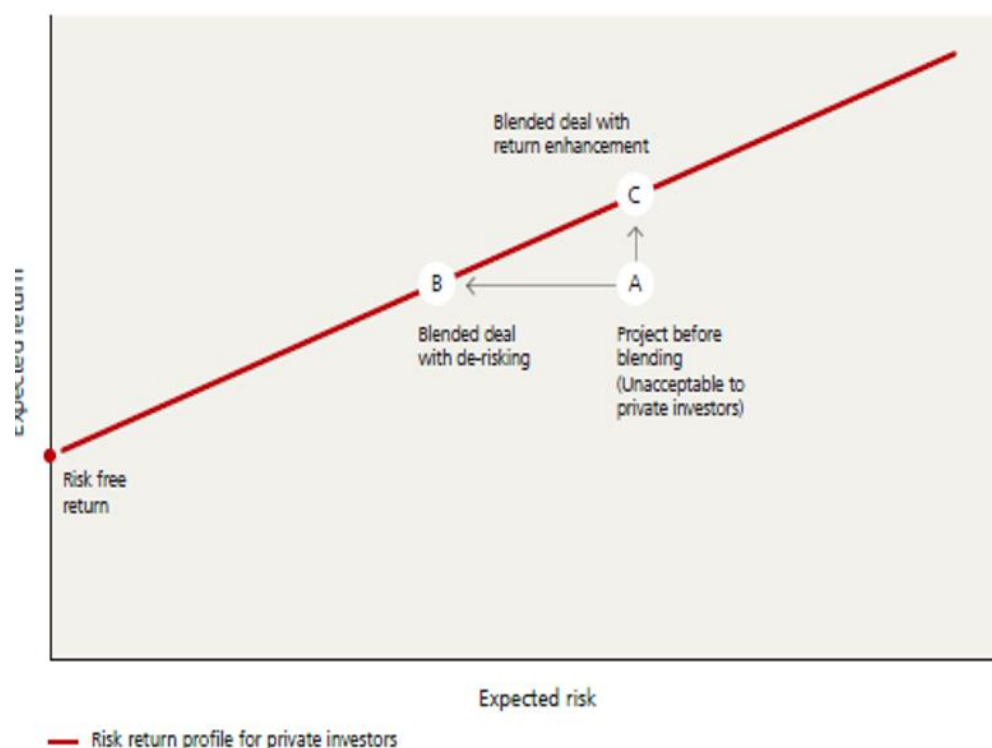


Figure 16: Illustrating how blended financing strategy makes risky projects attractive

6.1.2 Key objectives

The objectives of **Uganda Plantation Forestry Financing Facility (UPFFF)** are to provide:

- i. Predictable and affordable financing assistance for the development of commercial forest plantation for wood production for both domestic and external markets.
- ii. Technical advice and quality support services to persons involved in plantation forestry development on specified conditions.
- iii. Create public awareness on wood products standards and sustainable procurement in order to promote sustainable plantation forest development, green consumerism and exports to emerging markets.
- iv. Incentives to assist informal actors, including artisans, traders, transporters, contractors, nursery operators to register with the Ministry of Water and Environment¹⁰¹.
- v. Standards, systems, guidelines and codes of practice by MWE and to enforce them for use by the private sector with a view of making Uganda's wood products very rewarding and competitive.

6.1.3 Intervention areas

Generically, the utilization of financing under NFFs consists of four basic components: 1) identifying priority areas; 2) prioritizing eligible beneficiaries and activities; 3) deciding on types of assistance; and 4) developing a detailed fund access (project solicitation and fund granting) mechanism (FAO,2015)¹⁰². Below we outline potential support areas where that support should be directed.

- i. Development of forest management and business plans.
- ii. Procuring quality and raising quality seedlings.
- iii. Plantation establishment and management.
- iv. Training and equipping players in the value chain.
- v. Support procurement and efficient use of appropriate technologies for use by players along the value chain.
- vi. Support studies to identify domestic and external markets or to address other barriers.
- vii. Support research (e.g. emerging pests and diseases, new species, impact of climate change on plantations, species site matching, etc.); and
- viii. Support trade groups and platforms to constructively lobby and advocate for enabling the environment in the sector.
- ix. Support for indirect values (e.g. watershed protection, carbon storage, nutrient recycling) and existence values (e.g. biodiversity and wildlife conservation).

The above interventions areas are relevant because of the following reasons:

- i. The intervention support areas augment each other thereby fostering both forward and backward linkages.
- ii. Presently, some of the activities have not obtained the level of support needed (e.g. research and innovation, market studies, standards enforcement, etc.).
- iii. Without quality seeds from certified orchards, there could be risks of raising poor plantations.

¹⁰¹ In a similar manner as is done by Timber Industry Development Division of the Ghana Forestry Commission

¹⁰² FAO. 2015. Towards effective national forest funds, by Matta, R. FAO Forestry Paper No. 174. Rome, Italy

- iv. Climate change is bringing new risks (e.g. pests and diseases, wildfires, floods and related impacts, etc.).
- v. Formalization of the players and registering them will curb illegality which is undermining sustainable investment.
- vi. The players in the subsector and their organizations would be the best champions to advocate for enabling the environment.

With the above in context, the categories of beneficiaries are the following:

- i. Private small, medium and large planters accessing land in CFRs.
- ii. Individuals, small, medium and large planters on private land with verified security.
- iii. Research and training institutions providing supportive services.
- iv. Certified contractors and service providers.
- v. Community Based Organizations (CBOs), Non-Governmental Organizations (NGOs) and other organizations providing specialized skills or inputs (e.g. creating awareness, lobbying for marginalized groups, policy advocacy, etc.).
- vi. Regulatory agencies (for monitoring compliance with standards and regulations).

6.1.4 Potential outcomes and impacts

The study has borrowed lessons from Uganda (and elsewhere) where the governments' commitments to attracting investments have been shown in sectors that have high upfront costs and/or risks. In those cases, government has de-risked financing mechanisms in order to raise and unlock capital from the private sector and other funders from domestic and external sources.

The four broad categories of expected outcomes/impacts and their brief explanations are given below:

- *Financial additionality:* This includes the mobilization of additional resources with an aim to improve the de-risk return profile of commercial plantation investors in order to crowd-in commercial finance. By government creating such an environment of lowering the risks in the forestry sub-sector, it will incentivize existing investors to mobilise and invest more in the sector or to attract new entrants/investors.
- *Development additionality:* This includes infrastructure services created, alignment and ownership, additional capacity for plantation forestry and institutional players, all resulting in positive impacts (socio-economic, environmental, technological etc.) in the sub-sector.
- *Market development:* This includes revolving use of funds, replication and up scaling of plantation forestry investments, market growth and dynamic participation of players in wood value chain.
- *Sub-sector effects:* This includes renewable energy development, social services like health, education and water and sanitation and improvement of community roads.

6.1.5 Implementation arrangements

The study has established different policies and practices that government could consider in its final decision for the choice of the financing delivery mechanism. They are:

- First, there was strong echo from some respondents that to the extent possible, there shouldn't be duplication of effort.
- Second, the financing option should recognize that the government is now implementing the programme for the rationalization of agencies.

- Third, building on examples from other countries and/or sectors, the study should not shy away from exploring new innovations.

The study considered two main scenarios from which further discussion would be needed. In the first scenario, the government could use one of the existing institutions.

Going by the above guidance, the study gave the merits and the demerits of potential financing delivery mechanisms/institutions to consider below:

Table 24: Merits and demerits of potential institutions for delivery of financing

Possible institution for delivery of financing	Its merits	Its demerits
Bank of Uganda	• It would build on experience of administering ACF and partnering with financial institutions • Forestry plantation could be integrated into agricultural facility	• It may not be willing to take on UPFFF • It will provide wholesale financing packages and may not easily lend itself to providing other support services like training and technical advice
Uganda Development Bank	• It would build on its experience of setting up the Climate Financing Facility (Green Bank), and lending to a few large timber planters • Government periodically raises the equity of UDB to make it attractive to borrow from countries and international banks • Forest investments too have direct contribution for climate change investments • It is already partnering with financial institutions in delivering climate finance	• Forestry financing could be overshadowed by climate financing, which has more funding than forestry unless there is deliberate effort in raising its visibility too among the potential beneficiaries • It would be seen to favour the big planters at the expense of medium and small planters who are the majority players in the country •
Microfinance Support Centre	• It is also a government institution with focus on developing and administering financing products countrywide and also acts as intermediary for some of the government programmes • It has 12 regional offices, and could be within reach of potential beneficiaries	• It has low image when it comes to follow up and ensuring recovery of funding to very many SACCOs

In the **second scenario**, the government can exercise flexibility to create institutions in which it partners with other providers of finance not willing to use government systems because of bureaucracy or lack of technical capacity. This mode of delivering blended financing has been seen in case of aBi Finance Ltd and Uganda Energy Credit Capitalization Company Ltd. Under the same scenario, the government could

operationalize the dedicated Tree Fund, aiming to tap into many benefits such funds have delivered to their countries for plantation forestry development and forest conservation in general. Alternatively, government could combine a Tree Fund with the MITI Invest Value Addition Fund which Ministry of Trade, Industry and Cooperatives is studying with a view of financing value addition in forestry. Already, the study found that the government has supported the carpentry operators to form an association called KIGO Mutungo Carpentry Village Association to benefit from financing and other technical assistance under the Presidential Initiative for Skilling. It has a membership of over 700 members

As already alluded to, this implementation arrangement has the following merits:

- i. Attracting funders more comfortable with the arrangement than alternatives
- ii. Recruiting technical staff who understand and can drive the business of forestry investment in the field and in policy engagement
- iii. It would give forestry business visibility for further support in its institutional home
- iv. It would be very accommodative of the small, medium and large planter

Figure 17 illustrates the two scenarios for potential institutional arrangements to choose from.

