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Sustainable Investments in forests for people, profit and nature

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[1] Food and Agriculture Organization of the United Nations
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[4] World Business Council For Sustainable Development
[5] United Nations Environment Programme
[6] International Tropical Timber Organization
[7] Global Environment Facility
[8] World Bank
[9] Kreditanstalt für Wiederaufbau

Nota Bene: This paper is a result of a collaborative effort, with contributions from members of the WFC Private Sector Investment Forum's organization committee. Operating as a food for thoughts and background document for the Investment Forum, it does not serve academic purposes but helps to provide information and context elements to support discussions at the Investment Forum.

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Abstract

2020 – 2030 has been labelled the Decade of Action and there is much work to be done if the world is going to reach the ambitions of the 2030 Agenda for Sustainable Development. In addition, the United Nations also named 2021-2030 the Decade on Ecosystem Restoration, highlighting the significant contributions that restoration can make to sustainable development. Forests are recognized as an important pillar to achieve those ambitions as they deliver multiple ecosystem services and are a key component of ecosystem restoration. Sustainable forest management, combating deforestation and supporting forest restoration are essential building blocks of several Sustainable Development Goals, including towards biodiversity conservation, combating climate change, ensuring healthy lives, promoting sustainable economic growth and decent work. Forests capture, sequester and store carbon as they grow and sustainable wood-based products which store carbon in the long term, can replace non-renewable products whose manufacture can be highly emissive in GHGs.

While there is increasing awareness of the critical importance of forests in achieving 2030 ambitions, transformational changes are required in the investment community, governments and forest stakeholders, including small and large-scale enterprises, if forests are to deliver on their economic, social and environmental potential. For now, investments in forests are lacking. According to a 2021 UNEP study, the investments in Nature-based Solutions (NbS)[1], including forests, need to at least triple by 2030 and quadruple by 2050 to achieve the global climate change, biodiversity and land degradation neutrality targets. By 2050, forest-based solutions alone will require total annual expenditure of USD 203 billion globally (UNEP, 2021). Recent global commitments, including the Glasgow Leaders' Declaration on Forests and Land Use, are promising with pledges of US$ USD7.2 billion in private investments and US$ USD12 billion in public funding. But still far from the amounts required.

Sustainable finance is a key ally to increase financing and investments for forests. It is critical to operate on the two sides of the same coin: 'greening finance' (aiming at greening the financial system through taxonomies, disclosure requirements and Environmental, Social and Governance (ESG) standards, among other drivers) and 'financing green' (aiming at redirecting financial flows to green projects) to ensure that a holistic approach is adopted in forest finance, not only through a screening-out and do-no harm lense but also from a screening-in and pro-nature angle.

The Investment Forum will explore relevant business models and the role that key stakeholders should play to enhance resource mobilization and financing for forests globally. Innovative models of blended finance and integrating the value of forest ecosystem services will be discussed. It will highlight the essential role of the private forest sector to promote the development of viable forest-based industries to support ecosystem restoration and sustainable forest management, both at operational and financial levels. Members of key initiatives boosting the adoption of good practices and knowledge sharing between private forest sector stakeholders (such as the WBCSD[2] Forest Solutions Group and the New Generation Plantation Platform) and representatives of financial institutions (such as GCF, GEF, KfW and World Bank among others) will provide key insights on ways to transform our approach to finance investments in forests and their associated products and services.

[1] NbS are defined as "Actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human wellbeing and biodiversity benefits" (IUCN Global Standard for NbS)

[2] World Business Council For Sustainable Development

1. Investment in forests: An opportunity for transformation

The potential of forests for a paradigm shift

2020 – 2030 has been labelled the Decade of Action and there is much work to be done if the world is going to reach the ambitions of the 2030 Agenda for Sustainable Development. The UN Decade on Ecosystem Restoration 2021-2030 (see box 1) is a key building block of this agenda, which requires increased levels of commitments and related means of implementation.

Box 1: About the UN Decade on Ecosystem Restoration

"The UN Decade on Ecosystem Restoration (running from 2021 through 2030) is a rallying call for the protection and revival of ecosystems all around the world, for the benefit of people and nature. It aims to halt the degradation of ecosystems, and restore them to achieve global goals. Only with healthy ecosystems can we enhance people's livelihoods, counteract climate change, and stop the collapse of biodiversity. The United Nations General Assembly has proclaimed the UN Decade following a proposal for action by over 70 countries from all latitudes. Led by the United Nations Environment Programme and the Food and Agriculture Organization of the United Nations, The UN Decade is building a strong, broad-based global movement to ramp up restoration and put the world on track for a sustainable future. That will include building political momentum for restoration as well as thousands of initiatives on the ground." (UNDER website https://www.decadeonrestoration.org/)

