

Insight



Investing for impact in African forestry

Practical thinking on investing for development

Insight is a series of practical and digestible lessons on the issues of private sector investment and development. They're based on our experiences, knowledge and research and are aimed at investors, businesses, development professionals, and anyone with an interest in private sector development.

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Executive summary

Sustainable planted forestry is, simply, the sustainable production of the timber that people worldwide need for construction, fuel, furniture, and other wood products. Beyond this, the sustainable forestry sector has vast potential for poverty alleviation, climate change mitigation, and biodiversity preservation.

British International Investment (BII) has supported the development of the forestry sector in Africa since its pioneering investment in the Tanganyika Wattle Company Limited (Tanwat) in the 1950s (as the Commonwealth Development Corporation). Since 2009, it has renewed its commitment to the sustainable forestry sector in Africa through \$200 million of new investments. The sustainable forestry sector has been commercially successful in developed markets such as North America and Europe, as well as in emerging markets in Asia. Adapting based on learnings from historical challenges and seizing new sector development opportunities will enable profitable sustainable forestry in sub-Saharan Africa too.

BII's commitment to supporting the sustainable forestry sector in Africa reflects a strong belief in the potential contributions of forestry to Africa's economic development as well as global climate change mitigation and adaptation. Sustainable forestry today means cultivating trees on previously degraded land rather than replacing natural forests with plantations. It also means active biodiversity management and meaningful community engagement.

The sustainable forestry sector in Africa has three key roles to play:

First, it plays a critical role in Africa's economic development. Forestry can be a driver of economic development in under-developed areas, as it is a primarily rural, labour-intensive industry with opportunities for increased local value addition through processing wood into commonly-used products. There is significant opportunity for growth of sustainable forestry in Africa, a continent that currently only accounts for 6.55 million hectares of planted forests compared to 290 million hectares globally, and is a net importer of processed wood products as well as the largest global consumer of fuelwood.

Global demand for wood is projected to rise by 36 per cent by 2050. There is strong potential for African sustainable planted forests to supply domestic and regional growth, as **meeting global demand will require an additional 33 million hectares of planted forests**. Capitalising on this opportunity will require learning from some of the lessons of the past 200-plus years of forestry sector development in Africa.

While making progress, the sector has lagged other emerging regions such as Asia, having suffered from 1) a lack of development in downstream processing and market development, 2) high plantation development costs, and 3) community conflicts over land rights. However, learning from those challenges, and building on the foundations set by multiple investors and growers to date, gives BII and its investees confidence in the prospects for the sector.

BII's investees have adapted to historical challenges by increasing their investments in processing capabilities to turn wood into higher-value, carbon-storing products and deepening genuine community engagement in the areas surrounding their operations. As a result, they have been able to achieve deep economic impact. In 2023, Green Resources AS (GRAS), a portfolio company of the African Forestry Impact Platform (AFIP), which is anchored by BII and managed by New Forests Asset Management (New Forests), reported 531 direct employees, with 1,970 daily contractors and third parties. GRAS procured \$19.4 million in local purchases, including \$4.4 million paid directly to smallholder farmers and suppliers adjacent to GRAS forestry assets. Miro, another BII investee, has created direct employment for 2,500 people in Ghana and Sierra Leone. The portfolio companies of Criterion Africa Partners

Contents

1. Executive summary	2
2. Introduction	5
3. What is sustainable forestry, and why is it important?	6
3.1 Meeting growing demand for wood products	7
3.2 Job creation and economic growth	8
3.3 Climate change mitigation	9
3.4 Biodiversity preservation	11
4. The history of forestry in Africa	14
4.1 Sector development and investment	14
4.2 Challenges	16
5. The future of sustainable forestry in Africa	22
6. Future impact of AFIP investment	33
7. Conclusion	35

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(CAP), which manages the BII-anchored Africa Sustainable Forestry Fund, have created direct employment for 3,500 people in mostly rural, under-developed areas across five African countries, with \$29 million flowing back to communities through annual salary payments in 2020 alone. In addition to direct employment, CAP's portfolio companies also procure \$54 million worth of goods and services every year from its forestry contractors and other small and medium-sized enterprises (SMEs), which employ a further 5,100 people fully dedicated to supporting CAP portfolio companies – creating a sustainable 'flywheel' that helps drive local economic development.

There is both an opportunity to establish new planted forests in sub-Saharan Africa and to improve the management and expansion of existing sustainable forestry companies, thereby creating commercially viable businesses that are generating incomes and shared value for communities.

Second, sustainable planted forests play a critical role in fighting climate change. Agriculture, forestry, and other land use (AFOLU) emissions represent 24 per cent of global greenhouse gas (GHG) emissions. Therefore, any successful climate change mitigation strategy must include a sustainable approach to these activities. Furthermore, the global and African demand for wood is ever-growing and outstripping the supply capacity of natural forests. Demand for charcoal and fuelwood is a major cause of deforestation, hence **sustainably-grown timber is a crucial way to meet demand for wood while preventing further deforestation of natural forests, in tandem with zero deforestation approaches that address other drivers.** Global demand will reach 3.1 billion cubic meters (m³) of roundwood in 2050. Without planted forests, much of this demand would have to be met by the continued and unsustainable deforestation of the world's natural forests, accelerating damage caused by other key deforestation drivers such as agriculture and charcoal production.

Planted forests also serve as a carbon store and produce sustainable substitutes for high-emissions construction and consumer materials, supporting the shift to a bioeconomy. It is possible that new direct carbon capture technologies may eventually provide a cost-effective means of atmospheric carbon removal, but in the meantime, trees remain the original and most cost-effective carbon sequestration technology.

The role of sustainable forestry in carbon storage may seem counterintuitive because, after agriculture, wood harvesting is the human activity that has historically most reduced the storage of carbon in vegetation and soils. But although forestry still involves harvesting trees, a well-managed sustainable planted forest is actively growing trees that absorb carbon, potentially for decades before the trees are harvested. Once the trees are harvested, new trees are planted as replacements, and all the carbon stored within the felled trees is not automatically released back into the atmosphere. If those harvested trees are used to produce long-lived products, such as furniture or timber used in building materials, then the carbon stored within the wood can be considered sequestered.

Timber construction and consumer materials are also examples of how planted forestry can provide sustainable alternatives to traditional building materials such as steel and concrete. The construction sector is the most emissions-heavy sector of all, accounting for 39 per cent of global emissions, largely due to the energy-intensive production of steel and concrete. Replacing these materials with renewable and durable timber products can not only reduce construction emissions by 2 tons of carbon dioxide (tCO₂) per m³ of material substituted, but also enables long-term carbon storage within these wood products.

Demand for wood-based, carbon-storing substitutes for construction and consumer products is likely to grow as global consumers shift from unsustainable petroleum-based plastics to more sustainably-produced alternatives, increasing the importance of growing more trees to meet this demand.

Third, sustainable forestry companies can serve as stewards of high-value conservation and biodiversity areas within their concessions, while ensuring their operations do not negatively impact biodiversity.

The Forest Stewardship Council (FSC) requires that certified companies do not convert natural forests or other high conservation value areas into planted forests, but rather develop already degraded land. It also requires that areas within planted forests be set aside for conservation, with genetic, species, and ecosystem diversity maintained, restored, or enhanced. In these conservation areas, sustainable planted forestry companies actively manage fire risks, erosion and infrastructure impact, and invasive species spread to maintain the biodiversity functioning of conservation areas. Forestry companies also consider how to link conservation areas to other areas within their planted forests or key areas outside their planted forests, to create wildlife corridors.

These enhanced biodiversity sinks within plantation areas will be preserved as long as the sustainable forestry companies maintain a consistent protective presence in these areas through their business operations. If the market for biodiversity credits establishes itself, there could also be future opportunities for more ambitious projects with biodiversity preservation and enhancement as their central objectives. Forestry companies experienced in sustainable landscape management will be well placed to bring capital and knowledge to biodiversity projects as the market matures and scales, building on their existing experience with carbon credit projects that have significant associated biodiversity benefits.

Given the significant potential of sustainable planted forestry in Africa for economic development, climate change mitigation, and biodiversity preservation, it is critical for development finance to engage with the sector, building on sector experience to date.

Significant capital is needed to continue supporting sustainable forestry companies in Africa as they industrialise through the addition of more processing capabilities and grow towards a steady state of profitable harvesting and planting. The long-term capital requirement for the forestry sector in Africa could be in the tens of billions of dollars, and development finance institutions (DFIs) such as BII will play an increasingly important role in capital deployment and transitioning wider sector actors to more sustainable practices. As a key enabler of investment success, BII also recognises the importance of partnering with proven management teams that have geographical and sector specialisation.

BII's most recent investments in Miro, the second Africa Sustainable Forestry Fund (managed by CAP), and the new African Forestry Impact Platform (AFIP) serve as a demonstration of its investment strategy and the types of impact BII intends to achieve in the sustainable forestry sector in Africa. For example, on top of commercially producing FSC-certified sustainable timber and wood products that reduce deforestation pressures on native forests, New Forests Africa has included four impact strategies in its fund targets for AFIP to measure improvements in net carbon removals, biodiversity and habitat quality, gender inclusion, and quality of livelihoods for adjacent communities.

To conclude, forestry has had a long history in Africa, not all of it positive, and investors and forestry companies have learned many lessons along the way. BII believes additional investment in the sector, specifically to improve the management of existing planted forests and sustainable forestry businesses and increase primary and secondary processing capacity, will transform sustainable forestry in Africa and generate a positive impact on livelihoods, climate change mitigation, and biodiversity.



2

Introduction

Sustainable forestry has a critical role to play in Africa's economic development as well as in global climate change mitigation. Forestry can be a driver of economic development in especially under-developed areas, as it is a primarily rural, labour-intensive industry with opportunities for increased local value addition through developing capacity to process wood into commonly-used products. Agriculture, forestry, and land use emissions also represent 24 per cent of GHG emissions,¹ and any successful climate change mitigation strategy has to include a sustainable approach to these activities. Furthermore, the global and African demand for wood is ever-growing and outstripping the capacity of natural forests to supply that demand – sustainably growing timber is a crucial way to meet the demand for wood while preventing additional deforestation of natural forests.

BII has supported the development of the forestry sector in Africa since its pioneering investment in the Tanganyika Wattle Company Limited (Tanwat) in the 1950s (as the Commonwealth Development Corporation). Since 2009, BII has renewed its commitment to the forestry sector in Africa through \$200 million of new direct and indirect investments.

However, there have been historical challenges in the development of the forestry sector in Africa, as well as current concerns and criticisms, such as how new land is made available for sustainable planted forestry, the impact of monoculture forestry on biodiversity, and the role of carbon finance in the forestry sector.

Given BII's belief in the potential contributions of sustainable forestry to Africa's economic development, as well as to global climate change mitigation and improved livelihoods for local communities, this paper aims to address common concerns and misperceptions regarding the sector, and present BII's vision for the future of sustainable forestry in Africa.

It begins with an introduction to sustainable forestry and an overview of forestry sector development in Africa, along with historical challenges and how BII investees have evolved to do things differently. The following sections then consider the future of sustainable forestry in Africa and the impact rationales behind BII's recent investments in Criterion Africa Partner's (CAP) Africa Sustainable Forestry Fund (ASFF) I and II,² Miro Forestry,³ and in New Forests Asset Management's (New Forests) African Forestry Impact Platform (AFIP).⁴

1 IPCC, 2022. *Climate Change 2022 - Mitigation of Climate Change*. Working Group III contribution to the Sixth Assessment Report.

2 <https://www.bii.co.uk/en/our-impact/fund/africa-forestry-fund-ii-investment-01/>

3 <https://www.bii.co.uk/en/our-impact/direct-header/miro-forestry-developments-limited/>

4 <https://www.bii.co.uk/en/our-impact/fund/african-forestry-impact-platform-investment-01/>



3

What is sustainable forestry, and why is it important?