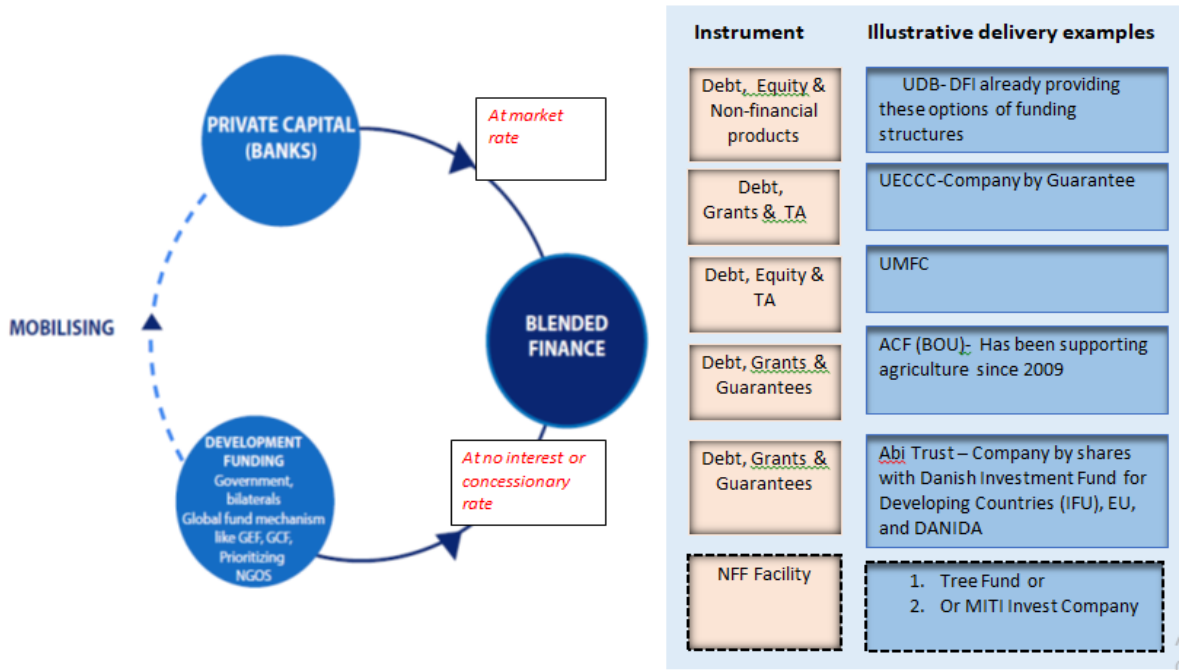


Figure 17: Blended financing models in Uganda

6.1.6 Assumption and risks

The main assumptions in the implementation of this option are the following:

- i. The financing instruments the government chooses to blend make the risk-return profile of plantation forestry development more attractive than alternatives.
- ii. The projects funded are successfully implemented to give credibility to the financing model.

The main risks and their mitigation measures under this option are presented below:

Table 25: Risks and mitigation measures of the proposed financing option

Risk	Description	Mitigation measures
1. Regulatory risk (as seen from the national level)	National Development Plan (NDP) IV states that investing pension funds for implementation of NDP IV using some financing models like blended finance/SPVs may require appropriate regulatory framework	Government should study how to reform the pension fund (NSSF) with a view of creating enabling environment for it to play a part in investing in blended financing for forestry
2. Regulatory Risk (as seen at global level)	The mandate of many investors limits their ability to invest in developing countries. The median sovereign risk rating in the 142 countries “B”	Government and potential equity investors should adopt a multi-stakeholder approach to building mutual understanding on blended finance, say, by establishing a multi-stakeholder platform (e.g. Malaysian Joint Committee on Climate Change)
3. Inadequate information on default and recovery rate	This arises when the ratings given to projects and institutions domiciled in developing markets may not reflect the reality of investing in these markets	The government should work with practitioners like (DFIs and MDBs) to showcase the actual risk of investing using equity (e.g. database maintained by the Global Emerging Markets)
4. Bias towards business sense for the intended impacts in using blended finance	This may arise when much of the TA support, advisory services and feasibility studies consider the business case for those providing different financing instruments without also being cognizant for the need for also on the ground social and environmental impacts and benefits	- Integrate Environmental and Social Governance (ESG) standards and procedures in the design and utilization of blended finance - Negotiate fair trade-off choice among those willing to provide different financing instruments
5. Implementation failure of the blended finance delivery institution/structure	This may arise if the delivery institution of the blended finance fails to effectively use the finance due to weak mandate, oversight systems, capacity and bureaucracy	Assess the institutional fit for blended finance with a view of giving strong mandate (through legal means) with in-built governance standards for MRV of utilizing blended finance

		▪ Embed good governance principles in the agreements for using blended finance
6. Delayed international reporting standards for carbon finance	▪ Currently, venture capital does not incorporate carbon finance and this may affect/delay flow for forestry sub-sector	▪ The standards are being developed but this may take time
7. Political Risk	▪ This may occur where a provider of financing instrument (e.g. equity) may use it for gaining an advantage (e.g. land access) which could pose a socio-cultural and political risk	▪ Subject use of some financing instruments for their potential risk before accepting them

6.1.7 Enabling conditions

The key enablers are the following:

- The government already has gained experience in this type of financing model as shown by examples in Table 22.
- The government also has interest to use blended financing approach for mobilizing resources for implementation of NDP IV using blending strategy.
- The National Forestry and Tree Planting Act already provides for the establishment of a Tree Fund (should the government consider using it as the delivery mechanism).

In the very short run, the government needs to withdraw the ban on timber exports and to provide better guidance as it has been demonstrated in other parts of this study that the ban has affected exports, the foreign exchange earnings and is undermining import substitution efforts of the government in the subsector. Finally, government would need to embrace the principles in Table 26 to effectively implement the Uganda Planation Forestry Financing Facility as a blended model.

Table 26: Key principles to obey in sustaining blended financing under UPFFF¹⁰³

Principle	Key standards to achieve
Principle 1: Anchor blended finance use to a development rationale	a) Use development finance in blended finance as a driver to maximize development outcomes and impact (e.g. NDP IV targets, Sustainable Development Goals - SDGs)
	b) Define development objectives and expected results as the basis for deploying development finance among the parties
	c) Demonstrate a commitment to high quality in design and implementation of projects
Principle 2: Design blended finance to increase the mobilization of commercial finance	a) Ensure additionality for crowding in commercial finance
	b) Seek leverage based on context and conditions.
	c) Deploy blended finance to address market failures, while minimizing the use of concessionality.
	d) Focus on commercial sustainability.
	a) Support local development priorities.

¹⁰³ https://www.oecd.org/en/publications/oecd-dac-blended-finance-principles_dc66bd9c-en.html

Principle 3: Tailor blended finance to local content	b) Ensure consistency of blended finance with the aim of local financial market development
	c) Use blended finance alongside efforts to promote a sound enabling environment
Principle 4: Focus on effective partnership for blended finance	a) Enable each party to engage on the basis of their mandate and obligations, while respecting the other's mandate
	b) Allocate risks in a targeted, balanced and sustainable manner.
	c) Aim for scalability
Principle 5: Monitor blended finance for transparency and results	a) Agree on performance and result metrics from the start.
	b) Track financial flows, commercial performance, and development results
	c) Dedicate appropriate resources for monitoring and evaluation
	d) Ensure public transparency and accountability on blended finance operations.

6.1.8 Budget implication

The budget to implement this option would depend on many factors including the types of blended finance that the government may consider targeting. The study proposes the following set of activities to take forward the final discussions of the option, with a view to developing this concept into a proposal with a detailed budget:

- i. Raise awareness on the option to enlist buy-in from diverse stakeholders (public and private).
- ii. Choose and design the financing delivery mechanism and define its mandate and terms and conditions.
- iii. Engage development partners to get their support and advise.
- iv. Engage the financing institutions to get other support and advise.
- v. Establish a multi-stakeholder committee and support it to engage other stakeholders nationally and regionally to promote this option.

6.2 Concept Paper 2: Equity financing for plantation forestry development

6.2.1 Description of the financial option

Equity investments involve buying a share of a company with the expectation of receiving a share of earnings when it becomes profitable. Equity investments can be made at market-based rates, which match other prices in the market, or at concessional rates, which are significantly lower than others available on the market and are offered with more favourable terms. Equity investments often operate in the form of funds and investors obtain returns through dividends or capital gains from the sale of equity stakes. Equity is well suited to projects with revenues expected in the medium or long term. Through equity, public financing can support projects' upfront investments, reducing risks for private investors and therefore leveraging additional finance, while becoming a source of public income via returns on investments.

Equity financing of forestry plantations in Uganda is highly relevant, offering a sustainable solution for economic development, environmental protection, and social well-being. Uganda has greatly benefited

from equity financing for plantation development especially by big planters including the multinational companies and taking advantage of access to land in Central Forest Reserves (Table 27).

Table 27: Forest plantation companies who have attracted equity as the main financing instrument in Uganda

Company	Estimated acreage
Busoga - Green Resources	9,134
Global Woods (Nile Fibreboard)	10,299
New Forests Company	20,125
Nile Ply	4,866
Total	44,426

However, the main problem now is that government has not fully grasped the full potential of this form of financing for plantation forestry for it to raise additional equity for the future. For example, there are 66 retirement benefit schemes¹⁰⁴ in the country and some of these could be mobilized to participate in forestry financing and investment. Secondly, there is concern that government is falling short of the adequacy and predictable enabling environment to maintain this type of financing flowing into the country and attract new players alike. This is a big problem because the big planters also happen to have presence in other countries, implying that they can compare the relative profitability potential of their investments across countries. Going by the recent ban on timber exports by government, some of the investors (e.g., Criterion Partners Africa) who supported plantation estates development using equity financing have sold their interest and relocated to other countries. Taking a case of a ban on exports of unprocessed timber exports in May 2023, the study team found that it has greatly affected the volume and value of exports as shown in Figure 9 (Section 3). On the other hand, when one looks at the trends in wood products imports and values between 2014 and 2024, one realizes that owing to the imposition of import duty of 40% in 2018, the government would have been on a good path to registering positive trade balance if it had not destabilized the export regime suddenly. Mubende District for example, reported loss of revenue and employment because the 8 companies that established their processing facilities (seven of which are of Chinese investors) have been disrupted.

6.2.2 Key objectives

The project objectives are to:

- i. Ensure a sustainable supply of legal wood raw material from planted forests, while promoting green growth wood industry development (catalyzing inclusive investments in sustainable wood-based value chains, enhancing processing capacity and market demand for wood products).
- ii. Establish a sustainable commercial timber resource, creating jobs, and supporting local communities.
- iii. Address deforestation by providing a sustainable source of timber while also contributing to the local economy and social well-being.
- iv. Establish sustainable forest plantations for long-term growth and value creation for sustainable development.
- v. Generate good returns on investment and build lasting relationships with surrounding communities through equitable benefit sharing.

¹⁰⁴ <https://urbra.go.ug/licensed-retirement-benefits-schemes/>

6.2.3 Intervention areas

Below is an outline of potential support areas where that support should be directed:

- i. Plantation establishment for timber production and value addition to various products, including poles, structural timber, and pallets.
- ii. Conservation and sustainable management of natural ecosystems and areas within the plantation areas.
- iii. Carbon sequestration and timber production.
- iv. Sustainable forestry practices, including obtaining Forest Stewardship Council (FSC) certification and implementing best environmental and social safeguard standards.
- v. Renewable energy generation through biomass projects.

Equity finance is justified for forest plantation development as shown by the case of New Forests Company, Busoga Forestry Company and Global Woods (Nile Fiberboard Ltd) in Uganda because it aligns with the long-term, capital-intensive nature of forestry, providing stable and predictable funding to support sustainable development. This approach also encourages long-term commitment from investors, matching the extended growth and harvesting cycles of trees. Furthermore, equity finance can facilitate the development of local communities and the wood sector through the long-term benefits of sustainably managed forests.