Forests are recognized as a central pillar to achieve these ambitions as they deliver multiple ecosystem services. Sustainable forest management can contribute to the achievement of several Sustainable Development Goals, including through biodiversity conservation, water security, soil sustainability, ensuring healthy lives, promoting sustainable economic growth and decent work as well as combatting climate change. In particular, forests represent a strong potential for a circular bioeconomy in the context of the transition to a low carbon economy. The forest sector lies at the heart of this transition to a low-carbon, circular bioeconomy due to the ability of forests and forest products to capture and store carbon. Figure 1 highlights the important role played by forests as natural climate solutions. When sourced responsibly, forest products are renewable, and they can be recycled several times. They can effectively substitute and complement fossil-based materials in sectors such as packaging, construction materials, textiles, bioenergy, pharmaceuticals and even vehicle components (WBCSD, 2021). Indeed, forests sequester, capture and store carbon as they grow and sustainable wood-based products can replace high-emissions, non-renewable products such as concrete, steel or synthetic fibres. As such, replacing conventional building materials with mass timber from sustainably managed forests could reduce emissions from the construction industry by 69 %.[3] In this context the role of ecosystem restoration including forest-based solutions is critical to enable a bioeconomy that builds on the secured provision of raw material (incl. wood products) and ecosystem services (fig. 2).

[3] Himes, Austin. (2020). Wood buildings as a climate solution. Developments in the Built Environment. 4. 10.1016/j.dibe.2020.100030.

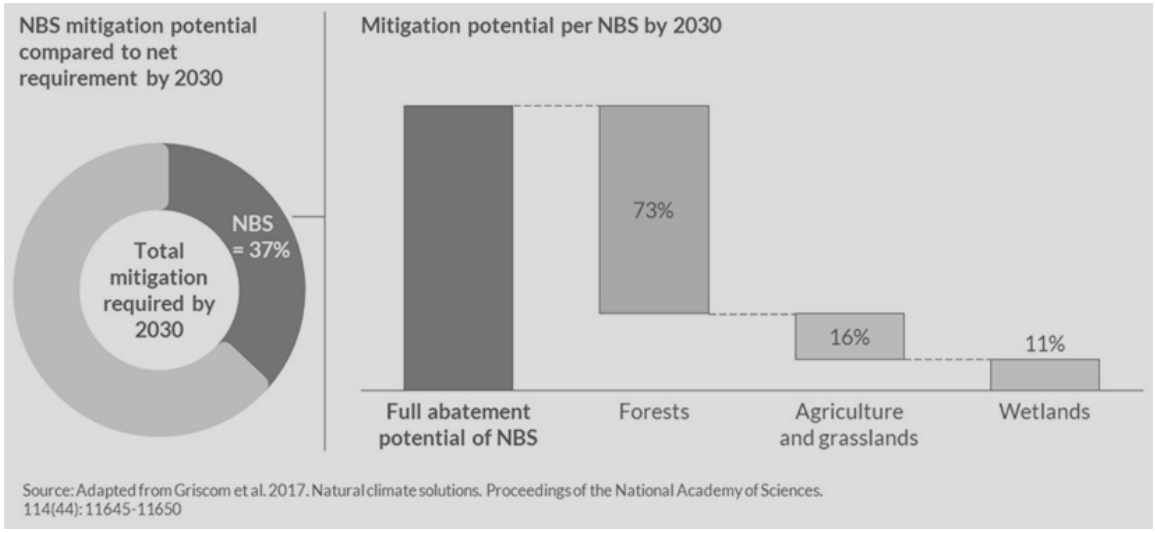

Figure 1: NBS mitigation potential - Adapted from WRI & Griscom

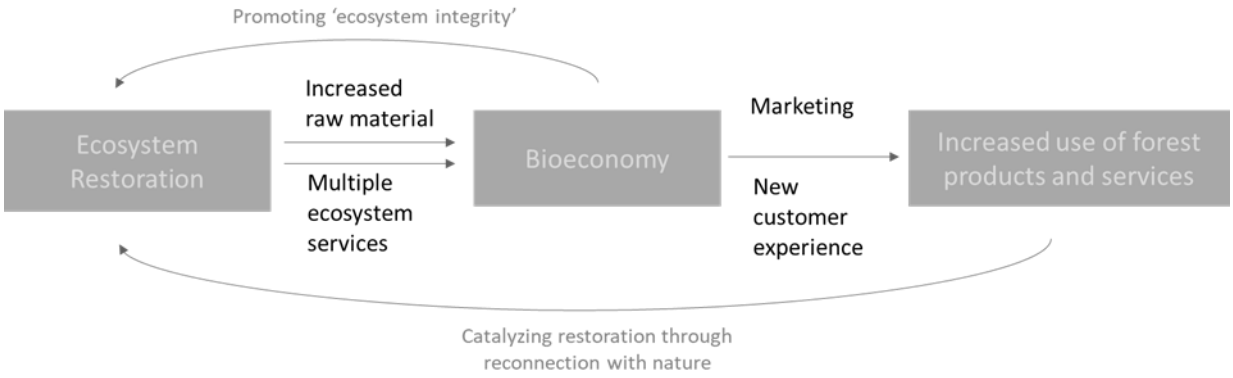

Figure 2: Interconnection between ecosystem restoration and bioeconomy (FAO, 2021)

The need to transform forest investments

While an increasing number of investors and governments are realizing the importance of forests in achieving the 2030 ambition, transformational change is required in the investment community, governments and forest stakeholders, including small and large-scale enterprises and associations, if forests are to deliver on their economic, social and environmental potential.

According to a 2021 UNEP study, to achieve the world's climate change, biodiversity and land degradation neutrality targets, investments in Nature-based Solutions (NbS), including forests, need to at least triple by 2030 and quadruple by 2050.[4] This will require a significant increase in the amount of private finance directed to nature-based solutions.