For millennia, forests have provided humans with biological assets such as wood for use in the built environment and in everyday life. Today, over 4 billion hectares of forests around the world, of which around 290 million hectares are planted forests, produce more than 5,000 types of wood products, which generate an annual gross value add of just over \$600 billion, about 1 per cent of global gross domestic product (GDP). Over 1.6 billion people's livelihoods depend on forests for timber, food, fuel, jobs and shelter.⁵ Sustainable forestry today means cultivating trees on previously degraded land rather than replacing natural forests with plantations. It also means active biodiversity management and meaningful community engagement.

Planted forestry makes a business out of growing trees to produce wood products such as 'roundwood' (logs) or more processed timber products, including sawn timber, electricity poles, paper, charcoal and engineered wood products (EWPs) such as plywood. Planted forestry can both sustainably meet the growing global demand for wood products, generate jobs and contribute to economic growth in the communities where it operates. It can also contribute to climate change mitigation and biodiversity preservation. Figures 1 and 2 (next page) depict the forestry value chain, globally and in Africa, with estimates of the quantities involved, starting with the forests themselves and ending with the end uses.

3.1 Meeting growing demand for wood products

An analogy can be made between forestry and agriculture, as both sectors grow things people need. In both forestry and agriculture, crops are planted, harvested and turned into products that benefit people. Investment by DFIs in both sectors could be justified by their developmental importance as producers of needed goods and as sources of employment. Yet with agriculture, the focus of development policy is often on improving yields and market access to raise farmer incomes and reduce food prices, whereas with forestry, environmental aspects such as carbon sequestration and biodiversity often take precedence, and its more prosaic economic contributions can be neglected.

⁵ FAO. 2022. *The State of the World's Forests 2022. Forest pathways for green recovery and building inclusive, resilient and sustainable economies*. Rome, FAO.

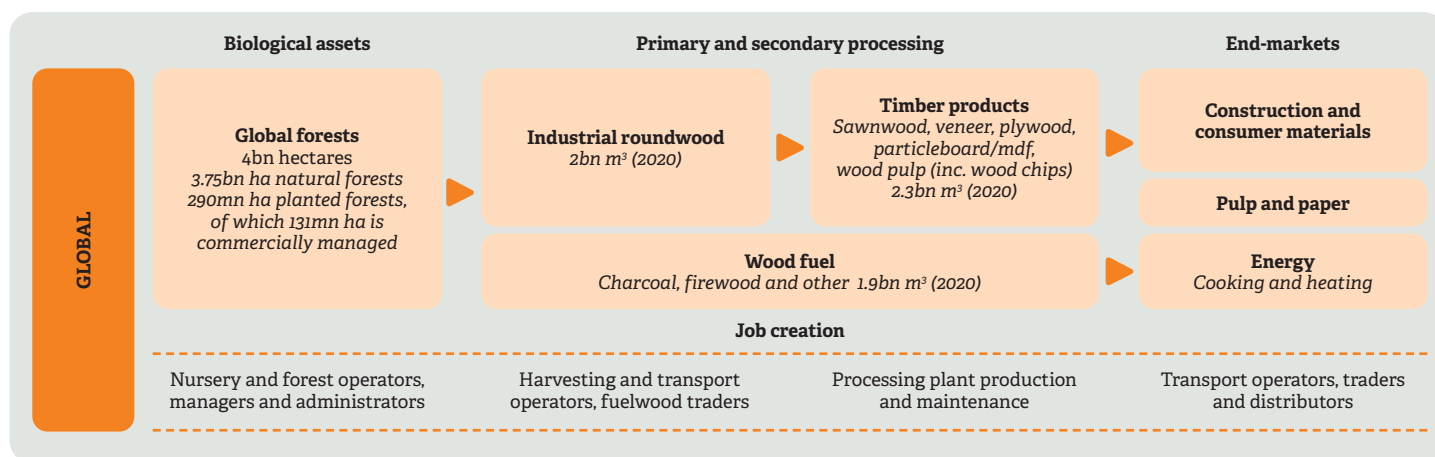


Figure 1: Global timber value chain and job creation (based on FAOSTAT 2022 data)

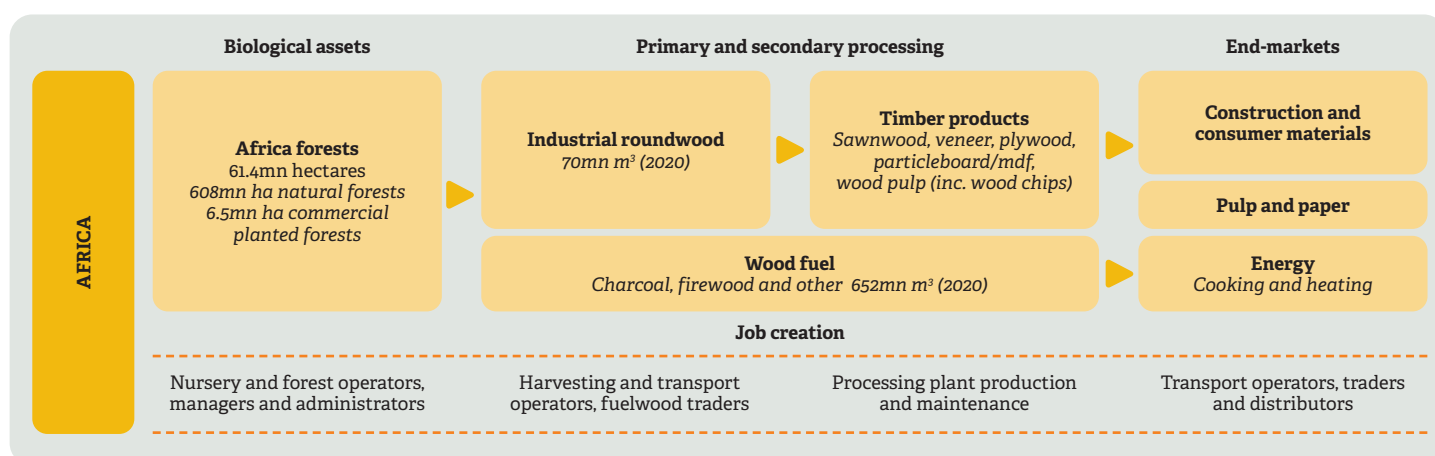


Figure 2: African timber value chain and job creation (based on FAOSTAT 2022 data)

But forestry can be a much more commercially challenging sector than agriculture – whereas a maize or vegetable farmer can plant and harvest within months, tree growers often wait between five and 25 years for trees to grow before they can harvest.

Although trees have long rotation cycles, the global demand for wood-based products continues to grow, contributing to the increasing deforestation rate of natural forests. According to the Food and Agriculture Organization (FAO) of the United Nations, global consumption of wood products may increase at a compound annual growth rate (CAGR) of 1 per cent. This sounds low, but it translates into over 30 per cent growth in demand for wood between 2020 and 2050, with demand reaching 3.1 billion cubic meters (m³) of roundwood in 2050.⁶ Without planted forests, much of this demand would have to be met by the continued and unsustainable deforestation of the world’s natural forests, accelerating damage caused by other key deforestation drivers such as agriculture and charcoal production.

The growth in wood demand is partially driven by demand for long-lived products (LLP), which are sawn wood, wood panels, and other industrial roundwood. Although East Asia (mostly China), Europe, and Northern America accounted for 82 per cent of global consumption in 2020, future demand growth will likely come overwhelmingly from Asia, due to economic growth, consumer urbanisation trends, and booming construction.

⁶ FAO. 2022. *Global forest sector outlook 2050: Assessing future demand and sources of timber for a sustainable economy – Background paper for The State of the World’s Forests 2022*. FAO Forestry Working Paper, No. 31. Rome.

Global demand for fuel wood (classified as very-short-lived products – wood fuel [VSLP–WFL]) is also forecasted to grow, increasing by 20-40 per cent to 2.3-2.6 billion m³ in 2050, from 1.9 billion in 2020. In 2020, around 2.3 billion people depended on wood fuel such as charcoal as their main source of energy for cooking and heating, primarily in Africa and Southern Asia.

Sub-Saharan Africa is the largest consumer of fuelwood globally, consuming one-third of all fuelwood. Driven by charcoal usage, fuelwood consumption in sub-Saharan Africa could grow to somewhere between 630 million and 920 million m³ by 2050. Consumption has already increased by 58 per cent, or at 1.5 per cent CAGR, from 1990 to 2020, whereas some Asian regions (e.g., China and Southeast Asia) have experienced over 40 per cent decline in fuelwood consumption between 1990 and 2020, due to growth in alternative energy sources and urbanisation.⁷

FAO forecasts show that to meet global industrial wood product and fuelwood demand of 5.7 billion m³ in 2050, up from 3.7 billion m³ in 2010, production would need to increase by 54 per cent, or 2 billion m³. Currently, 46 per cent of global industrial roundwood is sourced from planted forests, mainly in Europe and Northern America (60 per cent of production), although planted forests represent only 3 per cent of overall forest area. With natural forests at harvest capacity, FAO and others estimate that **33 million hectares of new, or greenfield, highly productive and commercial planted forests would need to be established to meet demand up to 2050.**⁸

3.2 Job creation and economic growth

Forestry, both directly and indirectly, employs over 30 million people globally.⁹ Planted forests employ staff directly to cultivate tree seedlings in nurseries, to provide silvicultural management services such as thinning, pruning, and fire management, and to carry out tasks such as operating machinery in processing facilities. Planted forests also provide indirect employment by hiring other companies, often SME contractors, to outsource services such as silvicultural management, harvesting, transportation, and more.

BII believes sustainable forestry in Africa can be an important driver of job creation and inclusive growth through its supply chains. For example, Green Resources AS (GRAS), an AFIP portfolio company, reported 531 direct employees, with 1,970 daily contractors and third parties. GRAS procured \$19.4 million in local purchases, including \$4.4 million that was paid directly to smallholder farmers and suppliers adjacent to GRAS forestry assets.

Miro, another BII investee, has supported direct employment for 2,500 people in Ghana and Sierra Leone. Portfolio companies of BII investee CAP have supported direct employment for 3,500 people in mostly rural, under-developed areas across five African countries, with \$29 million flowing back to communities through annual salary payments in 2020. In addition to direct employment, CAP's portfolio companies procure \$54 million worth of goods and services yearly from its forestry contractors and other SMEs, which employ another 5,100 people. This illustrates the direct impact on communities and a virtuous cycle created by the operations of commercially sustainable forestry companies. Deepened community engagement by BII's investees, along with gender initiatives in a historically male-dominated sector, will also deepen the inclusive growth impact of its forestry investments.



Driven by charcoal usage, fuelwood consumption in sub-Saharan Africa could grow to somewhere between 630 million and 920 million m³ by 2050.

7 Gatsby Africa, Criterion Africa Partners and Wellspring Development. 2023. *Investment opportunities in forestry in Sub-Saharan Africa – Lessons from 30 years of African commercial forestry investments and what this means for the future.*

8 Ibid.

9 <https://ilostat.ilo.org/forest-sector-employs-33-million-around-the-world-according-to-new-global-estimates/>

The growth of forestry value chains is also typically linked to gross domestic product (GDP) growth, urbanisation, and import substitution. As the sector grows, sustainable forestry provides opportunities to produce higher-value products for both local consumption (import substitution) and exports. Ideally, the whole tree can be turned into useful products. Larger diameter logs can be used to produce sawn timber or peeled to produce thin sheets of veneer, which can then be glued together to make plywood. Smaller logs and offcuts can be shredded to produce EWPs such as fibreboard and particleboard, or pulped to produce paper; waste products such as sawdust from milling timber can be turned into biomass or briquettes for other industries that need fuel to produce heat, or as a substitute for fuelwood gathered from natural forests. The companies in BII's forestry portfolio are already active in many of these areas.