6.2.4 Potential outcomes and impacts

Plantation forestry financed under an equity model can yield outcomes across economic, social, and environmental categories. Expected economic impacts include increased revenue generation, reduced reliance on imported timber, and economic diversification. Social impacts include increased employment, particularly in rural areas, and improvements in local livelihoods. Furthermore, environmental impacts include increased carbon sequestration, soil conservation, and biodiversity enhancement.

6.2.5 Implementation arrangement

In this model, the main implementers are the **mobilisers of the equity capital**. However, the government needs to support them in form of the following type of activities and mechanisms:

- v. **Public-private-community partnerships**, whereby government would give permits to CFR land and also encourage the equity providers to enter into formal arrangements to use community land (where it exists) or sign out grower agreements.
- vi. Assessing the **incentive regime for plantation forestry** relative to other countries and updating Uganda Investment Code and/or recommending new incentives.
- vii. Fighting illegality in wood trade.
- viii. Fighting encroachment in CFRs.
- ix. Supporting implementation of responsible procurement within the Public Procurement and Disposal of Public Assets (PPDA) Act.

6.2.6 Assumptions and risks

Assumptions

- i. Readily available land for and Use: Plantations will be established on land that is readily available and legally acquired, with minimal disruption to commercial plantation forest farmers from encroachers and land invaders. The challenge is commercial plantation forest farmers and Local communities may have competing claims to the land, leading to conflicts and land disputes. Analysis, thorough assessment of land tenure systems and consultations with local communities are crucial to ensure land acquisition is fair and equitable.
- ii. Environmental Sustainability: Plantations will be developed with minimal environmental damage, and responsible environmental management practices will be followed. The challenge is deforestation; habitat loss and other environmental impacts can occur if proper environmental and social safeguards are not implemented. Analysis, thorough environmental and social impact assessments and robust environmental management systems are essential.
- iii. Social and Economic Benefits: Plantations will generate significant social and economic benefits for local communities, including increased employment, income, and access to infrastructure. The challenge is these benefits might not be evenly distributed, and the overall impact on local livelihoods might be uneven, with some communities experiencing negative consequences. Analysis, social impact assessments and community consultations are crucial to ensure that benefits are shared equitably and that potential negative impacts are minimal.

Risks

Equity financing, while promising, comes with risks that investors and developers and government must address. The main risks and their mitigation measures for Equity option are presented below:

Table 28. Risks and mitigation measures of the proposed financing option

Risks	Description	Mitigation measure
1 Human rights abuse and land conflicts	This can arise if the big investors displace the indigenous people or communities from the land and natural resources, they have traditionally depended on for their livelihoods	Carry out Environment and Social Impact Assessment (ESIA) and subject its approval to public hearing in the area where equity financing is going to be used for plantation forestry development
2 Market risks	This can arise because of changes in trade regimes between countries and/or failure to address market distortions created by say, illegal products on the market	• Broaden product development • Support market trends and intelligence studies • Fight illegality in the sub-sector
3 Degradation risk	This can arise when plantation forestry with fast growing species displaces woodlands which have their own benefits to ecosystems	Set standards for use of land for plantation forestry and enforce them for potential planters
4 Technical Risks	• Limited capacity to implement specific silvicultural activities, such as planting, weeding, and thinning, can lead to reduced growth and timber yield. • Extreme weather events, droughts, and diseases can damage plantations and affect timber production.	• Ensure that staff are professional and have the skills (i.e. silvicultural practices, pest and disease control) and training to manage plantations, • Develop plantation strategies that are resilient to climate change, such as selecting drought-resistant tree species and ensuring water conservation

	Invasive species and diseases can significantly damage plantations and reduce timber quality.	- measures. - Implement a comprehensive pest and disease management program that includes early detection, biological control, and, when necessary, chemical control.
5 Operational Risks	- Investors may not be able to meet unforeseen financial obligations due to changes in interest rates or external other factors. - Fraudulent activities or illegal acts within the project. - Land tenure problems can disrupt plantation development and threaten investments.	- Develop a robust financial plan that anticipates potential financial risks and allows for contingency planning. - Conduct thorough due diligence to assess the risk of fraud and malfeasance. - Land Title Security: Ensure that land titles are secure and properly documented before commencing plantation development.

6.2.7 Enabling conditions

Long-term security of and tenure of land or user rights has to be in place, and land can be used as collateral. Incentives alone cannot overcome weak governance; thus, improved state performance and delivery have to be locally generated and owned; and appropriately skilled people to deliver forestry management and development plans. This demands strong government support and financial Investment, and local community participation and involvement.

Uganda's policy and Vision 2040 in terms of forestry, emphasizes that the people's attitude towards the environment is positive, with strong backing from the political leadership at all levels:

- Sustainable development is achieved through preservation of natural resources and restoration of high value ecosystems (forests, wetlands, range lands and catchments) through re-forestation and afforestation on public land.
- Promoting participation of the population (men, women, youth, children, and persons with disabilities) in tree growing on both private and public land.
- Enhancing private investment in forestry through promotion of commercial tree planting on private land and adoption of green agriculture practices. This will lead to restoration of forest cover from the current 15 per cent of a total land area to 24 per cent.
- Country's forestry estate is sustainably managed to provide economic, ecological and social benefits to the people of Uganda, and make a contribution to the aspirations of the global community.
- The PPDA Act promotes and supports responsible procurement.

The National Development Plan (NDP IV) 2025/26 – 2029/30 prioritizes forest sector development through a multi-faceted approach encompassing sustainable management, economic incentives, and environmental protection, with the respective Ministries, Departments and Agencies like National Forestry Authority, Private Sector, District Local Governments and Local Communities playing a key role. The goal of the plan is to promote rural and urban plantation development, support sustainable forest management practices, and integrate environmental management in various interventions. Forestry priorities interventions include:

- Protecting rangelands, mountain ecosystems, threatened/endangered species, and natural habitats.
- Establish dedicated fuelwood plantations to contribute to achieving or exceeding net biomass surplus levels.
- Community support and participation in forest sector development, including the management of invasive alien species and the protection of rangelands.
- Leveraging technology to strengthen enforcement capacity for improved compliance with standard agro-forestry practices is also a priority.

- v. Improve the management of districts and private forests, as well as integrate environmental management in disaster and refugee response interventions.
- vi. Formulate economic and social incentives for plantation forests, promoting their development and adoption.
- vii. Restore and maintain over 100,000 hectares annually of degraded forests landscapes across the country, and protect over 1.8 million hectares of the permanent forest estate (in Protected Areas).

6.2.8 Budget implication

The study proposes the following set of activities to take forward in the final discussions of the option, with a view to developing this concept into a proposal with a detailed budget:

- i. Identify CFRs and private land where equity financing would be suitable, and define terms and conditions, and required enabling environment.
- ii. Identify potential users of equity (in and outside the country) and terms and conditions that may be required for them to get engaged.
- iii. Raise awareness on the option to enlist buy-in from the identified users.
- iv. Establish a multi-stakeholder committee and support it to engage other stakeholders nationally and regionally to promote this option to equity investors if selected.

6.3 Concept Paper 3: Debt and grant financing for plantation forestry development

6.3.1 Description of the financing option

As described in Chapter 3, there are many financial institutions in the country that are financing some of the players in plantation forestry. They are building on the success of SPGS out of using grants. These institutions both on the supply side and use of debt need to be further supported to access debt but remaining open to accessing grants and other incentives. Grants alone may not suffice because they may not be available all the time. Debt is handy in supporting discreet activities that that can be used for loan repayment e.g., using off-cuts and thinnings to make charcoal. The option explored in this concept is the combination of debt and grants, preferably debt being managed as a revolving fund, complemented with other incentives. From outside Uganda, this model borrows lessons from other countries case studies analyzed. For example:

- Costa Rica's FONAFIFO has provided revolving credit for plantation forestry development and offers attractive terms, sometimes offering up to 20 years of credit repayment.
- Malaysia's Forest Plantation Development Sdn Bhd (FPDSB) is used by government as Special Purpose Vehicle (SPV) to give soft loans for plantation development programs, particularly for forest plantations.
- Sweden provides state guarantees for green investments in forestry in addition to grants and credit.

6.3.2 Key objectives

- i. Ensure a sustainable supply of legal wood raw material from planted forests, while promoting green growth wood industry development (catalyzing inclusive investments in sustainable wood-based value chains, enhancing processing capacity and market demand for wood products).
- ii. Improve access to finance for small and medium-sized enterprises in the logging and wood manufacturing sectors in Uganda.

- iii. Establish a sustainable commercial timber resource, creating jobs, and supporting local communities.
- iv. Increase the income of rural populations by promoting commercial tree planting through the provision of affordable credit and technical support to private sector actors, local communities, and institutions blended by grants.
- v. To support improvements in institutional and policy frameworks to streamline the plantation value chains and increase forest cover.
- vi. To improve ecosystems, enhance biodiversity, and protect natural resources; and reverse deforestation and land degradation; and ensure compliance with environmental and social safeguards.
- vii. To strengthen the capacity of local communities and governments to enhance ecosystem resilience and reduce vulnerability to climate change impacts.

6.3.3 Intervention areas

Below is an outline of potential support intervention areas where support should be directed.

- i. Research and innovation and infrastructure for commercial plantation forestry establishment and development.
- ii. Conservation and sustainable management of natural ecosystems and areas within the plantation areas.
- iii. Value addition to timber into various products, including poles, structural timber, and pallets.
- iv. Provision of technical support services and skills in private plantation business.
- v. Strengthening forest protection and conservation and promoting stakeholder partnerships.
- vi. Strengthen wood processes value chains including access to technologies, marketing, diversifying products.
- vii. Development of biomass plantations (fuelwood and charcoal) in local community lands for local consumption and as raw materials for processing industries.

6.3.4 Potential outcomes and impacts

Forest plantation development loans and grants will offer numerous co-benefits beyond their primary purpose of producing timber and conserving forest. These co-benefits include climate change mitigation through carbon sequestration, improved livelihoods for local communities, and conservation of natural forests. Grants and loans will also incentivize the establishment of sustainable practices, promote biodiversity, and contribute to sustainable land management. Other co-benefits include increased land value, benefiting landowners and contributing to local economic development. Government and private sector support for forest plantation development will include research and extension programs, leading to the development of more sustainable and efficient planting practices.

Transformational impacts

Forest plantation development loans and grants can have transformational impacts by fostering sustainable economic growth, environmental conservation, and improved livelihoods, particularly in regions where forests are vital for local economies. They can stimulate industrial plantation development, create jobs in the forestry sector, and contribute to a more sustainable resource management approach, including mitigating deforestation and supporting biodiversity conservation.

Economic Development

Loans and grants will incentivize the establishment of industrial plantations, leading to increased timber production and the development of related industries like furniture making, paper production, and packaging. Plantation establishment and development value chain will generate employment opportunities in target areas across the country contributing to economic development and poverty reduction. There will be a sustainable and continuous supply of timber and other forest products, reduced pressure on natural forests and sustainable resource use. The plantation products and services will generate revenue for local communities and the government.