[4] United Nations Environment Programme (2021). State of Finance for Nature 2021. Nairobi.

Current investments in NbS amount to USD 133 billion per year – 86% of which comes from public sources (UNEP & al., 2021). By 2050, forest-based solutions[5] alone will require total annual expenditure of USD 203 billion globally. Half of the estimated financing needs are for the management, preservation and restoration of forest assets, and it is assessed that the cost of establishing new forests[6] is the most important component of annual investment needs as it accounts for 80% of total costs (UNEP & al., 2021).

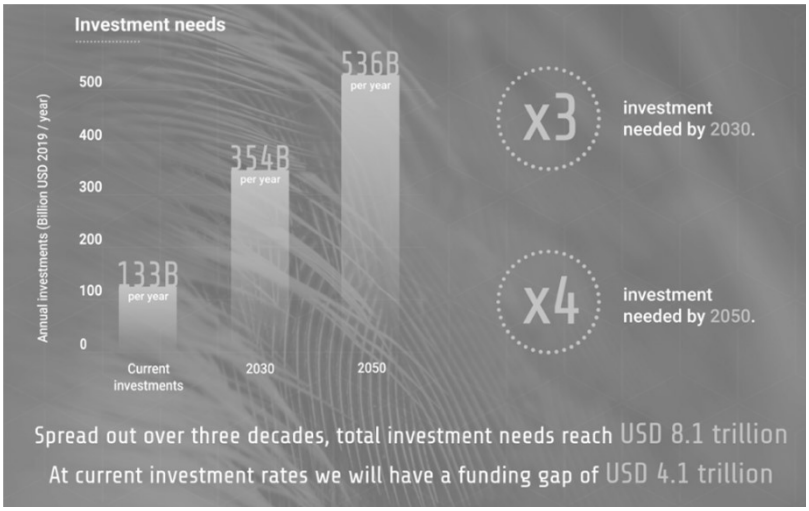

Figure 3: Financing needs for NbS - estimation by UNEP & al., 2021

Importance of public and private sector investment

As highlighted by Singer (2016), sustainable financing for forests relies on a relevant mix of domestic and international public and private sources (fig. 4).

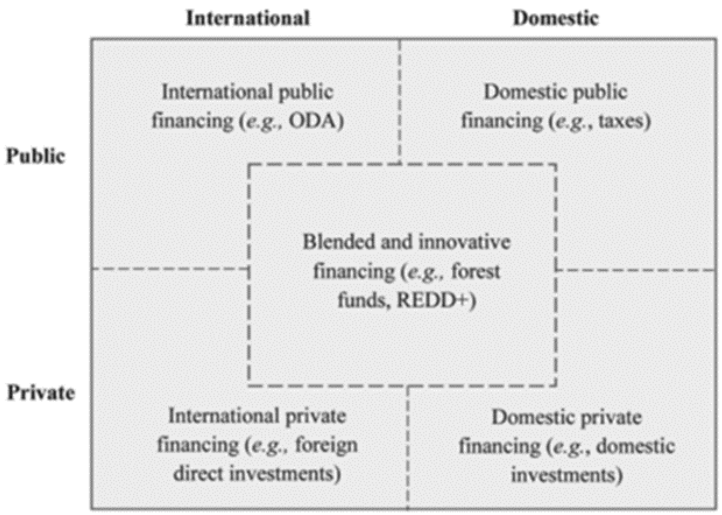

Figure 4: Diversity of forest finance sources (Singer, 2016)

The public sector plays a fundamental role in creating opportunities and demand for investments in NbS including forests. First, the public sector can bring forward policies and regulations that contribute to a stable revenue stream for NbS activities and assets. Governments and public international organizations can also contribute to creating an enabling environment for project development and for scaling up. The opportunity for NbS to become a formal cross-cutting modality of investment is clear, benefiting from a formalized strategic plan and associated resource allocation. Today investments in NbS are largely dominated by public investment, with the private sector accounting for only 18% of total investments (UNEP & al., 2021).

[5] Refers to NbS focusing on forest ecosystems, and includes sustainable forest management, afforestation, reforestation, forest conservation and restoration activities.
[6] Afforestation, reforestation, forest restoration and rehabilitation

Yet the opportunities are significant for the private sector. According to a 2020 Vivideconomics estimate, forest-based solutions could generate US$800 billion in annual revenues by 2050. NbS pose an opportunity for private sector investment in pursuit of sources of returns, to reap the benefits of increased resilience, to reduce costs and to enhance reputation and purpose. In this sense, figure 5 provides some of the key rationale for private sector engagement in ecosystem restoration.

As businesses become more sophisticated in their understanding of NbS opportunities, there will be a role for financial de-risking products such as guarantees and insurance, to create attractive risk-return profiles for large, mainstream investors.

In this context, several initiatives are being set up. UNFCCC COP 26 provided a platform for the announcement of the Glasgow Leaders' Declaration on Forests and Land Use. The declaration pledges USD 7.2 billion of private investments and a further USD 12 billion of public funding.[7] Other initiatives promoting the mobilization of forest financing were launched at Glasgow such as the Forest Investor Club, a network of public and private financial institutions and other investors, that aims to promote sustainable investment in the land sector.