Sustainable forestry's contribution to job creation and economic growth is also linked to its environmental impact, as the potential carbon and biodiversity benefits of sustainable forestry explored below require the foundation of a commercially sustainable industry.

3.3 Climate change mitigation

Sustainable planted forests serve as a carbon store, prevent deforestation of natural forests for timber products, and produce sustainable substitutes for high-emissions construction and consumer materials.

In the fight against climate change, forests have come to the forefront as valuable carbon sequestering and storage assets – they are the highest potential climate change mitigation solution. According to the Intergovernmental Panel on Climate Change (IPCC), the AFOLU sector encompasses managed ecosystems such as planted forests, and can provide 20-30 per cent of the global GHG emissions mitigation needed to maintain a 1.5°C or 2.0°C pathway towards 2050.¹⁰ Forest-based solutions and other natural ecosystems provide the largest share of the mitigation potential, followed by agriculture and demand-side interventions.

Many new ventures are developing innovative direct carbon capture technology to combat climate change, which might eventually become a cost-effective means of atmospheric carbon removal. But in the meantime, trees remain the original and most cost-effective carbon sequestration technology. For example, existing, or brownfield, commercial planted forests in Africa can remove an incremental ton of carbon dioxide (tCO₂) from the atmosphere at a cost of \$7 through the incremental growth of existing trees as well as planting new trees to replace harvested ones, while smallholder tree planting could theoretically do it for less than half the cost (\$3 per tCO₂), though this estimate does not include the cost of smallholder labour and assumes no additional costs for land.¹¹ In contrast, some current technologies can cost more than \$1,000 per tCO₂ removed from the atmosphere, with the potential for costs to only fall to \$100 per tCO₂ within the next ten years after billions of dollars of additional investment.¹²

A well-managed sustainable planted forest entails actively growing trees, often on previously degraded and bare land, that absorb carbon potentially for decades before the trees are harvested. There are also sustainable approaches to harvesting – once blocks of planted forests reach maturity – that seek to maintain existing carbon stocks by ensuring an annual harvest does not exceed the growth of the planted forest, and that replanting takes place after harvesting.¹³



A well-managed sustainable planted forest entails actively growing trees, often on previously degraded and bare land, that absorb carbon potentially for decades before the trees are harvested.

¹⁰ IPCC, 2022. *Climate Change 2022 - Mitigation of Climate Change*, Working Group III contribution to the Sixth Assessment Report.

¹¹ Criterion Africa Partners and Indufor Oy. 2017. *Allocating Capital for Maximum Impact in Africa's Plantation Forestry Sector*.

¹² <https://www.science.org/content/article/us-unveils-plans-for-large-facilities-to-capture-carbon-directly-from-air>

¹³ Nature Journal. 2023. *The carbon costs of global wood harvests*.

Once the trees are harvested, all the carbon stored within those trees is not automatically released back into the atmosphere – it depends on the products those trees are used to produce. If the harvested trees are used to produce long-lived products (LLP), including sawn timber for furniture and construction or other EWPs such as plywood, fibreboards, and cross-laminated timber (CLT) used in building, as mentioned previously, then the carbon stored within the wood is considered permanently sequestered.¹⁴

These distinctions have led to different carbon-accounting approaches for commercial forestry and wood use that takes into account emissions changes from land-use change, i.e. by converting previously degraded land to planted forests, from the rotation lengths of different trees (how long trees stay in the ground before they are harvested), and from the lifecycle of wood products.

Between 2010-2019, the AFOLU (managed land) sector accounted for 13–21 per cent of global total anthropogenic GHG emissions, largely from agriculture. At the same time, however, managed and natural terrestrial ecosystems, including planted forests, were a carbon sink, absorbing around one-third of anthropogenic CO₂ emissions.¹⁵ It is likely, then, that the positive contribution of planted forests to climate change mitigation hugely outweighs its emissions.

Further, as detailed above, demand for wood products will continue to grow. Better for that wood to be purposefully and sustainably grown on planted forests rather than to continue denuding natural forests to meet human needs, which not only has dire climate change consequences but also contributes to the destruction of global biodiversity.

Since the 1990s, sub-Saharan Africa has lost over 100 million hectares of forest cover, which equates to a deforestation rate of 1 per cent or 3.5 million hectares per year,¹⁶ spread across every region of the continent. Slowing down the rate of deforestation in sub-Saharan Africa by providing alternative sources of wood and energy and engaging in more sustainable food production is crucial, as the continent accounts for 16 per cent of remaining global natural forest area, and forests provide many ecosystem services. For instance, trees absorb carbon and help filter the air and water. They also help prevent or regulate natural disturbances, providing protection from soil erosion, rock falls, water run-off during cyclones, and high tides. In coastal areas, mangrove forests shelter local populations from tsunamis and sequester carbon at even higher rates than terrestrial forests, and forests provide critical support for species-related and genetic biodiversity.

Using wood products may also indeed have other knock-on benefits for climate change mitigation. For instance, wooden transmission poles support electrification in rural areas that can mitigate charcoal use and related deforestation of natural forests.



Slowing down the rate of deforestation in sub-Saharan Africa by providing alternative sources of wood and energy and engaging in more sustainable food production is crucial.

14 2021. Removals are considered permanent if the effect is maintained for at least 20 years. Form International & Precious Forests Foundation. *The voluntary carbon market as an opportunity for the sustainable forest management sector.*

15 IPCC. 2022. *Climate Change 2022 - Mitigation of Climate Change*, Working Group III contribution to the Sixth Assessment Report.

16 FAO. 2020. *Global Forest Resource Assessment 2020*. Rome, FAO.

Additionally, timber construction and consumer materials found across global markets are useful illustrations of how commercial forestry can provide sustainable alternatives to traditional building materials such as steel and concrete. According to the FAO, the construction sector is the most emissions-heavy sector of all, accounting for 39 per cent of global emissions, largely due to the energy-intensive production of steel and concrete. Although some innovative timber products such as CLT are still in the early stages of adoption worldwide, increasing the adoption of timber construction materials and replacing steel and concrete with renewable and durable products such as CLT can not only reduce construction emissions by 2 tCO₂ per m³ of material substituted, but also enables long-term carbon storage within these wood products. CLT is as strong as concrete but at one-fifth of the weight, and can be used to build walls, roofs, and floors.¹⁷

Demand for wood-based, carbon-storing substitutes for construction and consumer products will likely grow as global consumers shift from unsustainable petroleum-based plastics to more sustainably produced alternatives, increasing the importance of growing more trees to meet this demand. See, for example, the current ubiquity of paper straws as substitutes for unrecyclable plastic straws in coffee shops and restaurants worldwide. Another example is that of CPS, a Tanzanian real estate developer planning to leverage CLT in the sustainable construction of affordable housing.¹⁸

3.4 Biodiversity preservation

The sustainable forestry sector in Africa has made great progress towards following stringent environmental standards to ensure planted forests do not negatively impact biodiversity.

In the very early days of commercial forestry, there were instances of land being cleared of native vegetation to accommodate planted forests, as is still the case for agriculture in many areas of the world.

While poor behaviour still exists in some areas of the commercial forestry sector, the sustainable planted forestry sector today is very different. The Forest Stewardship Council (FSC) provides two certifications key for accessing many global timber markets. It also ensures that certified forestry companies comply with social and environmental standards for the sector.

The Forest Management Certification (FMC) requires that companies do not convert natural forests or other high conservation value areas into planted forests, but rather plant on already degraded land. It also requires that areas within planted forests be set aside for conservation, with genetic, species, and ecosystem diversity maintained, restored, or enhanced.

The Chain of Custody (CoC) certification requires that FSC-certified wood can be accurately traced from forests to end markets, so that consumers can be assured their wood products were produced from sustainably grown and harvested timber. Of course, as mentioned previously, planted forests also prevent the destruction of natural forests for wood harvest by providing an alternative supply of wood, which in turn prevents biodiversity loss.

¹⁷ A coalition of 17 countries announced a commitment to encouraging the use of timber from sustainably managed forests in construction, at COP 28. An FAQ on this topic, written by the Forest Climate Leaders Partnership can be found here: <https://forestclimateleaders.org/wp-content/uploads/2023/12/Greening-construction-sustainable-wood-FAQ.pdf>

¹⁸ Based on discussions in Dar es Salaam, April, 2022. <https://cps.africa/>

Sustainable forestry companies can also serve as stewards of high value conservation and biodiversity areas within their planted forests.

Biodiversity only remains if high-value conservation areas are preserved, and commercial forestry companies can maintain a consistent protective presence in these areas through their business operations. Other conservation efforts may be short-lived or rely on uncertain grant cycles. As the case study [below] illustrates, there can be stark differences in the loss of natural landscapes and biodiversity between areas with a consistent steward, in this case a sustainable planted teak forestry company in Tanzania, and areas without active conservation efforts.

Case study: Kilombero Valley Teak Company (KVTC)



KVTC, a BII investee company managed by Criterion Africa Partners, operates a concession of 28,000 ha in Tanzania. Today, only 30 per cent of that concession is used for teak production (with trees planted on previously degraded land), while 70 per cent is dedicated to conservation of natural miombo woodlands. KVTC interspersed planted teak compartments with miombo woodlands that act as wildlife corridors. With careful conservation efforts, there has only been a 3 per cent loss in forest cover within KVTC boundaries over the period between 1991 and 2013. In the areas bordering the concession, however, there has been a 31 per cent loss in forest cover over the same period.

As mentioned above, FSC certification requires that planted forests set aside areas for conservation, especially areas with high biodiversity value. BII investees contribute meaningfully to biodiversity preservation, as portfolio companies typically set aside much more than the FSC-required 10 per cent of land concessions for conservation. For example, **across CAP's planted forestry portfolio companies, 40 per cent of land is dedicated to conservation, amounting to 65,723 hectares of conservation areas. AFIP portfolio company GRAS has 35,000 hectares of conservation areas and buffer zones, along with 19,700 hectares of riparian zones and catchment areas. Miro preserves over 10,000 hectares of riverine and wildlife corridors among 20,000 hectares of sustainably planted forests.**

In these conservation areas, sustainable forestry companies actively manage fire risks, erosion and infrastructure impact, and invasive species spread to maintain the biodiversity functioning of conservation areas.

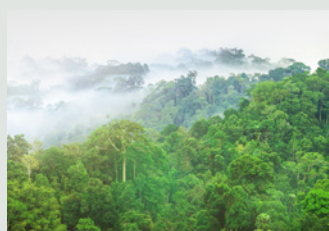
Fire risk management includes building fire breaks that protect planted trees as well as conservation areas, and ecological burning, which is an often-forgotten component of fire management and conservation. There are many types of natural landscapes that require periodic ecological burning to maintain their biodiversity function.

Erosion and infrastructure impact management includes monitoring landscapes for erosion risks and planning the placement of roads needed to service planted forests so that impact on conservation areas and wildlife movement is minimised.

» ***FSC certification requires that planted forests set aside areas for conservation, especially areas with high biodiversity value.***

Invasive species management addresses one of the key biodiversity criticisms of monoculture planted forests that often introduce non-native species to a specific area. For example, eucalyptus is a common species in planted forests, and is criticised for both its invasiveness and high water usage. However, not all eucalyptus is created equal – invasiveness between different species of eucalyptus trees varies widely. Therefore, species selection is key in preventing the spread of invasive non-native trees. Sustainable forestry best practice also calls for active monitoring of high-value conservation and biodiversity areas to catch and root out any early spread of invasive species. And eucalyptus water use can be minimised by avoiding planting in riparian or buffer zones (such as wetlands or the areas surrounding rivers and streams) and analysing the water and climactic conditions of prospective planted areas to avoid planting eucalyptus in already water-stressed areas.