Environmental Conservation

Forest plantations will reduce deforestation by providing a sustainable source of timber. Furthermore, plantation forestry will support biodiversity conservation if implemented with careful consideration of ecological factors, such as maintaining corridors between plantations, wetlands and natural forests. Trees absorb carbon dioxide from the atmosphere, making plantations a valuable tool for mitigating climate change. Forests provide essential ecosystem services like water purification, soil conservation, and carbon sequestration, which are crucial for the health and well-being of local communities and ecosystems.

Improved Livelihoods

Plantation forestry will provide income opportunities for local communities through employment, access to timber resources, and participation in related value chains. Furthermore, when communities are involved in the planning and management of forest plantations, they can benefit from increased control over their resources, leading to improved livelihoods and community empowerment. Forest plantation development will lead to improved infrastructure in rural areas, such as roads, schools, and health facilities, benefiting local communities.

6.3.5 Implementation arrangements

The study recommends that for a start, it explore whether Uganda Microfinance Support Centre could be an implementing intermediary through which it could give a revolving fund for forestry. As noted in Section 3, the institutions specifically targeted for the loans by MSC are SACCOs, Area Co-operative Enterprises (ACEs), MFIs, Co-operative Unions, Producer and Marketing Co-operatives and SMEs. Tree grower associations and co-operatives could therefore benefit from the revolving funds. Alternatively other suitable institutions could be identified to offer a forestry revolving fund, including one that could easily allow NGOs to provide grants.

6.3.6 Assumptions and Risks

Assumptions

Assumptions regarding commercial plantation projects in Uganda, especially when considering the impact on local communities, can be significant. Analysis of assumptions for the debt and grant financing option is provided below:

- i. Debt financing, borrowings, interest rates and repayment schedules will be favorable.
- ii. Credit reaches farmers on time: There will be timely release of funds to plantation forestry farmers.

- iii. Readily available land: Plantations will be established on land that is readily available and legally acquired, with minimal disruption to commercial plantation forest farmers from encroachers.
- iv. Environmental Sustainability: Plantations will be developed with minimal environmental damage, and responsible environmental management practices will be followed.
- v. Social and Economic Benefits: Plantations will generate significant social and economic benefits for local communities, including increased employment, income, and access to infrastructure.

Risks

The main risks and their mitigation measures for Debt and Grant option are presented below:

Table 29: Risks and mitigation measures of the proposed financing option

Risks	Description	Mitigation measure
Market Risk	Fluctuations in timber prices, demand, and competition can impact project profitability.	Diversify product offerings, establish long-term contracts, and explore niche markets (e.g., through certification).
Credit Risk	Lenders may face difficulties in recovering loan repayments if projects fail.	Thorough project feasibility studies, financial monitoring, and contingency plans.
Currency/inflation Risk	Fluctuations in exchange rates can affect the cost of imported inputs and exports.	Currency hedging, diversification of export markets, and domestic and regional partnerships.
Interest Rate Risk	Changes in interest rates can impact on the cost of debt.	Fixed-rate loans, debt restructuring, and exploring grant financing options.
Land Title and Property Rights	Insecure land tenure can hinder investment.	Ensure clear land titles and agreements, partnerships with local communities, and ensuring respect for indigenous rights.
Policy Risk	Changes in government policies (e.g., tariffs, regulations) can disrupt operations.	Engage with policy makers, build relationships with stakeholders, and develop contingency plans.
Environment and Social Risks	• Extreme weather events and changing climatic conditions can impact plantation growth and survival. • Conflicts with local communities and encroachment could arise from land use changes and impacts on livelihoods. • Noncompliance with Labour law and practices:	• Selecting climate-resilient species, implementing adaptive management strategies, and promoting biodiversity. • Community consultation, participatory planning, and equitable benefit-sharing arrangements. • Ensure fair wages, safe working conditions, and respect for human rights. • Comply with labour standards, implementing social responsibility programs, and engaging with Ministry of Gender and Labour and District Labour officers and unions.
Grant Risks Dependency	Over-reliance on grant funding can create financial instability.	Develop a diversified funding portfolio that includes debt, grants, and private investments.
Project Completion Risk	Grant funding may not cover the full project cost, and project completion can be delayed.	Develop a detailed budget, secure additional funding sources, and manage project timelines effectively.

6.3.7 Enabling conditions

Long-term security of and tenure of land or user rights has to be in place, and land can be used as collateral. Incentives alone cannot overcome weak governance; thus, improved state performance and delivery have to be locally generated and owned; and appropriately skilled people to deliver forestry management and development plans. This demands strong government support and financial investment, and local community participation and involvement.

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- iii. Community support and participation in forest sector development, including the management of invasive alien species and the protection of rangelands.
- iv. Leveraging technology to strengthen enforcement capacity for improved compliance with standard agro-forestry practices is also a priority.
- v. Improve the management of districts and private forests, as well as integrate environmental management in disaster and refugee response interventions.
- vi. Formulate economic and social incentives for plantation forests, promoting their development and adoption.
- vii. Restore and maintain over 100,000 hectares annually of degraded forests landscapes across the country and protect over 1.8 million hectares of the permanent forest estate (in Protected Areas).

Provision of financial incentives: For many small-scale private investors in tree plantation, financial capital and financial management represent one of the greatest constraints to effective operations. Lack of financial incentives has been a major limitation to participation of private sectors in the development of tree plantation business in Uganda.

6.3.8 Budget implication

The study proposes the following set of activities to take forward in the final discussions of the option, with a view to developing this concept into a proposal with a detailed budget:

- i. Mobilise and engage with both bilateral and multilateral lenders and granters on the terms and conditions for the financing option.
- ii. Establish a task team to undertake feasibility studies on implementing the debt and grant option.
- iii. Ensure that the budget reflects the real costs of debt and grant implementation, including repayment schedules and any associated fees.
- iv. Engage the Programme Planning and Budgeting Group (Natural Resources, Environment, Climate Change, Land and Water Resources Management (NRECCLWRM) and get input on option design and implementation.
- v. Engage government and microfinance players early in the planning and feasibility cycle for input and support.
- vi. Conduct debt and grant sustainability analysis to ensure the option is manageable and sustainable.

6.4 Concept Paper 4: Debt for Nature Swap (DNS) financing for plantation forestry development

6.4.1 Description of the financing option

Uganda is a signatory to multilateral environmental agreements like the Convention for Biodiversity Convention, the United Nations Framework to Combat Climate Change and the Paris Agreement among others, thereby communicating its commitment to contributing to global commons. However, there are several inter-linked problems it faces, namely the fact that Uganda is still a low-income country ranked as the 14th most vulnerable to climate change globally and 163rd in terms of readiness to adapt to these impacts, indicating a high level of exposure to climate hazards with limited capacity to adapt¹⁰⁵. Uganda is also highly indebted. Uganda's public debt stock stood at UGX 96.1 trillion (about US\$ 25.3 billion) by December 2024, with UGX 59.3 trillion (61.7%) in external debt and UGX 36.8 trillion in domestic debt (38.3%)¹⁰⁶. Uganda's high debt could be a barrier to investment in wood plantation development and in helping to mitigate impacts of climate change.

The option explored is Debt-for-Nature Swaps (DNS) specifically to constitute one of the models for plantation forestry and at the same time strategically used to unlock carbon finance for forestry. Debt-for-nature swap is as an agreement where a creditor country forgives a portion of a debtor nation's foreign debt in exchange for a commitment to invest in specific environmental projects or conservation efforts. As an indebted country, Uganda would balance its interests for commercial forestry while at the same time reducing its burden for debt.

This financing option will address the following financial cum-development barriers

- iv. Limited flexibility for the government to raise additional resources internally and externally due to current high debt levels.

¹⁰⁵ <https://gain-new.crc.nd.edu/ranking/vulnerability>

¹⁰⁶

- v. Limited leeway for government to take on new investments including forestry when the financial resources have to be used to help the country adapt to climate change.
- vi. Limited capacity of government and the private to raise new and innovative finance including carbon finance.

6.4.2 Key objectives

The objectives for using DNS are to:

- i. Unlock public financing from Uganda's creditors for investment in commercial plantation forestry.
- ii. Support restoration initiatives and tree planting in marginal lands and degraded areas.
- iii. Provide incentives (i.e. subsidies, grants) for conservation of natural forests on private land as adaptation and mitigation measures to climate change.
- iv. Support the private sector in Uganda to tap into carbon finance so as to broaden and diversify the financing streams to enhance the viability of their forest plantations and forest conservation efforts.

6.4.3 Intervention areas

The potential areas that this financing option seeks to support are:

- Create awareness on how debt for nature swaps could help Uganda manage transition for debt recovery without unduly slowing down the pace of investing in plantation forestry.
- Conservation efforts within the country including commercial forestry, forest protection and sustainable forestry practices.
- Leverage on DNS to tap into carbon finances domestically and externally especially for forestry sector by:
 - Creating awareness on opportunities to tap carbon finance.
 - Training people on how to design pipeline projects to earn carbon finance.
 - Studying and recommending incentives that could support viability of pipeline projects seeking to tap into carbon finance.
 - Supporting the government in participating in global negotiations and platforms aimed at addressing the barriers still existing in the carbon market at global level.

The above interventions are justified because the country is highly indebted and has committed itself nationally and internationally to address environmental challenges including climate change. Additionally, this option would also help the country to unlock other friendly finances including grants and carbon finance. Other barriers that Uganda could overcome through this option include:

- i. High cost of capital and limited financial market development for carbon finance.
- ii. Weak/ lack of regulatory framework for carbon market.
- iii. Low awareness and technical capacity to tap carbon finance.

The potential beneficiaries of this model are the following:

- i. The government of Uganda.
- ii. The private sector in plantation forestry development.
- iii. The private landowners conserving natural forests.