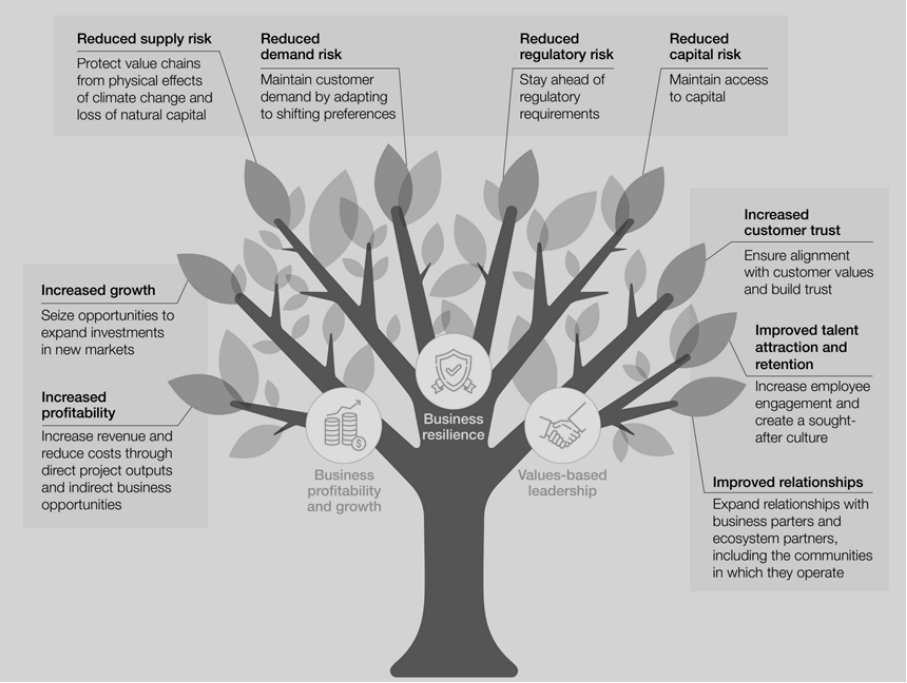

Figure 5: Rationale for private sector engagement in ecosystem restoration (WEF, 2021)

2. More than wood and money: What can trigger more investments in forests?

Importance of ecosystem services beyond forest products

For a long time, the world's forests have delivered a range of forest products for a variety of end uses – construction materials, furniture, paper and tissue products among others. The demand for these products has driven long-term interest and investment across the globe in forests at various scales for a range of forest types. Demand for both traditional and emerging forest products is still increasing as a result of population growth, increasing per capita consumption, urbanisation and the development of a forest-based bioeconomy. To meet that demand, the commercial forest area will likely need to both increase in productivity and expand into new areas.

While forests are lauded for the broad range of products and benefits that they can deliver, it is recognised that it is difficult to establish new forests on greenfield sites for commercial benefit. It is critical to better understand what triggers investors' interest to engage in NbS and forest projects.

[7] Through the Global Forest Finance Pledge, the European Union and 11 countries have committed to provide USD 12 billion for forest-related climate finance by 2025.

Some business models related to NbS are in a strong position to scale up with the help of institutional investors. In some of these business models, ecosystem services (beyond forest products) play a critical role as they represent alternative sources of revenues. Carbon finance is a good example of such models (box 2).
Other ecosystem services beyond carbon could also be valorized and form part of an investor rationale. The Millennium Ecosystem Assessment[8] (MA) identifies four broad categories of ecosystem services: provisioning services, regulating services, cultural services and supporting services[9]. Proença and Pereira (2015) defined these categories as follows:

- Provisioning services correspond to the goods directly obtained from ecosystems, as timber, edible products as mushrooms and berries, heating wood, etc.
- Regulating services are the indirect benefits obtained from the regulation of ecological processes. Examples of these are climate regulation, soil protection from erosion, watersheds regulation, etc.
- Cultural services are nonmaterial benefits obtained from ecosystems, including religious beliefs.
- Supporting services provide the basis for the production of all the other ecosystem services, and include services such as oxygen production by photosynthesis, carbon sequestration, nutrient cycling, and habitat provisioning.

We need to include into investment approaches as far as possible quantification and valuation of the services that ecosystems provide. Some of these ecosystem services are very difficult to value, in quantitative or qualitative terms, but more efforts in that sense will lead to new sources of incomes for forest project developers and investors. Examples of plantations in the US mobilizing revenues from water utilities recognizing the critical role played by trees for water provisioning and purification is a positive sign.

Aggregation for scale

Private sector actors could also identify opportunities to aggregate projects to access larger scale sources of capital. Most investments in NbS are relatively small and have a high level of risk. However, once properly aggregated, diversified and packaged, they may have a risk return profile well suited to mainstream investors. The private sector can play a role in aggregating and packaging projects and structuring finance. An example is Ecosystems Investment Partners[10], an investment group specialising in mitigation banking and biodiversity offsets. The company buys, restores, and conserves priority properties (such as wetlands, streams, and habitat mitigation and restoration projects), and then sells the credits generated.