Case study: Kikonda Central Forest Reserve



The Kikonda Central Forest Reserve in western Uganda was created in 1963 and covers 12,186 hectares. Global Woods, a portfolio company of CAP, secured the concession for the reserve in 2002, planting pine and eucalyptus alongside 3,700 hectares of conserved areas of wetlands, date palms, and grasslands.

It might be counterintuitive to believe that the involvement of a forestry company in a forest reserve would be a boon for biodiversity, but the numbers speak for themselves. Global Woods' sustainable forest management has seen the number of recorded mammals increase to 30 species (comprising 9 per cent of total species in Uganda) and birds increase to 296 species (27 per cent of the total in Uganda) over the last eight years.

Forestry companies also consider how to link conservation areas to other areas within their planted forests or key areas outside their planted forests, to create wildlife corridors. For example, Mountain to Ocean (MTO), a South African portfolio company of CAP, applies a landscape analysis approach using state-of-the-art geographic information system (GIS) and biodiversity spatial mapping. MTO uses GIS data gathered by the South African National Biodiversity Institution (SANBI) to not only map areas of high biodiversity and conservation value within their planting blocks, but also to understand the larger ecosystem role of planted forest landscapes within surrounding regions. This includes mapping wildlife and ecosystem services flows and active management of water catchment areas.

And, in addition to biodiversity preservation and enhancement, there may be more opportunities for the sustainable forestry sector to contribute to active biodiversity restoration as well, as explored later in this paper.



4

The history of forestry in Africa

4.1 Sector development and investment

The commercial forestry sector in Africa began with private sector-led projects in South Africa in the 1800s, and the forestry sector in South Africa is still thriving today, with 1.2 million hectares of planted forests and global processing players in the timber, pulp, and paper industries. Parastatal investments driven by \$300 million of funding from the World Bank in the 1980s led to the development of 185,000 hectares of forestry projects outside of South Africa, across Kenya, Tanzania, Uganda, Malawi, Zimbabwe, Zambia, Rwanda, Burundi, Madagascar, Ghana, Nigeria, and Cote d'Ivoire.¹⁹

From the 1950s until 2000, BII (then known under another name) played a critical role in establishing large-scale greenfield forestry projects in three countries in sub-Saharan Africa. In total, BII invested and operated 132,000 hectares of forestry assets in Eswatini, Tanzania and South Sudan, supported by large operational and technical teams on the ground. BII helped establish the pulp and paper industry in Eswatini through 70,000 hectares of softwood plantations and a pulp mill in 1961. BII also invested and operated two projects in Tanzania, the Kilombero Valley Teak Company (KVTC) established in 1992 with 28,000 hectares of land (8,000 hectares planted), and the Tanzania Wattle Company (Tanwat) established in the 1950s, an integrated wattle tree export project with 18,000 hectares of forestry assets. All companies established by BII before 2000 have been divested and are operational today under new management and investors. Other DFI investors such as Finland's Finnfund, the Netherlands' FMO, and Norway's Norfund, have also played key roles in greenfield planted forest establishment. Indeed, 60 per cent of the capital for greenfield projects in Africa have come from DFIs.²⁰



60 per cent of the capital for greenfield projects in Africa have come from DFIs.

¹⁹ Gatsby Africa, Criterion Africa Partners and Wellspring Development. 2023.

²⁰ Ibid.

Since the 1990s, 21 large-scale commercial planted forestry projects have been developed by the private sector outside of South Africa (including projects backed by BII and other DFIs), as shown in Figure 3 below. Based on CAP data, circa \$1.4 billion has been invested to develop 190,000 hectares of forestry assets in sub-Saharan Africa (excluding South Africa, parastatal projects, tropical forestry, and smallholder projects).²¹ Although the recent scale of investment has been relatively large, the 190,000 hectares of forestry assets developed with these investments account for less than 1 per cent of overall forest cover in the region and only 5 per cent of total planted forests including parastatal plantations. Out of 21 projects developed, there are now 15 forestry companies still operational.

BII made its first investments into sustainable forestry platforms, anchoring the first Africa Sustainable Forestry Fund (ASFF I) in 2009, managed by Global Environment Fund (GEF) originally and now by CAP, with a follow-on investment into ASFF II in 2018. BII also made an investment into the West African planted forestry company Miro in 2015, and continues to support Miro's growth with follow-on investments, the most recent of which was in 2023. AgDevCo, a BII investee and specialist agriculture investment fund, announced a \$10 million investment in New Forests Company, one of the leading integrated forestry operations in East Africa, in 2022.

Also in 2022, BII, Finnfund, Norfund, and the global forestry investment manager New Forests Asset Management, announced a partnership to scale and transform the sustainable forestry sector in sub-Saharan Africa, launching the African Forestry Impact Platform (AFIP) as a joint venture to invest in the sustainable development and active management of forestry assets in the region. With an initial investment of \$200 million, New Forests was able to acquire GRAS, East Africa's largest forest development and wood processing company. AFIP is notably only the second sustainable forestry investment private capital vehicle in Africa, after CAP's ASFF.

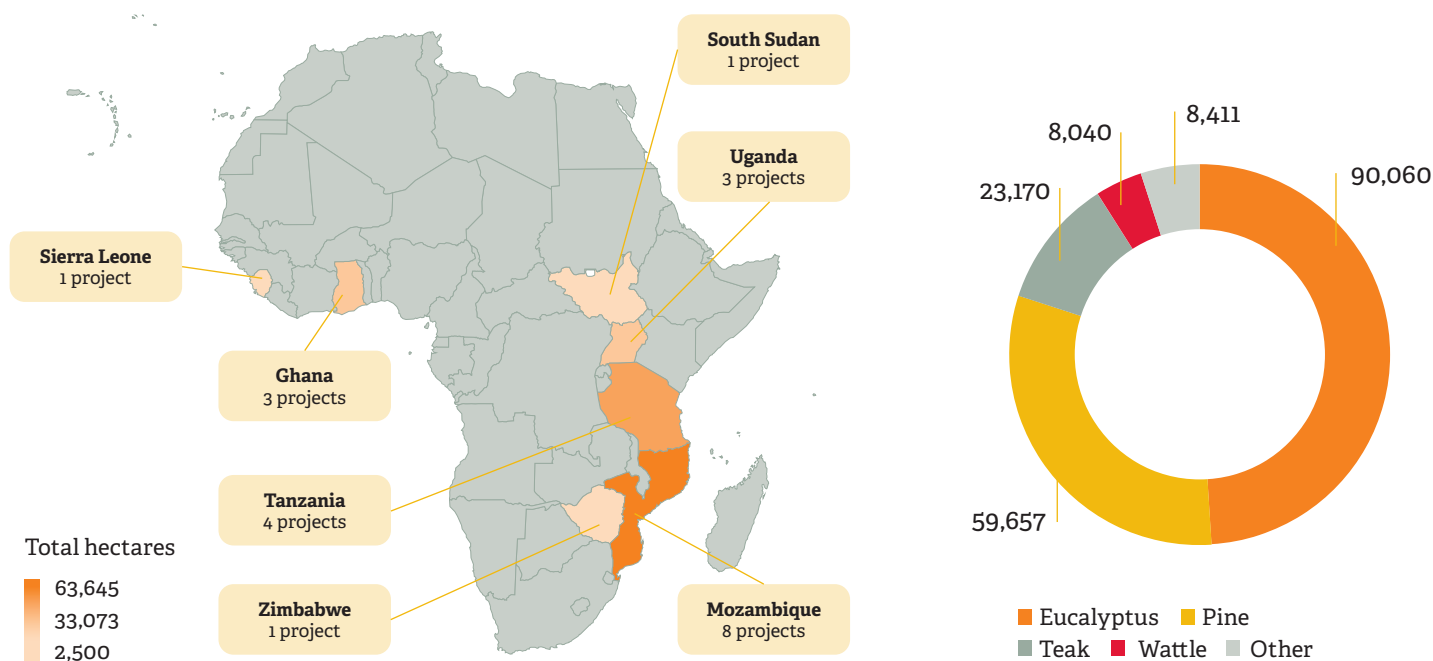


Figure 3: Footprint of private-sector led projects outside of South Africa by country and species
 Source: Gatsby Africa, Criterion Africa Partners and Wellspring Development. 2023

²¹ Ibid. This estimate does not represent the total size of land concessions for forestry projects, only portions of those land concessions that have been cultivated as planted forests.



Figure 4: BII investments into forestry in sub-Saharan Africa over the last 80 years
Source: BII and Wellspring, 2023

4.2 Challenges

Over the past 200-plus years of forestry sector development in sub-Saharan Africa, there have, of course, been many challenges and lessons learned. Key challenges include, in hindsight, 1) lack of focus on downstream processing and finding markets for wood, 2) high cost of establishing and maintaining newly planted forests, leading to poor investment returns to date, and 3) community conflicts over land rights. Another challenge has been the lack of a commercially viable and sustainable model for smallholder forestry.

Processing and markets

Investments in sub-Saharan Africa forestry have mainly focused on creating new planted forests in a limited number of countries. Recent analysis shows that 70 per cent of the \$1.4 billion of capital invested has gone to develop greenfield projects in Mozambique, Tanzania, and Uganda across 12 companies, while only 11 per cent has gone towards establishing industrial processing capabilities.²²

²² Gatsby Africa, Criterion Africa Partners and Wellspring Development. 2023.

However, this approach has overlooked the importance of investing in downstream processing to convert trees into saleable wood products and of finding diverse local and export markets in which to sell these products profitably. Unlike more developed timber markets in North America and Europe, where forestry companies do not need to give much thought as to where to sell their trees, pathways to markets, especially to higher-value export markets, are less established for the forestry sector in Africa. Without processing and pathways to profitable markets for all the trees that were planted with previous investments, it has been difficult to turn forestry into a commercially sustainable sector in Africa. For example, as much as 95 per cent of the wood harvest from planted forests (as well as natural forests) in Mozambique has historically been exported to China, but with little value addition processing of the wood. This means the wood was sold for very low prices, and Mozambican forestry companies and communities did not capture the additional economic value that could have been created through processing the wood into higher-priced products.²³