6.4.4 Potential outcome and impacts

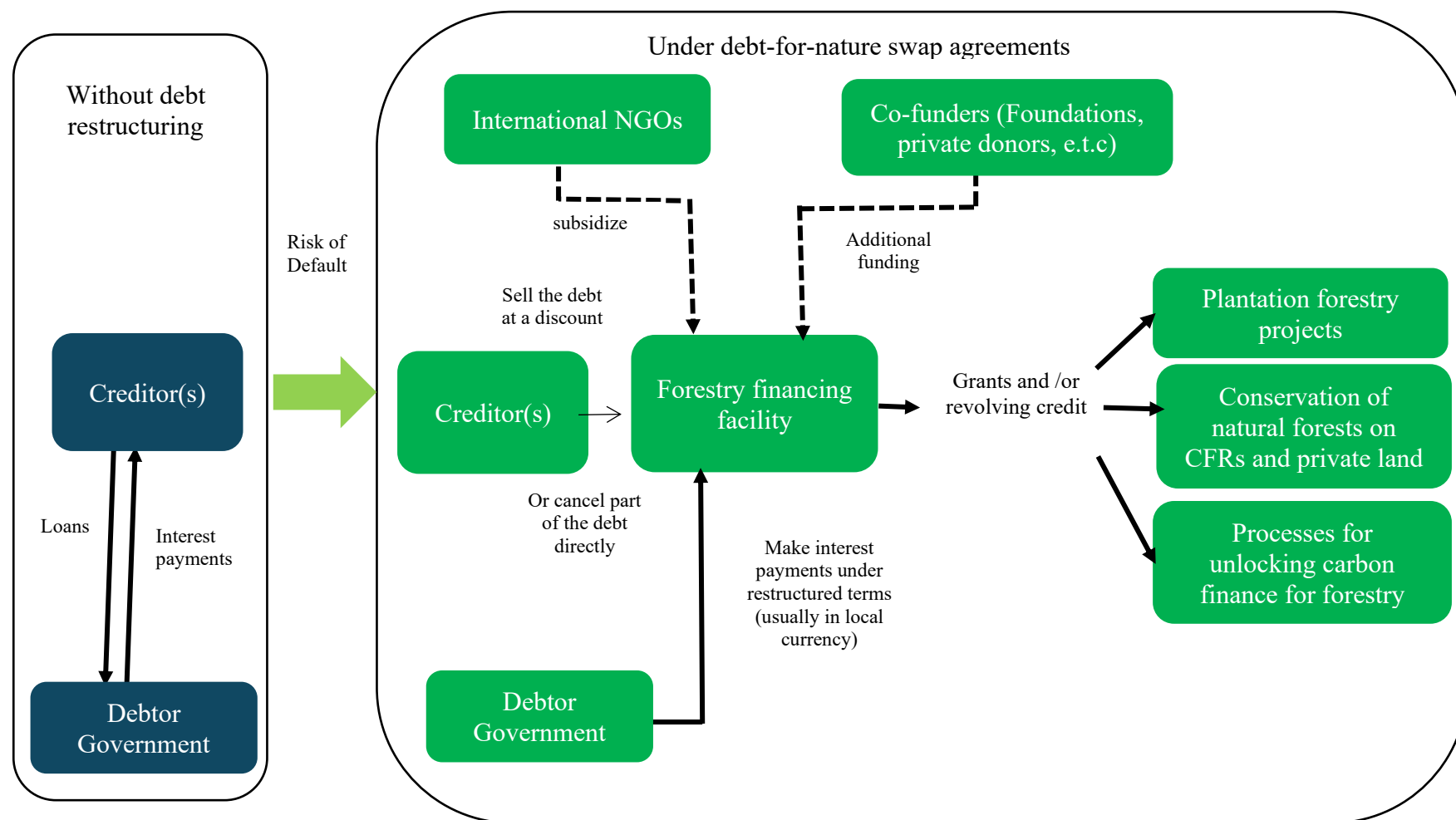
The theory of change for debt-for-nature swaps is that by reducing a country's debt burden, the resources can be agreed upon between Uganda and a creditor country to create a forestry financing facility (see Figure 22) that can then be used to deliver outcomes in four areas namely:

- i. Sustained plantation development.
- ii. Conservation of forestry ecosystem services.
- iii. Unlocking carbon finance for forestry related investments by supporting processes that remove financial barriers for forestry.
- iv. National capacity for developing carbon finance projects.

With the above outcomes realized, the country will gain the following set of impacts:

- i. Sustained employment and livelihoods from forestry.
- ii. Sustained resilience from climate change due to continued climate change adaptation and mitigation measures.

Figure 18: Illustration of debt for nature swaps for plantation forestry and conservation development



6.4.5 Implementation arrangements

It is proposed that this concept is jointly implemented by the Ministry of Finance Planning and Economic Development and Ministry of Water and Environment. This is in line with the National Climate Change Act providing that on matters of climate financing, the Minister responsible for finance shall work in consultation with the Minister responsible for climate change. Further, both the debtor and creditor country have to agree on the preferred choice to enable both maintain trust for what the debt relief can be used for and for ensuring transparency and accountability in its use.

6.4.6 Assumptions and risks

The assumptions to implement this option are that:

- i. That there is a willing creditor to enter into a DNS agreement with Uganda.
- ii. That the private landowners are incentivized sufficiently to register their natural forests with District Land boards.
- iii. That the government prioritizes savings from DNS for forest conservation including commercial forestry.

Table 30 presents the risks and mitigation measures of this financing option.

Table 30: Risks and mitigation measures

Risks	Description	Mitigation measure
1. Green washing risk	This could arise if both the creditor and debtor country use DNS for green washing without serious commitment for advancing sustainable forestry related investment.	Integrate performance indicators to be achieved over time as the financing from this option is being utilized and periodically monitor and report on achievements made.
2. Devaluation of funds	This could arise if the secured funding loses value due to delayed utilization.	Use insurance products to protect against devaluation of funds; Develop and regularly update contingency plans for various economic scenarios; and use financial instruments like futures, options, and swaps to protect against currency fluctuations.
3. Leakage of funds¹⁰⁷	This could arise if it takes the government a long time to finalise the negotiation processes with a creditor country or where there are third parties to restructure the debt at a cost.	Government should to extent possible seek for this financing option with willing creditor country, open to following transparent processes
4. Double counting¹⁰⁸	This would arise if the creditor country tries to use DNS as if it is new funding.	The government should avoid declaring DNS as new funds and should continue to engage in processes for securing additional financing from developed countries

¹⁰⁷ <https://debtjustice.org.uk/wp-content/uploads/2024/12/Debt-Swaps-Wont-Save-Us-Briefing-2024-v3.pdf>

¹⁰⁸ https://climatenetwork.org/wp-content/uploads/2023/06/CAN-position-on-Debt-Swaps_May-2023.pdf

6.4.7 Enabling conditions

The enabling conditions for this option have been analyzed from both global and domestic perspectives. At global level, there are several high policy level engagements and consensus reaching sessions in support of DNS for developing countries. The key ones are given in Table 12 (Section 3). Today there are many countries that have already taken advantage of this financing option as shown in Section 3, Table 13. Uganda therefore has lessons to go by from other countries. In addition, Uganda has lessons to further inspire it for this option based on the findings from this study that countries have got debt relief under DNS and that large planters as well as smallholder farmers have benefited from carbon finance. Examples include the following:

- The countries which have signed agreements for DNS include Democratic Republic of Congo, Kenya, Gabon, Seychelles, Belize, Bolivia, Colombia, Peru and Uruguay
- The beneficiaries of carbon finance in Uganda include Busoga Forest Company, New Forests Company, Global Woods (Fireboard), Kijani Forestry and ECOTRUST

The following national levels enablers also support this option which could trigger mobilization of other financing instruments.

- *Uganda as a signatory to the Paris Agreement:* This commitment makes Uganda a candidate to benefit from the financing mechanisms under the Agreement, including carbon finance.
- *National Climate Change Act:* The Act commits to allow the Country shall use carbon markets as one of the essential channels for mobilizing private sector financing to implement its ambitions in the NDCs.
- *National Climate Change (Climate Change Mechanism) Regulations 2025:* This further demonstrates that Uganda has taken steps to tap into carbon finance.
- *Institutionally, the government has set up the climate change under MFPED:* The Unit has mandate to mobilize national and international resources for climate and green investments, ensure efficient allocation and utilization of such finance, and increase institutional capacity to attract more climate financing. This includes supporting the development of green bonds and carbon markets, fostering strategic climate finance partnerships, and capacity building for state and non-state actors.
- *Initial preparation stages for engagement with Article 6 cooperative approaches.* Uganda has established Article 6 Taskforce to facilitate in-country capacity for the implementation of the mechanisms and to ensure that Uganda benefits from voluntary cooperation arrangements defined in Article 6 of the Paris Agreement. The Country is also in the initial stages for the development of Article 6 regulations and implementation framework.

It also fits into the country's national priorities and ownership in the following manner:

- *It aligns with the government goal to increase household income:* It has been reported that Cash flows from carbon offsets can be realized early within the first rotation, with requirements for further rotations within the 30-year period. Carbon finance could provide a role in funding smallholder forestry projects. Potential carbon credit income could fund substantial cash costs of plantation development. Based on indicative analysis, a 1 ha plantation would generate c.\$1,000 of carbon credit revenues before discounting and tax (Criterion Africa Partners and Gatsby Africa

(2024)¹⁰⁹. Such benefits would be relevant at household and micro level in the context of Uganda's NDP IV's goal 'to Achieve higher household incomes and employment for sustainable socio-economic transformation'.

- *It broadens revenue streams in the value chain:* Further, it has also been studied in Uganda that 'Long rotation periods in wood production mean that plantation owners benefit if intermediate revenues can be generated during the wood-growing period and carbon credits could be one of such streams (World Bank, 2022)¹¹⁰.
- *It aligns with Uganda's updated NDC of 2022:* Uganda updated its NDC in September 2022 based on the country's Vision 2040 and the Third National Development Plan (NDP III) which presents an ambitious economy wide mitigation target in 2030 of 24.7% reduction below the Business As Usual (BAU), a progression from the 22% reduction target communicated in the first NDC in 2016. In the NDC, there are several interventions this financing option could support as shown in Table 31.
- *Giving effect to implementation of National REDD+ Strategy and Action Plan:* Further, this option will contribute to Uganda's implementation of the National REDD+ Strategy and Action Plan. This plan includes various supportive strategies for plantation development, focusing on sustainable forest management, enhancing carbon stocks, and addressing deforestation and degradation. These strategies aim to create an enabling environment for sustainable plantation development while promoting community participation and ensuring fair benefit-sharing. With regard to financing, the strategy sets the principle that 'The REDD+ National Strategy will not be implemented as a stand-alone project but as part of the broader national planning framework and linked to the respective financing frameworks. The strategy further emphasizes that the main budget funding for the forthcoming national REDD+ programme implementation phases will not be secured in one single contract with any international or national financing agency and instead it will be accumulated from several financing agencies. Accordingly, DNS is one of those contracts the government could enter into with a willing creditor country.

Table 31: Priority adaptation and mitigation measures under forestry sub-sector of the NDC, 2022

Category of measures under NDC	Measure	Specific interventions
Adaptation measures	Increase forest cover	• Promote afforestation and reforestation to reduce vulnerability of people and ecosystems • Encourage agroforestry to enhance nutrient cycling and integrated pest management • Encourage sustainable forest management to enhance forest ecosystem function • Promote use of non-timber forest products (NTFPs) to diversify livelihoods and improve resilience of communities

¹⁰⁹ <https://www.gatsbyafrica.org.uk/insight/lessons-from-30-years-of-african-commercial-forestry-investments/>

¹¹⁰ <https://documents1.worldbank.org/curated/en/099310006212237360/pdf/P17862700d922f0508e1a0d4b8ca048f50.pdf>

Mitigation measures	Sustainable fuelwood and commercial charcoal production	• Small-holder and community bioenergy woodlots • Commercial small-holder and community poles & timber plantations (with coffee agroforestry) • Improved charcoal kilns linked to bioenergy woodlots
	Large scale commercial timber plantations	• Commercial transmission pole and timber plantations • Commercial pole and sawlog plantations
	Restoration of natural forests in the landscape	• Natural forest regeneration • Restoration of degraded protected natural forest

6.4.8 Budget

The budget to implement this option would depend on many factors including the types of forest conservation activities that the government may consider targeting. The study proposes the following set of activities to take forward in the final discussions of the option, with a view of developing this concept into a proposal with a detailed budget:

- i. Establish a task team to undertake feasibility studies on implementing this option.
- ii. Raise awareness on the option to enlist buy-in from government ministries and political leadership.
- iii. Engagement between MWE and MFPED to identify priority areas that could be funded by the DNS, potential countries to discuss the option with, and modalities of implementing the option.
- iv. Engage the Programme Planning and Budgeting Group (Natural Resources, Environment, Climate Change, Land and Water Resources Management (NRECCLWRM) and get input on option design and implementation.
- v. Choose and design the financing delivery mechanism and define its mandate and terms and conditions.