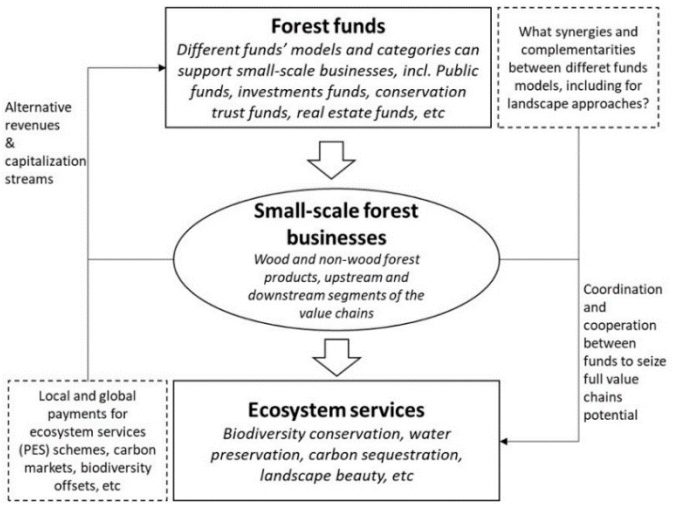

Figure 6: Role of forest funds for aggregation of small-scale forest business and the valorization of ecosystem services

Forest funds can also play a key aggregator role, through investments in portfolio of small and medium size forest companies, like the Forest and Climate Change Fund of Luxembourg for example (Box 3). Funds can also be instrumental in mobilizing revenues from the valorization of ecosystem services, thus complementing returns from wood and non-wood forest value chains (fig. 6).

[8] https://millenniumassessment.org/en/Framework.html
[9] https://ec.europa.eu/environment/nature/biodiversity/economics/pdf/valuing_ecosystems.pdf
[10] https://ecosystempartners.com/

Box 3: Forest and Climate Change Fund (FCCF), Luxembourg. The FCCF is capitalized through a mix of public and private resources. The Luxembourg government as well as Luxembourgish banks such as BIL and Spuerkess have provided seed capital in the framework of their Corporate Social Responsibility (CSR) strategy. Currently the average ticket per investment is USD 1,275,000. FCCF has a target size of USD 15 Million while 7.3 Million USD have already been invested in the last 5 years. FCCF has different ways to do its investments: i) Equity: direct investments in new entities but without being the owner of the majority of the shares, ii) Loans: for working capital and industrial equipment and machineries. The Fund has businesses operating at various stages of the value chain with differing underlying business models. Those at the earlier stages of the value chain generate revenue through timber, and the Fund hopes to improve revenue streams through the implementation of sustainable and efficient forestry management practices. Other businesses focus on wood transformation and treatment, either into higher end or lower end products. Given that the Fund works with businesses across the value chain, the Fund sees symbiotic relationships being built between the various businesses working at different ends of the value chain.

3. Screening in: Advancing people-centred, pro-nature, pro-biodiversity profitable & inclusive forest projects – Lessons learned from New Generation Plantations

The NGP approach

New Generation Plantations (NGP) support sustainable forest plantations in line with the principles of: (i) maintaining ecosystem integrity, (ii) protecting and enhancing high conservation values, (iii) development through effective stakeholder involvement processes, and (iv) contributing to economic growth and employment.

NGP has observed that the current funding approaches engaging in forest landscape are either i)commercially focused -where resource availability to solve landscape challenges beyond their operational scope is limited _ or ii)philanthropic, where the social and/or environmental challenges are addressed. But in the latter, in some cases, the traditional donor model can be short-term and tends to generate donor dependency, lacking the elements required for long-term sustainability.

For integrated forest landscapes and the people who depend on them, to become truly resilient and sustainable over the long-term, a different approach to financing is required. The NGP investment approach looks to define the funding needs, promoting project development in a new model that looks to create long-term sustainable impacts in line with ecosystems, people, and economy.

The NGP approach streamlines the offerings to investors, by putting a common framework around the various projects, providing clarity in what to look for and how to develop new projects entering the portfolio. This will communicate the landscape approach that each project is taking, where the focus is on the delivery of multiple impact returns to investors.

NGP case studies

One case of applying the NGP approach exists in Bahia, Brazil, where an indigenous community is looking to reclaim their ancestral lands and restore the trees and plants that have provided food, materials and medicines for generations. Here the organization CICLOS, is working with FASB (Southern Bahia People and Nature Fund), which aims to restore 1,500 hectares of native Atlantic rainforest and create another 1,500 hectares of sustainable agriculture and forestry, supporting conservation and regional socioeconomic development. Local landowners, SMEs and organizations can apply for small grants to develop their ideas, or larger grants for projects ready to

progress with the next phase of implementation. CICLOS is working with the Indigenous Pataxó people to restore and connect fragments of native forest while supporting the production of traditional wooden handicrafts.

In Viet Nam, where WWF has been working in the Central Annamites Landscape for over 10 years, the Forest Owners Sustainable Development Association of Thua Thien Hue province (FASDA-TTH), represents the plantation smallholders who are managing sustainably the FSC-certified forest in the province. Originally comprising the first 14 smallholder groups, the Association established for legalizing the entity of FSC smallholder group structure is currently transforming the plantations intended for woodchips production (4-5 years rotation) to be grown for larger timber suitable for sawnwood (10-12 years rotation) and continuing to expand the FSC forest area. FOSDA-TTH has now 1,100 members in 37 associations and 6 districts with an area of 6,000 ha of FSC certified acacia plantations operating in 25 forestry cooperatives, and through access to innovative sustainable financing resources the Association has the ambition to double the FSC certified area by 2025.