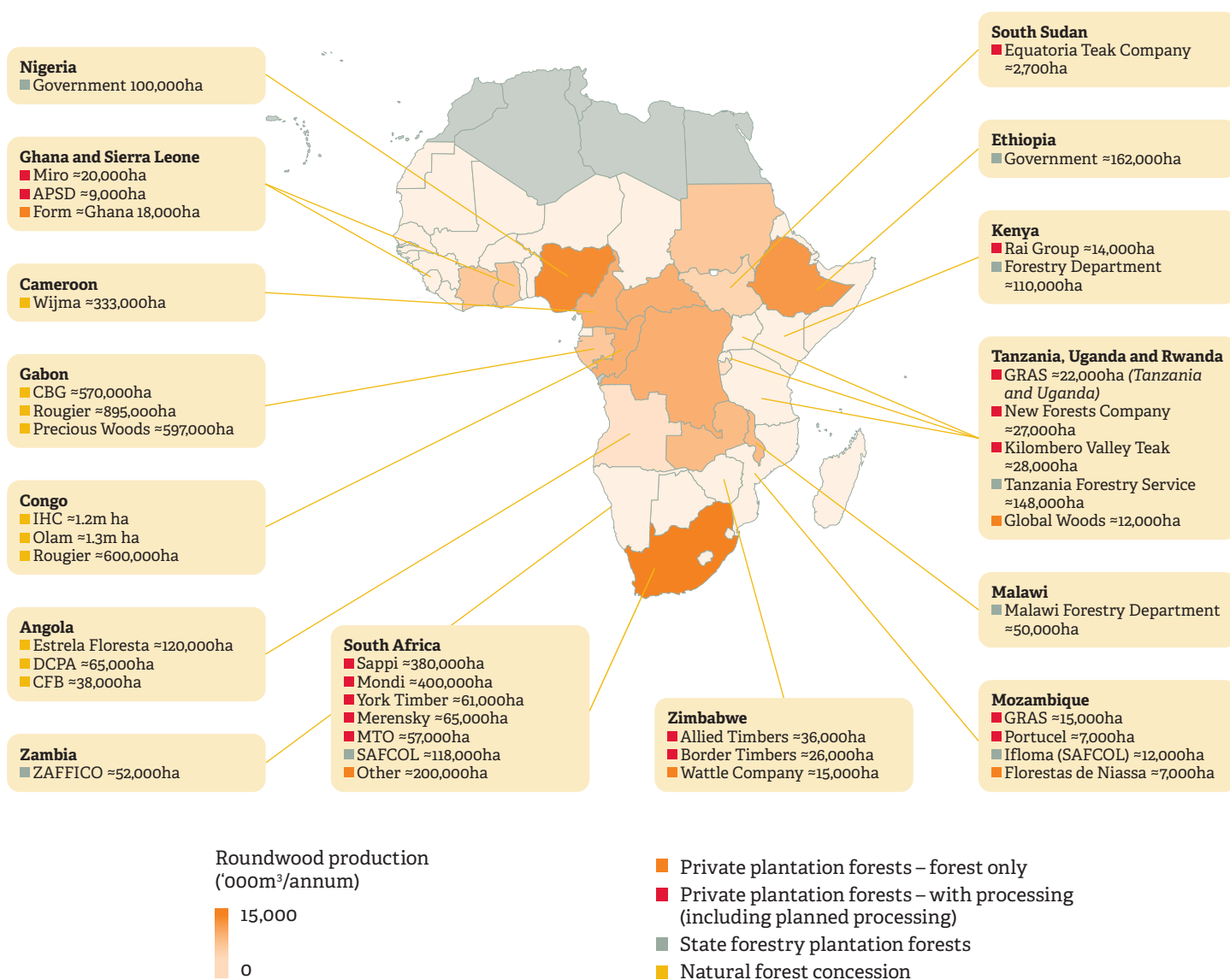


Figure 5: Investment landscape in the sub-Saharan Africa forestry sector²⁴
Source: BII and Margules Groome, 2020.

²³ Wellspring consultations and fieldwork in Mozambique, September, 2022.

²⁴ Small-scale private investors also play a significant role in the forestry sector as resource owners in some countries, especially in East Africa. Areas owned and/or in production in aggregate by small-scale private investors in forestry: 156,000 hectares (ha) in Uganda; 427,500 ha in Tanzania; 10,000 ha in Kenya; 9,200 ha in Sierra Leone; 343,200 ha in South Africa; 639,400 ha in Ethiopia.

High costs

In a nutshell, investors in the commercial forestry sector in Africa have experienced disappointing returns because of the high historical costs of establishing and operating greenfield planted forests, the long time horizon before planted forests can generate revenues, and too much focus on planting and not enough on securing end markets for wood products.

Based on recent analysis across African forestry projects up to 2022, the average all-in cash cost per hectare of greenfield planting was \$6,500, excluding investments in processing capacity, compared to a possible cost of under \$3,000 per hectare which was achieved by some projects. This includes large up-front costs to establish the planted forest and ongoing maintenance costs up to harvest. Some common drivers of this relatively high average cost included high overheads, due to the presence of many expatriate management teams, and required investments in governance and environmental and social (E&S) management.²⁵

Most of these projects were also led by individuals and financial sponsors with limited prior experience and day-to-day involvement in the silvicultural as well as commercial side of forestry operations. Some also had limited experience operating in the geographies where projects were executed. This lack of technical and context-specific 'operator' expertise led to missteps in site-appropriate species selection, obtaining optimal yield and quality from planted forests, community engagement (discussed below), and ability to access profitable markets. This is one of the historical challenges that BII has especially focused on addressing, as the section below on BII's sustainable forestry strategy describes.

After the large up-front cost to establish planted forests, investors must then wait up to two decades until this expensive asset can generate revenues. For example, eucalyptus harvest rotations are typically six to 12 years for poles or pulp, and 15 to 22 years for sawlogs. For pine and teak, typical rotations are even longer at 20 to 25 years. In addition, once trees can be harvested, significant harvest and transportation logistics costs can also eat into investor returns.

In the meantime, forestry operators must find ways to continue financing the silvicultural maintenance of their planted forests, which is important to ensure quality of the forestry asset for target end-markets. This has historically proven challenging, although there is potential for early revenues from thinning small or too-closely spaced trees for pulp and pole end-markets, particularly for eucalyptus species, to offset pruning and other maintenance costs. For example, several of the 15 forestry projects analysed recently lacked early investors able to commit large amounts of capital on an ongoing basis up to the project's financial break-even.²⁶ Other sponsors of greenfield projects have taken a phased approach to fundraising, relying on multiple capital-raising rounds over time, leading to delays and lag-time between rounds. This resulted in a periodic lack of funds to maintain existing forestry assets, which then incurred more costs for rehabilitation.

²⁵ Gatsby Africa, Criterion Africa Partners and Wellspring Development. 2023.

²⁶ Ibid.

As a result of high upfront and ongoing costs, many projects were not able to generate sufficient cashflows to service debt and provide target returns to equity investors. Most of the large-scale forestry projects in Africa are still immature, yet to generate steady-state cashflows, and will continue to require substantial capital as they transition to mature companies and reach their profitability targets. At present, existing commercial forestry projects in Africa (excluding South Africa) generate \$90 million in revenues and \$4 million in EBITDA (earnings before interest, taxes, depreciation and amortisation) annually.²⁷ However, there are signs that the sustainable forestry sector in Africa is turning the corner towards improved business models and commercial success, with BII's sustainable forestry strategy backing experienced management teams and delivering much-needed capital to improve sector performance, as explored in the next sections.

Community conflicts

Local community engagement is another important aspect of sustainable planted forestry. If communities surrounding forestry operations do not benefit from forestry, not only will it be difficult for the sector to deliver on its promise of improving livelihoods and alleviating poverty, but it can also increase risks of community sabotage of planted forests, ranging from arson to timber theft.

However, historical approaches to securing land for forestry, and low levels of consultations with communities by forestry asset owners, have led to poor community relations that pre-date BII investment. Greenfield projects often secured land to establish planted forests via government concessions. CAP cited that many of its portfolio companies had a historical misconception that the land granted via these concessions had been unoccupied. In reality, surrounding communities had traditional claims to the land and had been using the land for housing, small-scale agriculture, and livestock grazing for generations. When new forestry companies arrived and began telling communities (without any prior consultation) that they could no longer occupy this land, it led to prolonged conflicts and highly controversial evictions in some cases. For instance, Green Resources Limited, an East African forestry company, and since 2023 an asset of AFIP, faced extensive community conflict and censure from non-governmental organisations (NGOs) after acquiring land from the Government of Uganda (GoU) for planted forest establishment in the 1990s. Some of these conflicts took almost a decade to resolve. New Forests Company (NFC), another large East African forestry company and an investee of BII-funded investor AgDevCo, was also involved in community grievances over two land concessions secured from the GoU.²⁸ In the NFC example, the Office of the Compliance Advisor Ombudsman of the International Finance Corporation mediated a settlement between NFC and the two affected communities, leading to NFC financial support for community cooperatives, development initiatives, and the acquisition of land for community resettlement.²⁹

In addition to land conflicts, a lack of early community consultations also led to misaligned expectations in terms of the number and quality of jobs created by commercial forestry projects and improvements to local infrastructure and services. This contributed to the erosion of local trust in the ability of the forestry sector to improve lives and benefit communities. BII investees have since made significant strides in forging positive community relationships, as explored further in the sections below.



The sustainable forestry sector in Africa is turning the corner towards improved business models and commercial success.

²⁷ Ibid.

²⁸ Wellspring research and fieldwork conducted February, 2022.

²⁹ 2015. The Office of the Compliance Advisor Ombudsman (CAO). *A Journey Toward Solutions: A Story of Community-Company Dispute Resolution in Uganda*.

Smallholder forestry

Smallholder forestry has the potential to create shared value for communities through partnerships with larger sustainable forestry companies, in which smallholders grow and supply trees to forestry companies for processing, and forestry companies offer a market for smallholder-produced trees. This partnership can be highly impactful in forging positive community relationships, creating additional sources of income for smallholders. For example, analysis has shown that the investment needed per hectare for smallholder forestry can be much lower than that needed for a commercial greenfield project, using an illustrative estimate of \$2,700 per hectare including in-kind contributions of land and labour.³⁰

Despite efforts to date, however, there is no concrete proof that smallholder forestry is working sustainably in sub-Saharan Africa (outside of South Africa) in terms of continued replanting or scalability. The recent demise of Komaza, a Kenyan company that had received around \$60 million in investment³¹ for an ambitious eucalyptus smallholder outgrower and processor model, is an unfortunate illustration of this statement.

Currently, South Africa is the only place where smallholder forestry is working sustainably and at scale in sub-Saharan Africa, because the necessary end-markets, economies of scale, and infrastructure exist, highlighting the importance of these factors for sustainable development of smallholder forestry. For example, paper giants Sappi and Mondi have extensive smallholder and medium-sized producer outgrower networks. Moreover, NCT is a commercially successful, vertically-integrated, employee-owned cooperative of 1,800 independent timber growers that processes the forestry assets of its members into sawn timber, pulp, and biomass chips.

Outside of South Africa, smallholder forestry initiatives in sub-Saharan Africa have mainly been supported by donors and government, although there has been some private sector activity as well. In the Tanzanian Southern Highlands, initiatives such as the Finnish-funded Participatory Plantation Forestry Programme has supported the establishment of smallholder woodlots, alongside some outgrower activity by commercial forestry companies. In Uganda, the donor-funded Sawlog Production Grant Scheme has incentivised small and medium producers to establish newly planted forests over the last 15 years, mostly of pine.

However, the vast majority of smallholders in sub-Saharan Africa have yet to find reliable markets for their trees. Although large international and smaller informal processors in East Africa are buying some trees from small producers, and a few commercial forestry companies in Africa have explored smallholder supply models as part of a wider E&S strategy, senior stakeholders from commercial off-takers noted that smallholder supply models are not yet profitable for them, due to costs of providing inputs and extension support to smallholders and the risks of smallholders harvesting trees early or side-selling timber to other buyers. Formal and FSC-certified forestry operators in sub-Saharan Africa also currently prefer to buy only higher-quality trees for utility poles (often only 5 per cent of a smallholder crop) and/or sawn timber, with any remaining produce often being sold into informal markets for lower prices.

³⁰ Criterion Africa Partners and Indufor Oy. 2017.

³¹ <https://komaza.com/company/>

Smallholder forestry has been far more successful in Asia, where smallholder-planted tree lots have become widespread and contribute significantly to wood supply in the region and globally. Smallholder forestry succeeded in Asia and South Africa because the growers have somewhere to sell the trees profitably. Rather than being corporate social responsibility (CSR)-driven or donor-driven (as much of smallholder forestry in the rest of sub-Saharan Africa has been thus far), a market-led approach, beginning with customers for the end-products that can generate value from the whole tree, is the key to ensuring that smallholder forestry is commercially sustainable. Smallholder activities can also be anchored by a larger commercial processing operation nearby that can both provide off-take as well as process smallholder tree harvests into marketable wood products and help these wood products find routes to market, in a model that Gatsby Africa's forestry team terms "hub-and-spoke." The future of forestry in sub-Saharan Africa may include this model, but first, the sector must build downstream processing capabilities and find reliable customers at prices that make the whole value chain economically viable.