Annex 1: Stakeholder institutions consulted during the assignment

No	Organization	Title	Name
1.	Ministry of Finance and Economic Development	Principal Economist	Moses SSONKO
2.	Ministry of Water and Environment (FSSD)	Assistant Commissioner	Bob KAZUNGU
3.	Ministry of Water and Environment (FSSD)	Contract Manager	Martin ASIIMWE
4.	National Forestry Authority	Acting Director, Tree Plantation	Martin MWODI
		Coordinator Geographic Information	Edward SSENYONJO
		Database Officer	Mr. Denis Kareetwa KARUHANGA
5.	Private Sector Foundation Uganda	Sector Coordinator, Agriculture, Agribusiness and Forestry	Martin MAKU
6.	Uganda Wildlife Authority	Manager -Planning ESIA & Climate change	Richard KAPERRE
		Assistant Warden Planning	Charles KASUJJA
		Warden Planning	Brenda KYOMUHENDO
		Manager ESIA	Justine NAMERA
		Volunteer in Planning and EIA	Jimmy BARUKU
		Warden Environment Impact Assessment	Florence KYALIMPA
7.	Ministry of Trade Industry and Cooperatives	Focal Point Person – Wood Industry	Jerome NUWABAASA
8.	Uganda Revenue Authority	Director – Research	Joseph AYO OKELLO
9.	Food and Agricultural Organization - SPGS	National Project Coordinator	Zainabu KAKUNGULU
10.	European Union	Sustainable Development Advisor	KOBUSINGE Jalia
		Programs Manager	CASTERMANS Alain Antoine
		Programme Manager – Access to Finance	BANUTA Cristina
11.	Uganda Development Bank	Senior Environmental and Social risk Specialist	Junior NUWAHEREZA
12.	Pride Microfinance	Executive Director	John Hannington
13.	UTG-SACCO	Manager	Moses KAIRIVU
14.	Ministry of Water and Environment - FIEFOC	Assistant Commissioner	Bob KAZUNGU
15.	World Wildlife Fund (WW)	Coordinator	Paul MULONDO
16.	US Forest Service/ NFA	Technical Advisor	Dr. Andrew WILLIAM
17.	The International Union for Conservation of Nature (IUCN)	Senior Program Officer	James OMODING
18.	Uganda Timber Growers Association	Executive Director	Denis KAVUMA
19.	KULIKA Uganda	Executive Director	Ogwang AMUJAL
20.	Kijani Forestry	Executive Director	Michael OLOYA Alier TEBERE
21.	Woodmill	Executive Director	Ronald

22.	Green Approaches Ltd		Bob NABANYUMYA
23.	West Nile Foresters	CEO	Bernard B. OBAA
24.	Busoga Forestry Company Ltd	Environment Systems Auditor	Simon KIZZA
		Sales & Marketing Specialist	Moses KINOBE
25	Havilah Co. Ltd	Director	Steve NSITA
26.	New Forest Company	Chief Impact Officer	Alex KYABAWAMPI
27.	Tree Uganda Academy	Executive Director	Ivan
28.	Qualicoff (U) ltd	Quality Assurance Officer	Tasha KUKIRIZA
29.	Green Earth Afforestation Initiative	Managing Director	Godfrey MUSISI
30.	Qualicoff (U) Ltd	Quality Control Officer	Ms. Tasha KUKIRIZA
31.	Ebenezer Coffee Farm	Managing Director	Mr. Jacob Kizito MAYANJA
32.	Rubirizi DLG	District Forest Officer	Ritah MURUNGI
33.	Kasese DLG	District Forest Officer	Emmanuel BAHATI
34.	Rukungiri DLG	District Forest Officer	Arthur

Nursery operators – Questionnaire administration

No	Organisation	Position	Name
35.	Agric Remedy Ltd	Founder	NANDAGO Faridah
36.	Alanay Agencies SMC ltd	Managing Director	ALEMA Isaac
37.	CTK Tree Nursery	Managing Director	Ahurire Mary GORRET
38.	Westnile Foresters SMC Limited	Director	Dr. Bernard B. OBAA
39.	Green Planet Environmental Services and Contractors Uganda limited	General Manager	Okodel SMAN
40.	Schnelle Aufforstung	Director	E. M. KAMYA
41.	Kisaana Forestry Enterprises Ltd	Managing Director	Mwima ABUBAKER
42.	NAWIDI Co. ltd	Director	

FGDs participants – Rukungiri Tree Growers traders Cooperative Society

No	Name	Position	Contact
43.	Muhwezikate Ndimbirwe	Board Member	0772531299
44.	Twinomujuni Arthur	Petron – Tree growing	0782594890
45.	Nisiima Innocent	Chairperson - BOD	0789945775
46.	Komugisha B.M	Member	
47.	Busingye Evas	Treasurer/Tree farmer	0774798586
48.	Batahama Peter	Tree farmer	0782463030
49.	Migadde Yusufu	Tree farmer	0784577903
50.	Twinomuhwezi Leo	Farmer	0782024775
51.	James Baguma	Member/Farmer	0777546189

Annex 2. Policy and regulatory framework providing for sustainable forest investment and financing

Table 1. Policy framework

Policy framework	Key features and relevancy to commercial forestry
The National Environment Management Policy (NEMP), 2014	Among others, this policy sets out the following strategies: (1) to mobilize increased private sector resources to achieve environmental conservation and management objectives, (2) to incorporate the cost of producing or maintaining natural resources into the costs incurred by (and benefits derived from) resource users through use of appropriate management mechanisms (e.g. leases, management contracts, users fees, taxes, subsidies, payment for ecosystem services, concession agreements, and similar pricing mechanisms), (3) to ensure that individuals, groups, business and other economic entities have appropriate incentives and disincentives with regard to sustainable resource use and environmental protection, (4) to offer economic incentives to foster more efficient and sustainable use of ecosystem services, (5) establish PES policy , legislative and regulatory frameworks responsive to the needs of the communities; and (6) to develop, test and disseminate good practice on biodiversity offsets .
Uganda Forest Policy, 2001	The policy includes the following strategies for the promotion of ‘Profitable and productive forest plantation businesses: (1) strengthen legal agreements between government and private investors for use of the Forest, (2) reserves, and review forest and tree tenure rules, to encourage development of commercial forest plantations, (3) promote innovative financing mechanisms , such as a Forestry Fund, and fiscal incentives in order to encourage investment and ensure sustainable sources of operational and re-investment funds, and (4) review the Investment Code to better accommodate large industrial forest plantation developments. The policy also provides for international funding by stating that further sources of funding for sector development will be actively pursued, including carbon credits or international funds to support biodiversity conservation.
Energy Policy for Uganda, 2023	One of the strategies to be used by the Government in promoting sustainable biomass energy production and utilisation is to promote feedstock growth and dedicated land for sustainable commercial biomass energy production in collaboration with other MDAs’ and ‘promote the standardisation, certification, labelling and packaging of biomass technologies and fuels’ and ‘Provide fiscal incentives , e.g. subsidies, loans and tax incentives, to encourage private sector involvement in the clean cooking sector’.
The Renewable Energy Policy for Uganda, 2017	A key strategy to realize the policy objective of modernizing renewable energy is ‘provide incentives for farmers to establish commercial woodlots . Among the financing options, the policy states that a special financial mechanism has been instituted to facilitate rural electrification and renewable energy investments. This is the Credit Support Facility (CSF) known as the Uganda Energy Capitalization Trust. Participating in Financial Institutions (PFIs) will include Commercial Banks, Development Banks and Microfinance Institutions.
Uganda National Climate Change Policy, 2015	The overarching objective of the policy is to ensure that all stakeholders address climate change impacts and their causes through appropriate measures while promoting sustainable development and a green economy. One of the objectives to achieve this overarching objective, is to facilitate the mobilisation of financial resources to address climate change in Uganda .
Land Policy, 2013	The land policy provides for efficient, equitable, and sustainable utilization and management of Uganda’s land for poverty reduction and socio- economic development. To address climate change, the policy promotes measures such as plantation forest development that mitigate forest destruction and enhances carbon stocks.

The National Land Use Policy, 2007	The goal of the national land use policy is “to achieve sustainable and equitable socio-economic development through optimal land management and utilization”. This policy is relevant in commercial forestry since it ensures that land is used for the purpose to which it was allocated. One of the strategies to halt and reverse the rate of deforestation in areas outside gazetted forest reserves policy statement is to support initiatives for management of forests outside protected areas . This could be through the development of small-holder plantations.
Buy Uganda Build Uganda Policy, 2014	The vision is to develop a vibrant dynamic and competitive private sector that transforms local products through the value chain to meet the required standards. Its mission is to support the production, purchase, supply and consumption of local goods and services. Among its objectives are to promote the use and conformity to standards to guarantee quality goods.
Public Private Partnership (PPP) Framework Policy, 2011	Through the Public Private Partnership Framework Policy, the Government of Uganda has (GRL) are PPPs as per this policy since the private sector is utilised to exploit the commercial potential of government assets with a view of delivering affordable quality services more efficiently and effectively.
Micro, Small and Medium Enterprises (MSME) sector Policy 2015	The vision of the MSMEs Policy is to create “A critical mass of viable, dynamic and competitive MSMEs, significantly contributing to the socio-economic development”. The mission of the policy is ‘ to stimulate growth of sustainable MSMEs through enhanced business support service provision, access to finance, technical and business skills, and the creation of a conducive policy, legal and institutional framework ’.
Uganda Gender Policy 2007	The goal of the gender Policy is ‘Achieve gender equality and women's empowerment as an integral part of Uganda's socio-economic development’. The purpose of the Uganda Gender Policy is ‘to establish a clear framework for identification, implementation, and coordination of interventions designed to achieve gender equality and women's empowerment in Uganda’.
National Land Acquisition, Resettlement and Rehabilitation Policy (in Draft)	In the context of the government’s objective of sustainable economic development, the purpose of the Land Acquisition, Resettlement and Rehabilitation Policy is to facilitate land acquisitions and reduce conflicts by ensuring that displaced people are treated in a fair and equitable way and are not impoverished in the process. The goal of the policy is to ensure that all social, economic, and other impacts that result from land acquisitions are properly identified and mitigated through a process that balances the interests of national development and other situations requiring public land with the rights of affected people.