4. The forest sector & ecosystem restoration

Why engagement with the private forest sector in ecosystem restoration is important

Opportunities for forest restoration are strong. According to a 2011 World Resources Institute (WRI) study developed in the context of the Global Partnership for Forest and Landscape Restoration (GPFLR), 2 billion hectares[11] are suitable for forest restoration and tree regeneration, an area larger than the entire continent of South America. In this context, several international initiatives have emerged in the last ten years, such as the Bonn Challenge (targeting the restoration of 350 million hectares globally by 2030), or AFR100, 20x20 initiative and ECCA30 at regional scales. In 2021 the United Nations Decade on Ecosystem Restoration was launched.

Private actors, including the private forest sector, could make crucial contributions to ecosystem restoration. Forest-based industries have a key role to play in ecosystem restoration as they manage a significant proportion of global forest areas. Production forests, primarily managed to produce wood and non-wood forest products, represent around 30% of the forested area globally.[12] The involvement of forest companies in the conservation and restoration of forest ecosystems can have a positive impact on biodiversity and forest health, and therefore on the sustainability of the companies' own raw materials sourcing and commercial activities along the value chain. Indeed, ecosystem restoration can be perceived as one of the pillars for securing long-term benefits for forest-based industries, alongside a strong business rationale and sustainability goals. This role is all the more critical with the emergence of a circular bioeconomy and increased attention to climate-smart forest products. Box 4 provides an example of a forest company contribution to wetland restoration that support water provision of its own plantations.

[11] https://www.wri.org/data/atlas-forest-and-landscape-restoration-opportunities

[12] FAO. 2020. Global Forest Resources Assessment http://www.fao.org/forest-resources-assessment/2020/en/

Box 4: Forest company led Water Stewardship Programme in South Africa (derived from ACSFI, 2021). In order to address the water stress issue, in 2013 a South African forest company partnered with WWF to develop the Water Stewardship programme. which promotes the landscape approach to water stewardship. Instead of looking at a specific piece of land in isolation, the landscape approach promotes working with all adjacent land users at a landscape scale. As a pioneer forestry company to work on rehabilitating degraded wetlands, it encouraged others in various sectors to do the same and what started out as wetlands management in the company's forestry plantations has been extended to include the agricultural sector and other plantation forestry growers. The program brings together key stakeholders who have a shared interest in maintaining freshwater ecosystems and services at the water catchment level, including farmers, local municipalities and government, environmentalists, value chain businesses and industry bodies in the forest, dairy, sugar and citrus sectors. As wetlands support economic activities and can deliver many ecosystem services, it is a win-win to engage in such as restoration program. Beyond the wetland ecosystem services secured for the forest company's operations, the wetland restoration program also served social purposes, by enabling a parallel government-led initiative 'Working for Wetlands' that alleviated poverty by providing jobs to previously unemployed people.

In addition, given the importance of the private forest sector in terms of socio-economic development through key value chains, including wood and non-wood forest products, and the creation of green jobs (the forest-based industries create 13 million formal and 41 informal jobs globally[13]), forest-based companies' engagement in ecosystem conservation/restoration will be important to ensure restoration efforts also achieve desired socio-economics impacts and multiple SDGs.

Business rationale for private forest sector engagement in ecosystem restoration

Pragmatically, the main reasons for private forest sector engagement in ecosystem restoration matches with an investor rationale around maximizing returns and minimizing risks (Fig. 7).

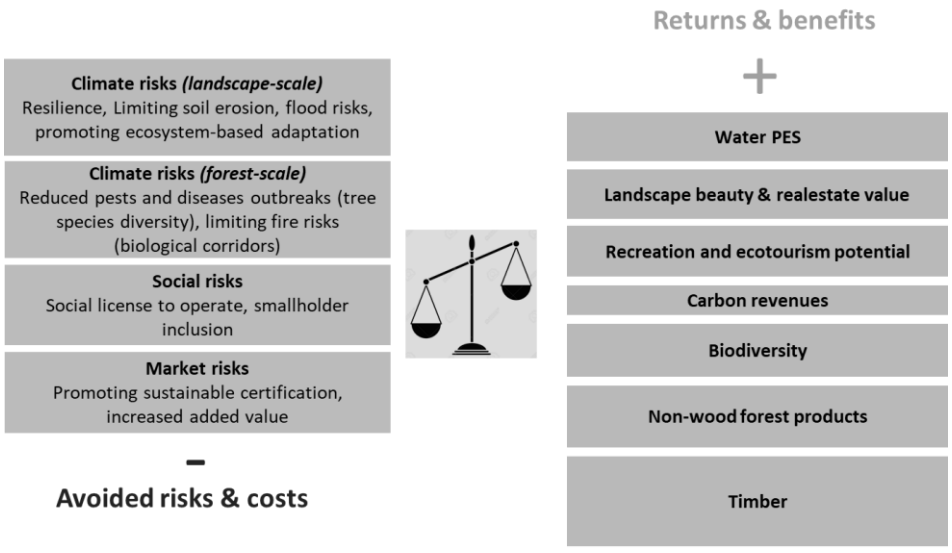

Figure 7: Engagement of forest-based industries in ecosystem restoration: a risks-returns rationale (ACSFI, 2021)