5

The future of sustainable forestry in Africa

This paper has been candid in assessing the history of forestry in Africa along with the many challenges. However, learnings from these early missteps are what give investors and sustainable forestry companies in the sector confidence in its future positive development. This development is critical, because the African sustainable forestry sector will become ever more important in meeting growing global and regional wood demand, as well as in generating economic growth.

BII is committed to supporting sustainable forestry in Africa, because it believes investment in sustainable forestry can improve rural livelihoods across the continent, through increasing the productivity of existing sustainable planted forests, increasing sustainability of the wider sector, and driving increased inclusivity of the sector to benefit local communities. In doing so, the sector can also deliver a deep impact in climate change mitigation and biodiversity preservation.

Forestry is defined as a nature-based solution by the International Union for Conservation of Nature (IUCN), which includes “actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.” The IPCC also recognises the forestry sector as integral to keeping the global temperature rise below 1.5°C.

» ***BII is committed to supporting sustainable forestry in Africa, because it believes investment in sustainable forestry can improve rural livelihoods across the continent.***

BII sees an opportunity to catalyse this important sector in Africa as part of its climate change agenda and its Paris Agreement alignment approach, by investing patient, risk-tolerant capital to address sector inefficiencies and catalyse additional investment into the sustainable forestry sector in Africa.

It is more important than ever for BII to engage with sustainable forestry in Africa, building from its experience to date. Significant capital will be required across the 15 sub-Saharan African forestry companies that exist today, to continue supporting their industrialisation through the addition of more processing capabilities and growth towards steady-state revenues.

At the same time, the investor base has shifted as commercially-oriented investors, including timber companies and commercial funds, have shied away from new investments in African forestry due to low investment returns and considerations, such as currency depreciation and country operating risks, that could heavily discount future returns.

That means that DFIs such as BII will play an increasingly important role in capital deployment into this sector, to bring existing planted forests and the companies that own them to profitability and commercial sustainability. BII's new forestry Catalyst³² investment strategy leverages its ability to invest catalytic capital to help develop individual assets and the African forestry sector more broadly. BII hopes its holistic strategy for engagement in sustainable African forestry will demonstrate the investment case and attract more commercial investors into the sector going forward.

In addition, BII is exploring opportunities to harness its recently introduced Kinetic³³ investment strategy to invest into higher-risk climate-focused opportunities that have the potential to be transformative for the forestry value chain or the areas around BII's forestry assets. Such opportunities may include applying a "landscape" approach around BII's anchor forestry assets and investing into complementary and innovative projects that reinforce the community livelihoods, climate change mitigation, and biodiversity preservation impact of BII's core sustainable forestry investments. These potential projects could include initiatives that support forestry companies in turning biomass waste products from timber processing into useful substances such as biochar, which can enrich soils as well as store carbon underground, or in scaling agroforestry practices, which help farmers combine agriculture with tree cultivation by intercropping trees with other cultivars or planting trees that can provide shade for other crops or demarcate field borders.

BII's involvement is crucial, because the historical experience of the forestry sector in Africa has shown it is not an easy sector to invest in successfully, as the first section of this paper described. However, BII's investment strategy not only aims to provide the appropriate type of patient, risk-tolerant capital to the sector, it also incorporates the lessons of experience. As a DFI, BII adheres to the highest environmental, social, and governance (ESG) standards in all its investments, and forestry is no exception. Its investments demonstrate the potential for a forestry sector that operates according to rigorous sustainability and ESG standards.

By incorporating lessons from historical sector experience, and with BII's continued support, the future of sustainable forestry in Africa is promising.



BII's investment strategy not only aims to provide the appropriate type of patient, risk-tolerant capital to the sector, it also incorporates the lessons of experience.

³² <https://www.bii.co.uk/en/about/our-company/investment-portfolios/catalyst/>

³³ <https://www.bii.co.uk/en/about/our-company/investment-portfolios/kinetic/>

First, existing sustainable forestry companies are well-positioned to accelerate up the learning curve as focus shifts towards downstream processing and pathways to profitable markets.

Many African forestry companies have recently begun focusing their attention on turning their timber into profitable, sustainably produced wood products, by investing in primary processing facilities to mill trees into roundwood and sawn timber, and secondary processing facilities to manufacture other products such as utility poles, veneer, and plywood for the domestic and international markets.

BII investees have led this charge. For example, Miro, the largest West African sustainable planted forestry company with operations in Sierra Leone and Ghana, has invested in the processing capacity to manufacture plywood, utility poles, and finger-jointed edge-glued wood panels. In 2023, Miro raised another \$24 million in investment from the American Development Finance Corporation (DFC) to support the construction of new timber processing capacity and expand sustainable forestry on previously degraded land.³⁴ Among CAP's eight portfolio companies, processing investments have been made in sawn timber, utility poles, veneer, plywood, pulpwood, and pine resin. New Forests' AFIP is also focusing on an industrialisation strategy for its assets, with its current portfolio company Green Resources moving ahead with additional investments to expand existing processing capacity that includes sawn timber, veneer, utility pole production, and biomass.

To continue addressing historical challenges around lack of focus on processing and markets, BII projects further investments into anchor forestry assets over the next five years, focused first on improving the operations and profitability of existing sustainable forestry companies through processing capacity increases and development of wood products aligned to domestic, regional, and global market demand.

The next area of focus will be around diversifying end markets for wood products generated by sustainable forestry in Africa and growing African sustainable forestry companies' share of sales in those product markets. Regionally, planted forests in conjunction with increased local processing capacity can meet the needs of a growing African middle class with a growing demand for furniture and other finished wood products, much of which is currently imported. The commercial forestry sector can also support sustainable mass timber construction to address a housing shortage estimated to be 160 million units by 2050. Innovative projects can help more sustainably feed the continent's high fuelwood demand, by supplying biomass made with the waste products of sawmilling rather than natural forest wood.

The continent could play a meaningful role in supplying timber products for global markets, leveraging its logistical routes to Asia and Europe and existing export channels. To access these global markets, the forestry sector in Africa will also increasingly focus on sustainable timber by expanding the coverage of certifications from organisations such as FSC, Programme for the Endorsement of Forest Certification (PEFC), and relevant standards of the International Organization for Standardization (ISO).

» *The next area of focus will be around diversifying end markets for wood products generated by sustainable forestry in Africa.*

³⁴ <https://www.dfc.gov/media/press-releases/dfc-invest-24-million-miro-expand-sustainable-forestry-and-create-new-jobs>

Second, the development of newly planted forests is needed to combat high rates of natural forest deforestation across the continent and to supply growing global wood demand.

Unfortunately, deforestation of natural forests in sub-Saharan Africa has significantly outpaced the development of new planted forestry projects by more than 50 times. As mentioned earlier, sub-Saharan Africa has lost over 100 million hectares of forest cover since the 1990s. But only 2 million hectares of new planted forests have been added, most of them owned by parastatal organisations.³⁵

As this paper has articulated, sustainable forestry contributes to climate change mitigation and biodiversity preservation in many ways, but chief among those for sub-Saharan Africa is the prevention of continued natural forest deforestation by providing sustainably-produced alternatives for timber and fuelwood, and sustainable forestry-based livelihoods. Key drivers of deforestation in Africa include the expansion of smallholder agriculture for subsistence farming, charcoal production, and illegal logging (with exports of logs from West Africa to Asia a main contributor to this last driver).

Sub-Saharan Africa is gaining 63,000 hectares per year of newly planted forests, but this number is a drop in the ocean compared to the deforestation rate. East and Southern Africa have accounted for approximately 80 per cent of the growth in planted forests, highlighting limited development in West and Central Africa. South Africa alone accounts for more than 30 per cent of planted forests in sub-Saharan Africa, or 1.2 million hectares out of 3.6 million hectares.

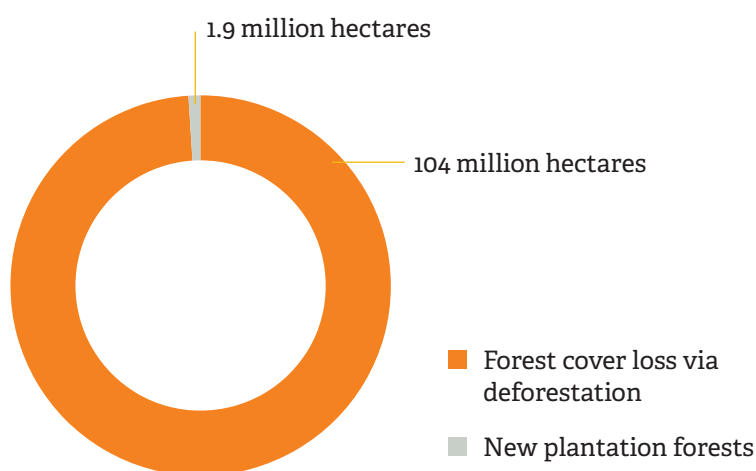


Figure 6: Changes in forest cover in sub-Saharan Africa over the past 30 years
Source: FAO

Globally, current wood production levels will not be able to sustain demand requirements by 2050 due to the demand growth in Asia for processed timber products mentioned. Sub-Saharan Africa currently only makes up 4 per cent of global roundwood production, but more sustainable production of industrial roundwood could be an important export opportunity, especially as current industrial roundwood production of 77 million m³ in sub-Saharan Africa is already more than the continent's 2050 demand forecast of 43 million m³. Growth in sub-Saharan Africa's industrial roundwood production could play a large role in meeting forecast global demand of 3.1 billion m³ for industrial roundwood in 2050 while generating export revenues and industrialisation growth for the continent.

³⁵ Gatsby Africa, Criterion Africa Partners and Wellspring Development. 2023.

To generate this growth in African roundwood production and address historical challenges around high forestry establishment and maintenance costs driven by lack of technical expertise and poor forest management, BII aims to partner with proven management teams that have demonstrated experience of operating commercial and investment platforms dedicated to sustainable forestry in Africa. The challenges that the sector has experienced to date highlight the importance of sector specialisation and geographical expertise in commercial forestry. The CAP team which manages ASFF has 125 years of collective forestry experience, and global forestry manager New Forests, the fund manager of AFIP, has almost 20 years of operating history, managing 1.3 million hectares of forests globally.

BII's forestry investments are FSC-certified or aligned to FSC standards, which means it is supporting the production of sustainable timber that can prevent further deforestation of natural African forests and contribute to climate change mitigation by storing carbon within planted forest landscapes and long-lived wood products. For example, CAP's portfolio companies produced 1.6 million m³ of sustainably harvested wood in 2018. Miro is currently harvesting around 80,000 m³ per year and is targeting 100,000 m³ of sustainable plywood production per year in the near term. Miro is also generating carbon credits from planted forestry afforestation and permanent natural forest afforestation and reforestation through its dedicated conservation areas, carrying out enrichment planting of native species such as mahogany and ceiba.

Third, growth of the sustainable forestry sector will be increasingly inclusive of surrounding communities through prioritising community engagement.

After the early experience of community conflicts described above, sustainable forestry companies in Africa have now adopted rigorous land procurement procedures, community engagement mechanisms, and community grievance resolution processes, along with a multitude of programmes meant to benefit populations surrounding forestry operations.

BII's sustainable forestry strategy emphasises social inclusiveness as a key enabling condition for successful investments. The strategy calls for the incorporation of FSC principles, stakeholder roundtables with a diverse array of participants from investees, communities, the NGO sector, and government and public institutions, and consultative and transparent land tenure agreements.