Table 2. Legal and regulatory framework

Legal and regulatory	Key features and relevancy to commercial forestry
<i>The Constitution of the Republic of Uganda, 1995</i>	On matters of related to finance , the Constitution under Article 153 establishes a Consolidated Fund into which shall be paid all revenues or other money raised or received for the Fund purpose of, or on behalf of, or in trust for the Government. Further, under Article 159, the Constitution provides for the Power of Government to borrow or lend. It states that Government may borrow from any source.
<i>The National Climate Change Act, Cap 182</i>	An Act gives the force of law in Uganda to the United Nations Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement; to provide climate change response and to provide for financing for climate change. The Act also empowers the Minister, in consultation with the Minister responsible for finance, to provide incentives to persons engaged in implementing response measures for adaptation and mitigation and to make regulations prescribing the nature of incentives, the conditions for the grant or withdrawal of incentives and such other matters related to incentives.
<i>The National Environment Act, Cap 181</i>	The Act also provides that: a) Parliament shall each financial year, appropriate funds as Environment and Natural resources conditional grant for the purpose of financing

	environment and natural resources programmes in the district, city, municipal, town councils and sub counties. b) The funds shall be shared among the sectors that constitute the natural resources department of each district, city, municipal and town councils and sub counties. c) The National Environment Fund. Shall continue in existence. The Act also provides that notwithstanding the provisions of the Income Tax Act, the Minister responsible for finance in consultation with the Authority, may provide for— a) fiscal, tax, financial and other instruments to encourage good environmental practices, including the conservation of the environment and natural resources and the prevention or abatement of pollution; or b) tax and economic disincentives to deter deleterious environmental behaviour that leads to depletion of the environment and natural resources or activities that cause pollution.
<i>The National Forestry and Tree Planting Act, Cap, 160</i>	The Act also established a Tree Fund to be used: - (a) to promote tree planting and growing at national level and local level and (b) to support tree planting and growing of a non-commercial nature which are of a public good. The monies of the Fund shall consist of: a) Monies approved by Parliament b) Loans obtained by government c) Monies from other sources approved by the Minister in consultation with the Minister responsible for finance. d) Any monies required to be paid into the Fund. e) Gifts and donations. The fund shall be managed by a body appointed by the Minister and the administration costs of managing the Fund shall be charged to the Fund.
<i>The Land Act, Cap 236</i>	The Acts provides for the tenure, ownership and management of land. It recognizes four tenure systems, i.e. Customary, Mailo, Freehold and Leasehold tenure systems. Section 34 provides that a person who owns land should utilize it in accordance with the governing environment and forestry sectors.
<i>Land Acquisition Act, Cap 235</i>	This Act makes provision for the procedures and methods of compulsory acquisition of land for public purposes whether for temporary or permanent use. The Act requires that adequate, fair and prompt compensation is paid before taking possession of land and property.
<i>Local Government Act, Cap 138</i>	An Act to amend, consolidate and streamline the existing law on local governments in line with the Constitution to give effect to the decentralization and devolution of functions, powers and services; to provide for decentralization at all levels of local governments to ensure good governance and democratic participation in, and control of, decision making by the people; to provide for revenue and the political and administrative setup of local governments; and to provide for election of local councils and for any other matters connected to the above.
<i>Public Procurement and Disposal of Public Assets Act, Cap 205</i>	Under Article 61, the Act makes provision for best practice and industry standards. It states that procuring and disposing entities shall always use <u>industry standards</u> defined and codified by internationally recognized trade associations and professional bodies in the appropriate fields. Furthermore, under Article 61A, the Act provides for ‘Sustainable procurement’ stating that a procuring and disposing entity shall for each procurement take into account environmental protection, social inclusion and stimulating innovation, as may be prescribed.
The Investment Code Act, 2019	The Act provides for the registration of investors and investments licenses and to make the Authority a one stop centre for coordination, promotion, facilitation, monitoring and evaluation of investors. It also provides that an investor who meets the qualification under the Act may get incentives.

Public Finance Management Act, Cap 171	The Act provides that all revenue or other money raised or received for the purpose of Government shall be paid into and shall form part of the consolidated Fund except the revenue specified in section 29(2)(a) and (3). It further provides that A vote, state enterprise or public corporation shall retain revenue collected or received, where the revenue—(a) is in the form of levies, licenses, fees or fines and the vote, state enterprise or public corporation is authorised through appropriation by Parliament to retain the revenue ; (b) is a monetary grant exempted by the Minister under section 44.
Energy Efficiency and Conservation Bill, 2024.	The Bill acknowledges that <u>traditional</u> cooking methods reliant on inefficient fuels such as wood and charcoal contribute to indoor air pollution, deforestation, and high energy costs. To address this, the Bill seeks to promote the development and adoption of improved cook stoves, biogas systems, electric cookers, and other clean cooking solutions. To facilitate this transition, the proposed law includes provisions for financial incentives, subsidies and awareness campaigns to ensure the affordability and accessibility of clean cooking alternatives, particularly in rural and underserved areas.
Environmental Impact Assessment Regulations, 1998	The procedures for conducting EIAs are stipulated in the Regulations. The Regulations require environmental assessments to be conducted to determine possible environmental impacts, and measures to mitigate such impacts.
The National Climate Change (Climate Change Mechanisms) Regulation, 2025	The Regulations provide that a project proponent who wishes to participate in a climate change mechanism shall, before commencing the climate change mechanism project, submit to the Minister a request in a standardized form. They further stipulate that a project proponent shall submit a benefit sharing plan, together with the application for approval of a climate change mechanism project.

Table 3. National Plans and strategies

National Plans and strategies	Key features and relevancy to commercial forestry
Vision 2040	The Uganda Vision 2040 aims to transform Uganda from a predominantly peasant and low-income country to a competitive upper-middle income country. Vision 2040 aims at restoring forest cover from 15% to 24% including through the undertaking of re-forestation and afforestation on public land, promotion of participation in tree planting on both private and public land and enhancing private investment in forestry. The Uganda Vision further commits that efforts will be directed towards the creation of effective partnership and cooperation with the international community on environmental sustainability. The Vision posts that the <u>financing</u> of this Vision will be mainly by the government, the private sector, development partners and CSOs. Government will mobilize resources using conventional and <u>innovative nonconventional means of financing</u>. These will include tax and non-tax revenues, revenue from oil and gas, public-private partnerships, concessional loans and grants, borrowing from domestic and international markets. The private sector shall contribute to the financing of the Vision through public-private partnerships, direct domestic and <u>foreign investments, and pension funds</u>. Government will put in place mechanisms to ensure availability of affordable <u>credit from the financial institutions</u>.
National Development Plan IV 2025/26-2029/30	The goal of the Plan is to “Achieve higher household incomes and employment for sustainable socio-economic transformation”. This goal is to be achieved under the theme “Sustainable Industrialization for Inclusive Growth, Employment, and Wealth Creation” ¹¹¹ . The plan includes, Natural Resources, Environment, Climate Change, Land and water management as one of the enablers. The key focus areas are restoration of forest cover; reducing the country’s vulnerability to climate change; value addition to forests

¹¹¹ <https://hoimacity.go.ug/sites/default/files/2024-11/NDPIV%20Draft%20Main%20Document%20pdf-1.pdf>

	and other natural resources and strengthening institutional coordination, enforcement and implementation of policies and laws. Among the strategies to <u>mobilize resources through the nontraditional financing options</u>, the plan includes among others the following; - Leveraging the pension <u>sector</u> to provide <u>sustainable long- term financing</u> with appropriate regulatory support. - Increasing <u>access to climate finance</u> by establishing an enabling policy and regulatory framework to support climate finance mechanisms including the development of a given bond market and viable green projects. - Establish <u>special purpose vehicles</u> which <u>aggregate funds</u> from services like pension funds, international institutions, private investors and large scale projects. <u>Blended finance</u> that would combine public and private financing and <u>reducing risks</u> for private investors. - Introduction of <u>green finance instruments</u> such as green bonds and <u>sustainability –linked loans</u> as well as financial incentives such as <u>tax breaks or lower interest rates</u>. <u>Public-Private-Community Partnerships (PPCP)</u>, by fostering collaboration among government entities, private investors, and local communities thus ensuring that development initiatives are both inclusive and sustainable specifically with regard to <u>protecting, restoring and adding value to forests</u>. NDP IV includes strategy to <u>upscale commercial forestry</u>, including bamboo, and fully exploit value chain opportunities to maximize economic benefits and enhance climate resilience. Among the targets to be achieved by 2029/30, NDP IV includes the following; - Increased percentage of land covered by forests from 12% in FY 2023/24 to 15.5%. - Increased export value of wood products from <u>USD 143.4 million in FY 2023/24 to USD 350 million</u>.
National Forest Plan 2011/12 - 2021/22	The Vision of the Forestry Sector is “<i>A sufficiently forested, ecologically stable and economically prosperous Uganda</i>” and the Goal is “An integrated forest sector that achieves sustainable increases in economic, social and environmental benefits from forests and trees by all the people of Uganda, especially the poor and vulnerable”. The strategic objectives are to: - Increase economic productivity and employment through forest production, processing and service industries - Raise incomes for households through forest-based initiatives; - Restore and improve ecosystem services derived from sustainably managed forest resources The plan identified the following potential sources of funding; - Payment for environmental services, especially through carbon sequestration and watershed protection services - Private sector sources (domestic and external) - Public funds, including Official Development Assistance - Government instruments like guaranteeing loans and tax relief for the private sector - Public-Private Partnerships, especially in commercial timber and energy plantations - Long-term loans from pension & insurance funds, and development banks In terms of strategies, the Plan lists the following among others. - Operationize the Tree Fund provided for under the law to support tree growing initiatives at local government and community levels

	ii. Develop economic instruments (financial, taxes, green levies, payment for ecosystem services, etc.) for funding forest management i. Promote private-public partnerships to enhance forest sector financing ii. Mobilize long-term low-interest finance from pension funds, insurance and financial institutions for forest developers
National REDD+ Strategy and Action Plan 2017	The Uganda National REDD+ Strategy and Action Plan includes various supportive strategies for plantation development, focusing on sustainable forest management, enhancing carbon stocks, and addressing deforestation and degradation¹¹². These strategies aim to create an enabling environment for sustainable plantation development while promoting community participation and ensuring fair benefit-sharing. With regard to <u>financing</u>, the strategy sets the principle that 'The REDD+ National Strategy will not be implemented as a stand-alone project but <u>as part of the broader national planning framework and linked to the respective financing frameworks</u>'. The strategy further emphasizes that the main budget funding for the forthcoming national REDD+ programme implementation phases will not be secured in one single contract with any international or national financing agency and instead it will be accumulated by several financing agencies. The strategy registered that MWE has already managed to secure part of this budget in the form of the Forest Investment Programme (FIP).
Uganda Green Growth Development Strategy 2017/18 – 2030/31	The Uganda Green Growth Development Strategy (UGGDS 2017/18 –2029/30) aims to ensure that the goals of the Uganda Vision 2040 and the NDP are attained in a sustainable manner. The general objective of the UGGDS is to provide guidance on priorities, strategies and governance frameworks for implementing the green growth principles within the existing development frameworks towards the sustainable development of the country. A key strategy in the Uganda Green Growth Development Strategy involves incentivizing communities and individuals to manage their forests and land sustainably. The strategy further encourages the use of sustainable forest management principles, ensuring that forest resources are used responsibly and efficiently. Other strategies focus on creating a supportive policy and regulatory framework for private sector investment in forestry and related industries; and encourage public-private partnerships to facilitate sustainable forestry initiatives and promote investment in the sector. The strategy calls for Shifting government expenditure, especially <u>public procurements, towards value chains that encourage sustainable consumption and production</u>. From the <u>financing point of view</u>, the resource mobilization strategy for the UGGDS is informed by the following six funding sources¹¹³: i. Public sector allocation and <u>environmental fiscal reform and subsidy reforms</u>; ii. <u>Sustainable public procurement</u>; iii. <u>International funding</u>; iv. <u>Sustainable production and trade</u> and inclusive green social enterprises; v. Green energy investments; and vi. <u>Incentives and green innovations</u>.
Climate change finance strategy, 2017	The goal of Uganda's Climate Finance Strategy is to establish and operationalise a comprehensive framework for the mobilisation, governance and delivery of financing for an effective climate change response. It sets out key strategic objectives below: i. Adequate funds are mobilised from all available sources (domestic public and private and international public and private) to finance national climate response options;