Drivers underlying forest-based industries engagement in ecosystem restoration form a virtuous circle (fig. 8), in particular through:

[13] https://www.fao.org/rural-employment/agricultural-sub-sectors/forestry/en/

- Increased available biomass and forest products;
- Improved market access and products value, including through recognized certification schemes;
- Risk mitigation measures and avoided costs;
- Diversified revenue streams;
- Commitments to sustainability in value chains and CSR engagement; and
- Sustainable finance mobilization, for example through green bonds issuance.

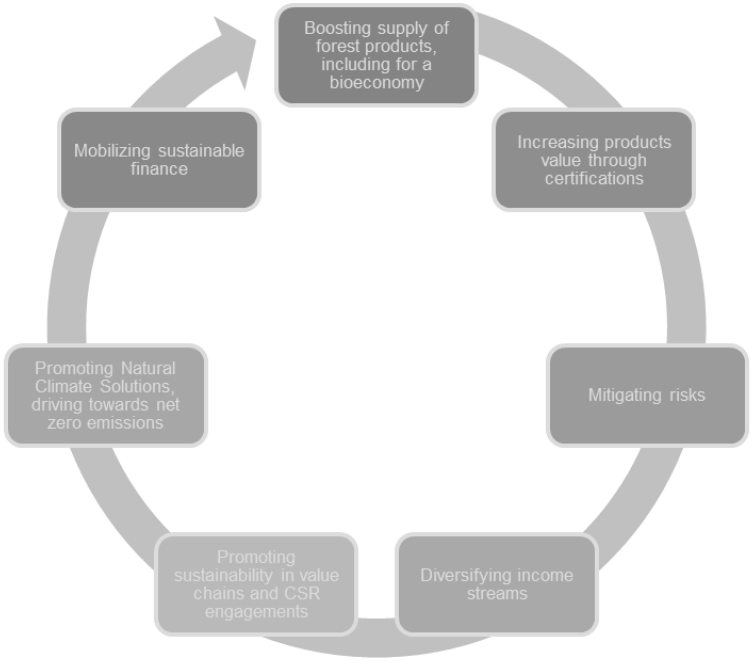

Figure 8: Virtuous circle of ecosystem restoration for forest-based industries (ACSFI, 2021)

Opportunity for increased engagement of forest-based industries in ecosystem restoration

Forest-based industries can play a significant role in promoting and implementing forest ecosystems restoration. The United Nations Decade on Ecosystem Restoration could be a perfect opportunity to be seized by forest-based companies to participate in ecosystem restoration. The members of the WBCSD Forest Solutions Group (FSG) have released a statement[14] of support for the UN Decade of ecosystems restoration that promotes three pillars of action that FSG members are addressing: 1) Scaling up an inclusive low carbon circular bioeconomy within planetary boundaries; 2) Implementing sustainable forest management practices to conserve and restore ecosystems in production forests; 3) Supporting and investing in reforestation and afforestation efforts.

In the current context, some private forest sector companies already contribute to ecosystem restoration and are active both operationally (for example through mosaic restoration approaches) and financially (e.g. through green bonds, impact funds/blended finance, payments for ecosystem services/carbon finance). However, private forest sector companies do not always appear visible in global and regional restoration initiatives (very few forest companies are formal members and partners of regional and global restoration initiatives) which may limit the opportunities for further upscaling of their actions, good practices and impact in cooperation with other stakeholders.

And some forest-based companies do not seem to have (yet) enough knowledge and technical expertise on the topic. There is thus a need to develop capacities and to support the less engaged firms, by sharing the examples of the leading companies in the matter. New initiatives are very much needed to enable sharing of lessons learned and good practices among private sector stakeholders, as well as to boost already engaged forest-based industries to innovate and upscale their positive impact, including through increased access to funding and public private partnerships approaches.

[14] https://www.wbcsd.org/download/file/12253

5. Transforming, growing and restoring: What support will it take?

Partnerships needed

The need for increased efforts to finance forests also takes place in a context of global demand for forest and wood products that continues to grow steadily in line with economic growth and patterns of consumption (Nepal, 2021). Consequently, the demand for sustainably sourced forest and wood products as a proportion of total global demand may also continue to grow as ESG requirements and sustainability standards are mainstreamed.

But to boost provision of sustainable wood products and to enable relevant forest-based solutions, trees need to be managed and planted in the right place, for the right reason, for the right market. Such challenges require sound partnerships between various stakeholders and investors. Successful investments in forest-related initiatives, including in natural forests, plantations and restoration, can only happen with supportive enabling conditions based on the right scientific advice as well as accurate data and information sources. Support and the relevant enabling conditions for forest-based projects comes from a wide range of actors including governments, development agencies, regulators, certification agencies, the private sector and researchers. If we are to increase the forest sector's impact, support mechanisms may need to evolve from what has been available previously. Multi-stakeholders partnerships will be critical to this end. Several examples of such partnerships already exist or are currently being developed such as the EverGreening Global Alliance[15]. Figure 9 presents some of the key forestry investment stakeholders required to support inclusive supply chains and mobilize financing at scale (FAO, 2018).