Across BII investees, community benefits – such as land lease fees, funding for schools, clinics, and infrastructure, and non-timber community livelihood improvement opportunities (such as the production of other high-value crops) – are common and growing. For example, Green Resources has improved community relations in Uganda and built positive community relationships in Tanzania through a structured grievance resolution process and a variety of projects including provision of food support for vulnerable community members, construction of classrooms, staff dormitories, health facilities, roads, and annual contributions to a community development fund.

Miro allows local communities to access wood waste and byproducts for individual use, and some BII investees donate seedlings to smallholders on their boundaries. One investee said that for every \$1 invested in donating seedlings, it saves \$2 in security and fire management costs. Smallholders not only grow trees that can one day supply the processing activities of commercial forestry companies, but are now also incentivised to contribute to protecting their own woodlots and the surrounding areas from fire and other risks.

CAP has focused on increasing its portfolio companies' management capacity in community and stakeholder engagement, including in managing potential land use conflicts. CAP's portfolio companies also contribute to local community social funds, increase access to safe water, and provide skills development and capacity building not only for their own employees, but also for SME contractors.



BII's sustainable forestry strategy emphasises social inclusiveness as a key enabling condition for successful investments.

Lastly, carbon finance will become increasingly important to the economics and impact case of sustainable forestry in Africa.

Before discussing how carbon markets are relevant for sustainable forestry, it is first important to understand what carbon markets are. At their core, carbon markets represent the buying and selling of equivalent units, or credits, of one ton of carbon dioxide emissions (tCO₂).

There are two types of carbon markets, compliance markets and voluntary markets. In compliance markets, carbon credits are traded to comply (hence the name) with regional, national or international regulations that limit the allowable emissions of entities under their jurisdiction, such as private companies. For instance, in California's Cap-and-Trade Program, companies in the state that would otherwise exceed their emissions allowances can buy carbon offsets or allowances from other companies.

In voluntary carbon markets, which are at present the only market relevant for forestry in Africa (as there are yet to be regional compliance markets or mechanisms that might allow African issuers to sell credits into other compliance markets), carbon credits are generated through private or sometimes government projects, and sold to anyone wanting to buy them. For example, much of the demand has come from energy companies that are seeking ways to offset their carbon emissions, and other private companies which have made "net zero" commitments, which means that the amount of carbon generated from their operations (such as their residual emissions), must be balanced with the amount of carbon sequestered from the atmosphere, but only when full decarbonisation actions have been taken.

Projects can generate removal or avoidance credits, which represent, respectively, the incremental sequestration of a tCO₂ from the atmosphere or the avoidance of a tCO₂ that would have otherwise been emitted into the atmosphere.

In the African sustainable forestry sector, carbon finance could play an increasingly important role in 1) improving the risk/return profile of forestry investments by providing a revenue stream while new planting projects are yet to reach harvest maturity, 2) creating more shared value for communities through benefits-sharing and group scheme projects for carbon credit revenues, and 3) incentivising improved management of existing planted forests and conservation areas, and potentially making the planting of permanently restored areas economically viable. In turn, the consistent implementation and longevity of carbon projects will often require the stewardship of commercially sustainable forestry companies.

In terms of improving the risk/return profile of forestry investments in Africa, a recent retrospective analysis of 15 greenfield projects indicated that carbon credit revenues generated from plantation Afforestation, Reforestation, and Revegetation (ARR) – a type of carbon offset methodology that generates removal credits³⁶ – could have contributed 20 per cent to the total costs of establishing the trees on their first rotation.³⁷ This contribution could be materially higher if lessons learned from past challenges mean new greenfield projects are implemented with a lower cost profile.

Carbon credits can only be issued where they are additional, such as where the climate action would have been unlikely to occur without the carbon credit revenue making the project economically viable. For Africa, with its relatively nascent forestry market and high costs and uncertainty in setting up new greenfield sustainable planted forests, carbon finance could be an important lever to scaling these more sustainable models.

³⁶ Afforestation = creating a new forest, Reforestation = recreating a forest that has disappeared, and Revegetation = replanting and rebuilding the soil of disturbed land. Gatsby Africa, Criterion Africa Partners and Wellspring Development. 2023.

³⁷ Ibid.

In terms of creating more shared value for communities, many natural forest ARR projects currently under development in Africa are exploring community benefit-share mechanisms. For example, one natural forest ARR project in East Africa, focused on reforesting areas of degraded land with native species, has targeted sharing 40 per cent of their eventual carbon credit revenues (forecasted to be in the tens of millions of dollars) with communities surrounding the designated project area, as a way of ensuring that communities benefit from natural landscape restoration and are incentivised to protect the boundaries of reforestation efforts.

Another natural ARR project in West Africa, focused on restoring areas of degraded mangrove forests along coastlines to generate higher-priced “blue” carbon credits, includes carbon credit revenue sharing as well as the payment of land leases and compensation to local communities in their anticipated community benefits-sharing mechanisms. However, as many natural ARR projects in Africa are still in their early stages of development, some of these projects caveated that they have yet to fully define and formalise benefit-sharing frameworks with communities.³⁸ Sustainable forestry companies can also create shared value for communities through carbon credit revenue sharing from planted forests. For example, Green Resources has just made its first payment to communities in Uganda from the sale of ARR carbon credits. Also, CMO, a CAP investee and forestry sector supply chain integrity services provider, currently provides group certification schemes to increase smallholder access to FSC certification but is also working with partners to leverage their capabilities for group carbon credit schemes to benefit smallholders.³⁹

In terms of incentivising improved management of both planted forests and conservation areas, operators of existing forestry companies could benefit from Improved Forest Management (IFM) carbon offset methodologies, which also create removal carbon credits, for example, by extending the rotation age of their trees and increasing the productivity (and hence tree growth) of existing planted forests. Further enhancement of the areas set aside for conservation within planted forest areas could lead to the ability to issue natural ARR carbon credits.

However, there has been recent controversy around the validity of avoidance carbon credits, which has had a spillover effect into the perception of removal credits, and criticism around voluntary carbon markets serving as a “licence to pollute” and enabling “carbon colonialism,” as unscrupulous project developers secure large tracts of land with little thought to community impacts or benefit-sharing.

Before exploring the criticisms around avoidance credits, it is worth emphasising that removal credits, those generated by the sustainable forestry and natural forest ARR projects described above, are very different from avoidance credits. It is much harder to know that deforestation has been avoided than it is to show that trees have been planted on bare land.

Avoidance carbon credits represent the overwhelming majority of carbon credits on the market today, with 77 per cent of credits generated through Reducing Emissions from Deforestation and Forest Degradation (REDD+) AFOLU projects, which tend to be much larger scale than removal projects such as ARR.⁴⁰ This is because it is easier and lower cost to protect large areas of existing forest landscapes, than to cover the same area with new site-appropriate trees and vegetation and successfully manage their growth. This is why highly-publicised recent research around the validity of avoidance carbon credits has seriously shaken the market. An international team of scientists found that across 26 voluntary REDD+ projects in six countries, only 6.1 per cent of expected carbon offsets were realised, with none of the African projects demonstrating any significant impact on deforestation prevention.⁴¹

³⁸ Based on review by Irene Hu of five recent natural and plantation ARR projects in East and West Africa and conversations with two carbon project developers currently developing projects across the continent.

³⁹ <https://cmogroup.io/#compliance>

⁴⁰ Form International & Precious Forests Foundation. *The voluntary carbon market as an opportunity for the sustainable forest management sector*. 2021.

⁴¹ <https://www.science.org/doi/10.1126/science.ade3535>

This inflation of the emissions avoidance benefits across these projects was likely caused by inaccurate baselines that inflated the projected rate of deforestation in the absence of these projects, as well as the selection of project sites in areas where conservation was already likely to succeed. In other words, the counterfactuals, or what deforestation would have been if these REDD+ projects had not existed, were assumed to be far more negative than was likely, which led to the projects generating phantom avoidance offsets.⁴² Although natural forest and planted forest ARR efforts generate removal credits rather than avoidance credits, the controversy surrounding avoidance credits has affected perceptions of these carbon sequestration efforts as well.

The appeal of avoidance credits, however, is scale and the immense value that standing forests hold as the home of indigenous peoples and as vital sinks of carbon and biodiversity. Removal credits can only scale at the pace at which suitable land can be found and trees can be planted, whereas in principle, very large areas of natural forest can be protected from destruction. It would, therefore, be greatly beneficial if a carbon market based on more robust methodologies for identifying genuine prevention of deforestation can emerge from today's unsatisfactory situation.

There has also been criticism that the voluntary carbon market acts as a "license to pollute," which centres around the risk that offsets reduce the incentives polluters have to decarbonise their operations. Carbon projects often pre-identify potential off-takers such as blue-chip multinationals seeking to meet net zero commitments, which can provide upfront payments to finance project implementation. But they are also often supported by fossil fuel companies which continue to be major contributors to global emissions. One argument is that these emissions are permanent, while the carbon credits used to offset these emissions are potentially only temporarily stored in nature-based solutions, such as forests that can burn in wildfires or be cut down after a carbon project ends.⁴³ It is therefore essential that offsets do not function as a substitute for the genuine decarbonisation of industry, but as an additional measure taken while the investments to decarbonise production are still being made.

Lastly, concerns have emerged around "carbon colonialism", with a potential new UN mechanism for country-to-country carbon offset trading spurring one carbon developer to acquire the rights to vast tracts of natural forests in Africa, in anticipation of the payday to come from generating and selling REDD+ credits into the large market that the new UN mechanism could create.⁴⁴ The carbon developer Blue Carbon (not to be confused with the type of carbon credits generated through ocean and coastal projects, also called blue carbon), has so far announced agreements to acquire the carbon rights to 20 per cent of Zimbabwe's land area, 10 per cent of Liberia, 10 per cent of Zambia, and 8 per cent of Tanzania, which may have consequences for community land rights and livelihoods.⁴⁵ Although some of these announcements are little more than statements of intent, such large deals raise concerns of being struck on unfavourable terms for the host country, with insufficient care given to the needs of local communities.

In principle, progress towards government regulation, including minimum requirements for community involvement, and carbon trading in compliance (as opposed to voluntary) markets, with international trading under Paris Agreement Article 6, could be a positive development. Opportunities for DFIs to participate in the implementation of large-scale natural forest protection in a responsible fashion may emerge.

⁴² <https://www.cam.ac.uk/stories/carbon-credits-hot-air>

⁴³ PowerShift Africa, et al. *The Africa Carbon Markets Initiative: A Wolf in Sheep's Clothing*. https://www.powershiftafrica.org/storage/publications/The%20Africa%20Carbon%20Markets%20Initiative%20Wolf%20in%20Sheep's%20Clothing_1693903765.pdf

⁴⁴ <https://www.bloomberg.com/news/articles/2023-11-29/dubai-firm-s-africa-ambitions-raises-carbon-colonialism-concerns>

⁴⁵ <https://www.theguardian.com/environment/2023/nov/30/the-new-scramble-for-africa-how-a-uae-sheikh-quietly-made-carbon-deals-for-forests-bigger-than-uk>

Carbon credits can be done the right way.

There is a crucial role for all stakeholders, including investors, to accelerate the adoption of the highest project quality and integrity practices, to deliver sustainable development outcomes and grow a high-quality carbon market to accelerate global decarbonisation by 2050.

The main problem in the market for removal credits is the perceived inability to distinguish poorly executed, or even fraudulent, projects from genuine and well-managed projects. Various efforts are underway to solidify the identification of high integrity carbon credits, including the publication of core carbon principles by Integrity Council for the Voluntary Carbon Market, and corresponding updates to the practices followed by issuers such as Verra, Gold Standard and Climate Action Reserve.⁴⁶

Case study: Miro's carbon capture



Miro has established and continues to manage 20,000 hectares of FSC-certified plantations in Ghana and Sierra Leone. It has also set aside another 10,000 hectares of riverine landscape and wildlife corridors around and between its plantations, in a mosaic landscape approach.