¹¹² <https://www.mwe.go.ug/sites/default/files/library/Final%20-%20Uganda%20REDD%2B%20Strategy%20and%20Action%20Plan-October%202017.pdf>

¹¹³ <https://faolex.fao.org/docs/pdf/uga184391.pdf>

	ii. The necessary modalities and accountability mechanisms are established to receive and manage funding to respond to climate change; iii. Modalities to ensure the effective delivery of funding for climate change response at all levels are established and operationalized; iv. Modalities for monitoring, evaluation and reporting on the use of finance dedicated to climate change interventions at all levels are established and implemented; v. Coordination and horizontal and vertical governance and accountability are enhanced. The strategy encourages the use of incentive mechanisms for climate finance mobilization. They Regulatory instruments (e.g., tax measures, power purchase agreements); economic instruments (e.g. feed-in tariffs, bonus and malus schemes, equity/ownership positions); Debt financing and Operating cost subsidies.
Nationally Determined Contribution 2022	Uganda submitted its updated Nationally Determined Contribution (NDC) to United Nations Framework Convention on Climate Change (UNFCCC) in 2022. The NDC identifies forestry as a priority sector in adaptation and has identified forest restoration efforts (afforestation and reforestation programmes) and agro-forestry as important action points in reducing emission and offering other benefits, such as biodiversity conservation. Uganda has committed to increasing area under planted forest from 307,000 ha (2025 target) to 407,608 ha (2030 target). Some of the priority measures under adaptation include an increase in forest cover while under mitigation it includes large commercial timber plantations and sustainable woodlots. With regard to financing, Uganda requires USD 28.1 billion to implement both unconditional and conditional adaptation and mitigation actions and targets of the updated NDC and its cross-cutting issues of technology development and transfer, gender, and capacity building across all sectors up to 2030.
Uganda's National Biodiversity and Action Plan II, 2015-2025	The Vision of Uganda's NBSAPII is "to maintain a rich biodiversity benefiting the present and future generations for socio-economic development". The Goal is "to enhance biodiversity conservation, management and sustainable utilisation and fair sharing of its benefits by 2025". Among its seven strategic objectives, NBSAPII has objectives to strengthen stakeholder co-ordination and frameworks for biodiversity management: to promote sustainable use and equitable sharing of costs and benefits of biodiversity and to promote innovative sustainable funding mechanisms for implementation of NBSAPII. In addition to mobilizing financing from traditional financing mechanisms like national budget and conservation trust funds, the Strategy encourages mobilization of financing from innovative financing mechanisms that include the following: i. Payment for Ecosystem Services ii. Biodiversity offsets iii. Environmental Fiscal Reforms iv. Performance bonds v. Green markets through natural resource trade and value chains vi. Climate finance vii. GEF

Biomass Energy Strategy-Uganda	The vision / mission of the strategy is ‘to secure a stable biomass energy supply for long-term social and economic development of Uganda including poverty reduction’¹¹⁴. In order to achieve its objectives, the strategy includes a pillar on financing. It observes that several improved technologies both at end-use and biomass transformation exist but they are normally associated with <u>high upfront costs</u> such that it would be need to develop a number of innovative funding mechanisms such as grants, challenge fund and use of carbon credits as collateral. The strategy calls for a dedicated biomass energy investment fund to be managed by the authority in the implementation of PPPs.
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<https://www.undp.org/sites/g/files/zskgke326/files/migration/ug/bc55cfee7ca385c20ba6e8738870a7d1c5bd851e40d1eac263fd5ff5d2de60a3.pdf>

Annex 3. Institutional framework

Institution	Mandate/role relevant to financing of the commercial forestry sector
Government Ministries, Departments and Agencies	
Ministry of Water and Environment	- Overarching body responsible for developing forestry guidelines/regulations, forestry policies and macro-programmes, - Regulates and monitors the sector - Coordinates activities within the forestry sector. - Ensuring that forest matters are included in national planning and allocation of resources. - Mandated to manage CFRs on a sustainable basis and to supply forestry-related products and services to government, local communities, and the private sector. - Develops forest plantations and has developed guidelines for PES. - It has a major role in forest law enforcement, - Licensing and monitoring of forest resources. - Supply tree seed through the National Tree Seed Centre. - Conduct national forest inventories and mapping technical services.
Forestry Sector Support Department (FSSD)	- Overall responsibility of coordinating the forestry sector, providing technical support and expertise to the sector, - Inspection and monitoring of local government and NFA, - Coordinating the National Forestry Plan and ensuring cross-sectoral linkages. - Responsible for mobilising funds and other resources for the forestry sector as well as promoting public information on forestry in Uganda.
Ministry of Local Government	- Responsible for supporting delivery of services by District Local Governments (DLGs) through the District Forestry Offices; - Undertake forest extension as well as managing Local Forest Reserves and forest resources at the local level. - Supervising activities of and providing technical support to private forest owners. - Implement international and national policies on forests. - Issuance of forest produce permits, collection of license fees and tax collection. - Has a role in forest law enforcement. - Monitoring local compliance with national forest laws and regulations
Ministry of Wildlife and Tourism	- Responsible for the promotion of tourism and eco-tourism, - Hosting the International Convention on Trade in Endangered Species; - Developing and implementing regulations, guidelines, and standards for the management of wildlife and biodiversity.
Uganda Wildlife Authority (UWA)	- Statutory body manages and protects forest resources in National Parks, Wildlife Reserves, and Wildlife Sanctuaries. - Promotes tourism and eco-tourism within these areas. - Management of the forest resources in national parks, wildlife reserves and wildlife sanctuaries (about 50% of the gazetted forests)
Ministry of Agriculture, Animal Industry and Fisheries	- Responsible for supporting agroforestry and working on the interface between agriculture and forestry. - Provide extension services to farmers and support the implementation of laws and policies on sustainable land management.
National Environmental Management Authority	- Develops and implements regulations with regard to environmental aspects of forestry activities including Environment and Social Impact Assessments. - Works with DLGs on the integration of environmental priorities into district development plans.
National Forestry Resources Research Institute (NaFORRI)	- Mandated to undertake forest research and development as well as promotion of new forestry technologies.

Ministry of Finance, Planning and Economic Development	- Formulate sound economic policies that enhance economic stability and development - Mobilize local and external financial resources for public expenditure - Regulate financial management and ensure efficiency in public expenditure - Oversee National Planning and Strategic Development Initiatives - Developing the capacity of the climate change unit in mobilizing climate finance and developing MRVs for climate finance. - Coordinating a joint GOU and DPs programme for public financial management reforms, including in sustainable resource mobilization
Ministry of Trade, Industry and Cooperatives	- Develop and promote a competitive and export led private through accelerating industrial development founder economic growth, through among others - Acquiring, developing, advancing and promoting appropriate technologies - Supporting MSMEs and industries with major focus on backward and forward linkages - Developing and promoting standardization and value addition
National Bureau of Standards	- Supporting plantation forestry in Uganda by developing and implementing national standards
FSC National Forest Stewardship Standard (NFSS) 2018	- Developing and implementing comprehensive Forest Management Plans, which are crucial for ensuring sustainable forest management practices
Uganda Revenue Authority	- Enforcing, accessing, collecting and accounting for the various taxes and review imposed in Uganda
Uganda Development Bank	- Operate as Uganda's development finance institution in priority sectors in line with the GOU's development priorities
Uganda Law Commission	- Undertaking consultation for the revision of National Forestry and Tree Planning Act
Private Sector Institutions	
Private Sector Foundation	- Policy advocacy to government aimed at addressing barriers faced by the 340 business associations organized in 12 sectors, including one on Agriculture, Agribusiness and Forestry
Private sector	- Private landowners manage their own forests, contributing to the overall forest landscape. - Key player in the implementation of the Uganda Forestry Policy covering all areas of production, processing, trade, and export of forest products. - Participate in national planning and dialogue.
Timber growers and traders' cooperatives societies (Kasese Mitooma, Rubirizi, Kisoro, Rukungiri)	- Participation in nursery establishments, tree planting and processing - The are planning to go into tertiary product development and collective marketing
Better Globe Forestry	- They offer services for commercial forestry development using agroforestry model with Melia azedarach species, carbon credit programme; farmer engagement; forestry consultancy; training and capacity building - They have a Memorandum of Understanding (MOU) with farmers guaranteeing to support farmers with quality seedlings, technical advice; guarantee farmers market for the trees upon maturity (15 years) and assume full cost of felling trees (NB-out grower).
Kijani Forestry Company	- Has MOUs with government entities not only to facilitate access to land for reforestation but also foster community trust and participation in plantation development and agroforestry) and incentivizing farmers to keep their trees for at least five years as they pay farmers to coppicing to enter their products into the markets.
Local forest communities and farmers	- Comprise a range of interested parties, a number of whom participate in forestry management along the value chain and are good forestry business entrepreneurs,

	but many of whom are also poor and marginalized.
Civil society organizations and other non-state actors	
Uganda Timber Growers Association	- Lobbying and advocating for favourable policy and legal environment for commercial forestry.
Civil society organizations (including NGOs and CBOs)	- Provide technical and advocate for policy changes in the interests of sustainable forestry development. - Provide a monitoring and watchdog role in advocating for the interests of disadvantaged or minority groups (such as youth, women, and indigenous peoples). - Mobilise local communities to participate in the development processes. - Monitor accountability and governance through independent reviews of forest operations and sector performance.
Media organizations	- Play an important role in promoting the values and importance of the forestry sector, - Hold government actors to account when implementation falls short of expectations.