Through these efforts, Miro has so far generated 330,000 Verified Carbon Standard (VCS) credits from its operations, equivalent to 330,000 tonnes of carbon dioxide removed from the atmosphere. Beyond 2022, Miro estimates that its activities could generate significant additional carbon credits.

Case study: GRAS development of carbon projects

GRAS' climate change and adaptation goals include establishing new carbon projects, increasing its engagement with voluntary carbon markets and generating additional revenues that can be invested in its community development programmes.

GRAS has already generated 100,358 tCO₂ of verified ARR carbon credits in Uganda in 2023, sharing revenues with local communities, and is also exploring the development of two new carbon projects, including a project focused on afforestation.

The Voluntary Carbon Markets Integrity Initiative has developed a claims code of conduct that describes how companies using offsets can do so with integrity and transparency. As the carbon market continues to evolve and mature, including with the implementation of Article 6, further harmonisation and regulation on the highest quality standards is expected and to be welcomed by DFIs and impact-minded investors.

Carbon markets are best used when they provide revenue to scale nascent and high-impact climate solutions. Nature-based solutions such as Afforestation, Reforestation and Revegetation (ARR), which generate removal credits, can deliver up to one-third of the required emissions reductions needed by 2030 to meet Paris Agreement targets.⁴⁷ Carbon market business models around nature-based solutions are still in the early stages, but BII is actively developing its approach to using carbon markets to support sustainable forestry. BII and its investees adhere to high quality, integrity and ESG standards in carbon markets that can help ensure the integrity of carbon credits generated, ethical and consultative land procurement processes, and the realisation of benefits for local communities.

» **Nature-based solutions, such as ARR, can deliver up to one-third of the required emissions reductions needed by 2030 to meet Paris Agreement targets.**

⁴⁶ <https://icvcm.org/the-core-carbon-principles/>

⁴⁷ Form International & Precious Forests Foundation

In addition to supporting forestry companies in the creation and sale of high-integrity removal credits, BII will also be looking for future opportunities to invest in novel climate solutions with the potential to be transformational and help scale the whole market, while aiming for a deeper impact on local community inclusion and biodiversity.

It will review the case for investment into nature-based 'carbon-first' opportunities, where the sale of carbon credits is the sole or primary source of revenue for the investee or project. It will consider implementing this through and with existing portfolio companies, as well as through an intermediated approach and will look to harness the full spectrum of its catalytic capital toolkit, including its Catalyst, Kinetic and BII Plus technical assistance capabilities, given the asset class's nascency but potential impact. These could go hand-in-hand with more traditional commercial forestry approaches or on a standalone basis.

Carbon markets are only gaining in prominence. The global voluntary carbon credit market was valued at \$2 billion with 280 million carbon credits issued in 2022. This represents a decline of 20 per cent from 2021, on the back of increasing focus on quality carbon credits and an increase in lead times on the verification process due to recent controversies described above. However, the market is anticipated to grow 5x to \$10 billion by 2030 as companies see carbon mitigation as a non-discretionary part of their climate strategy spend.⁴⁸

Overall, carbon credits related to forestry and land use have also seen a 75 per cent average price increase from 2021 to 2022, with a more modest positive price trend in 2023 despite recent controversies around avoidance credits. ARR credits, the type of removal credits generated by some BII investees, have almost doubled in average price between 2021 and 2023.⁴⁹ For example, while one previous plantation ARR project in sub-Saharan Africa was only able to sell its carbon credits for \$1-2 per ton a few years ago, prices on the voluntary carbon market are currently averaging \$5-10 per ton, with higher prices for removal credits.⁵⁰ These trends are all opportunities that the sustainable forestry sector in Africa can capture.

Biodiversity credits are another novel financing solution which could play a role in sustainable forestry going forward.

The potential of payments for nature services in Africa extends beyond carbon credits. Various initiatives are attempting to establish a market for biodiversity protection and restoration, and in principle the potential for biodiverse natural forest restoration in Africa is enormous, if the money can be found to pay for it.⁵¹ Verra, the voluntary carbon credits certifier, has a biodiversity methodology under development, and some commercial nature-based project developers have launched their own biodiversity standards.⁵² As with carbon credits, projects would need careful design to ensure they bring benefits to local communities, with the incorporation of livelihood-generating activities. Successful biodiversity restoration will not just be about replanting with the right mix of trees and plants, it will mean maintaining forests as an asset that local people do not want to deplete by cutting down again.

⁴⁸ BCG. 2023. *The Voluntary Carbon Market is Thriving*. <https://www.bcg.com/publications/2023/why-the-voluntary-carbon-market-is-thriving>.

⁴⁹ Ecosystem Marketplace. November 28, 2023. *Paying for Quality: State of the Voluntary Carbon Markets 2023*.

⁵⁰ PowerShift Africa, et al.

⁵¹ The Biodiversity Investments—Researcher & Accelerator is one such initiative. See <https://www.xilva.global/news-and-blog/bira-accelerator>

⁵² See <https://verra.org/new-biodiversity-methodology/> and <https://carbon-pulse.com/199055/>

Defining and quantifying genuine biodiversity protection and restoration is an even more complex problem than quantifying carbon removal and avoidance, given there is no universal metric for biodiversity. However, progress is being made towards defining a functional unit of biodiversity that could serve as a credit, for example, by the Biodiversity Credit Alliance. To date, commercial projects with biodiversity benefits in Africa are not primarily focused on biodiversity restoration but rather on carbon credit generation with biodiversity co-benefits. However, the need for biodiversity restoration is great, and a functioning credits market for essential biodiversity ecosystem services could be a high potential opportunity for sustainable forestry in Africa going forward.



6

Future impact of AFIP investment

BII's most recent investment in AFIP serves as a demonstration of the types of impact it hopes to have through the sustainable forestry sector in Africa.

AFIP is its latest initiative in collaboration with the Norwegian DFI Norfund and Finnfund, the Finnish DFI, both of which have considerable experience in the forestry sector. This investment represents BII's implementation of its sustainable forestry strategy in Africa on a larger scale than previous investments, and with it, it hopes to strengthen the sustainable forestry industry across the continent. The launch of AFIP creates a second dedicated sustainable forestry platform on the continent, increasing the depth and breadth of strong sector stakeholders, and complementing the work being done by CAP. AFIP intends to attract institutional private capital, complementing local asset development capabilities with global operations standards to create viable commercial assets that are self-sustaining and provide economic, environmental, and social benefits. AFIP's structure as a permanent capital vehicle (PCV) also matches BII's commitment to providing the types of patient capital appropriate for sustainable forestry sector needs. As a PCV, AFIP will be able to focus on optimising the performance of its forestry assets and maximising the additional impact objectives described below over the long term, rather than returning capital to investors in the short term.

In addition to sector impact, and on top of generating FSC-certified sustainable timber and wood products that reduce deforestation pressures on native forests, AFIP believes that sustainable forestry and land use can contribute to achieving crucial impact around **climate, biodiversity, gender and diversity, as well as communities and livelihoods**. Sustainable forest management is an important part of a circular bioeconomy, and AFIP's impact objectives align with BII's impact aims for its sustainable forestry investments, to create both **economic opportunity** in terms of livelihoods and inclusive supply chains, and **environmental sustainability** through climate change mitigation and biodiversity impact.



AFIP's structure as a permanent capital vehicle (PCV) matches BII's commitment to providing the types of patient capital appropriate for sustainable forestry sector needs.

On climate, AFIP is targeting net removals of carbon from the atmosphere through potential activities such as carbon project development, improved management of existing planted forests, and future greenfield development, leveraging the Verified Carbon Standard, the UN's Clean Development Mechanism, and the FRESCOs tool for calculating the carbon sequestration of forestry and agroforestry projects. Further, New Forests, AFIP's fund manager, is committed to becoming net zero by 2050.

On biodiversity, AFIP is targeting increases in the area of quality habitat protected or restored, through potential activities such as linking high biodiversity-value areas, expanding conservation areas for potential future assets that are not already FSC-compliant, and generating biodiversity action plans for all portfolio companies.

On gender and diversity, New Forests will support its portfolio companies in achieving 2X Challenge qualification.⁵³ The forestry sector has historically been male-dominated, and New Forests is committed to holding its portfolio companies to a higher standard on gender.

On communities and livelihoods, AFIP is targeting increases in the number of people earning an income or additional or improved livelihood, through scaling the positive impacts of its portfolio companies for both internal and external stakeholders. Internal stakeholders include the direct and indirect staff employed by AFIP's portfolio companies as well as its contractors and suppliers, including SMEs. AFIP is committed to creating real and lasting impact for the communities surrounding its assets, rather than checking a box by holding one-time trainings or events. As such, AFIP is using tools such as WorkAhead⁵⁴ to conduct anonymous, extensive research with both internal and external stakeholders to gather honest feedback on what constitutes improved livelihoods to these stakeholders themselves.

To incentivise the achievement of AFIP's ambitious impact targets, New Forests, BII, and AFIP's other investors have established a performance incentive tied in part to meeting impact targets in the fund's first ten years. Namely, a portion of AFIP's carried interest, or the fund managers' share of fund profits after achieving a certain level of investment returns, is explicitly tied to reaching targets set for each of the four impact objectives described above, around climate, biodiversity, gender and diversity, and community and livelihoods. AFIP will collect baseline data against which impact targets will be measured for all portfolio companies during initial due diligence of potential acquisition targets, and then work closely with each portfolio company post-acquisition to draft action plans for each impact target and forecast impact over the next ten years, as well as define impact 'red flags' for immediate attention.

As AFIP is still in an early stage, it will work closely with BII and other investors to identify additional opportunities within sustainable forestry value chains to deepen impact for communities and the planet, and around the operations of its portfolio companies. These additional opportunities may be value chain investments in the landscapes outside the core sustainable forestry operations of AFIP's assets, but will be deeply aligned with AFIP's overall impact objectives.

⁵³ The 2X Challenge, launched at the G7 Summit in 2018, calls for participants to meet one of five criteria:

1) 51 per cent women ownership or business is founded by a woman, 2) 30 per cent women in senior leadership or on Board or Investment Committee, 3) 30-50 per cent share of women employed and compliance with another job quality indicator, 4) products or services that benefit women, and for intermediated investments, 5) 30 per cent of DFI loan proceeds or portfolio companies meet 2X criteria.

<https://www.2xchallenge.org/criteria>

⁵⁴ <https://www.workahead.co/>



7

Conclusion

Commercial forestry has had a long history in Africa, not all of it positive, and investors and companies have learned many lessons along the way. From here, additional investment in the sector, specifically to improve management of existing forestry operations, increase primary and secondary processing capacity, and establish newly planted forests, will transform sustainable forestry in Africa and generate positive impact on livelihoods, climate change mitigation, and biodiversity.

BII has supported the forestry sector in Africa since the 1950s and is committed to significant additional investments in sustainable forestry assets over the next five years. However, the long-term capital requirement for the sustainable forestry sector in Africa could be in the tens of billions of dollars. BII hopes its investments will catalyse capital from new and returning impact investors and development finance, as well as commercial investors.

Sustainable forestry is a unique sector that could offer an attractive investment alongside a compelling impact case, and it is a crucial part of AFOLU nature-based solutions that could contribute 20-30 per cent of the emissions reductions needed to mitigate global climate change. Global wood demand is growing, and investments in sustainable forestry are needed now, not only to prevent further deforestation of natural forests and demonstrate the commercial viability of the sector in Africa, but also to actively contribute to carbon sequestration.

For further information:

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Wellspring helps transform food systems and agricultural value chains to deliver positive impact. We provide high-quality strategic advisory and implementation support to development organisations and the private sector