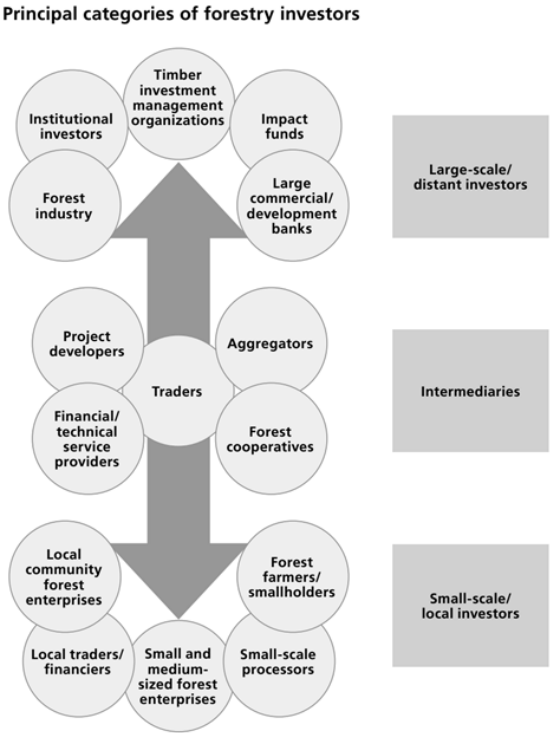

Figure 9: Financial partnerships for the forest sector (Matta, 2018)

Supply and demand-side measures to ensure relevant safeguards are in place

The role of demand-side measures, such as voluntary certification standards, in supporting private investment in sustainable forestry and forest products is well established. How can such standards, at international and national levels, further enhance the effectiveness and efficiency of private investment in these markets? Voluntary tools are being developed to promote the identification of good and sustainable forestry practices and to enable their implementation, including certification programs. The use of the two main sustainable forest certification systems, Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC) has grown rapidly over the past 25 years. In 2021, the volume of wood harvested from certified forests was estimated at 38% of the global roundwood production.[16] There is thus still a need to accelerate adoption by a larger number of forest growers and to understand the reasons why not more private forest sector stakeholders are using these standards.

Supply-side measures, such as Voluntary Partnership Agreements (VPAs) under EU-FLEGT, have a role ensuring legality private investment in sustainable forestry and forest products. How governments in both producer and

[15] https://www.evergreening.org

[16] https://www.un.org/esa/forests/wp-content/uploads/2021/04/Global-Forest-Goals-Report-2021.pdf

consumer countries can provide investors with clarity on the policies, systems and standards under development remains a key question.

Nature based accounting and investment disclosures

The Paris Agreement, progress on Article 6 at COP26, and recent developments in voluntary carbon markets, should transform the medium-term prospects for investment in forest-related environmental/ecosystem services. Consequently, the potential supply of private investment in sustainable forest-based industries, forest product value chains and environmental services (including carbon offsets) has never been higher, but in order to realise this potential, particularly in emerging and frontier markets, investors require confidence in the data and information relevant to ESG metrics (OECD, 2020).

To help companies and financial institutions assess and manage the impact of their activities on nature (including forest) and following the success of the Task Force on Climate-related Financial Disclosure (TCFD), the Task Force on Nature-Related Financial Disclosures (TNFD) was launched in 2021. TNFD's framework final version should be available by late 2023 and could make a difference if correctly adopted by companies and financial institutions.

Moreover, international companies and investors initiatives such as the UN Principles for Responsible Investors[17] and the Carbon Disclosure Project for Forests[18] provide guidelines, tools and promote knowledge sharing to help private actors identify risks and opportunities related to sustainable forest management issues.

In addition, regulatory mechanisms at the initiative of decision-makers are multiplying. This is the case, for example, of the growing development of taxonomies by governments, which are opportunities for channeling more investments towards nature-based solutions projects, including for forests.

Furthermore, sharing knowledge and raising awareness on forest ecosystems services are essential. In this regard, initiatives like the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the Economics of Ecosystems and Biodiversity (TEEB) and the Economics of Ecosystem Restoration (TEER)[19] are essential.

6. 'Greening finance' and 'financing green': what the financial sector can do to increase financial flows for forests

Key definitions

Investors worldwide are increasingly interested in sustainable and green finance. Sustainable finance can be defined as a concept which "refers to the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects"[20] (European Commission, 2020). Green finance can be considered as a subset of sustainable finance that focuses on environmental considerations. Sustainable and green finance include two complementary components (fig 10):

[17] https://www.unpri.org/
[18] https://www.cdp.net/en/forests
[19] https://www.fao.org/in-action/forest-landscape-restoration-mechanism/resources/detail/es/c/1315041/
[20] Overview of sustainable finance. (March 2020). European Commission. https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance_en

- ‘Greening finance’ calls for screening out of unsustainable activities and projects and integrating ESG risks into investment processes, including risks and negative impacts that investment projects may have on natural ecosystems such as forests.
- ‘Financing green’ requires investing more pro-actively in sustainable activities, including nature-based solutions projects, such as forest-based solutions.

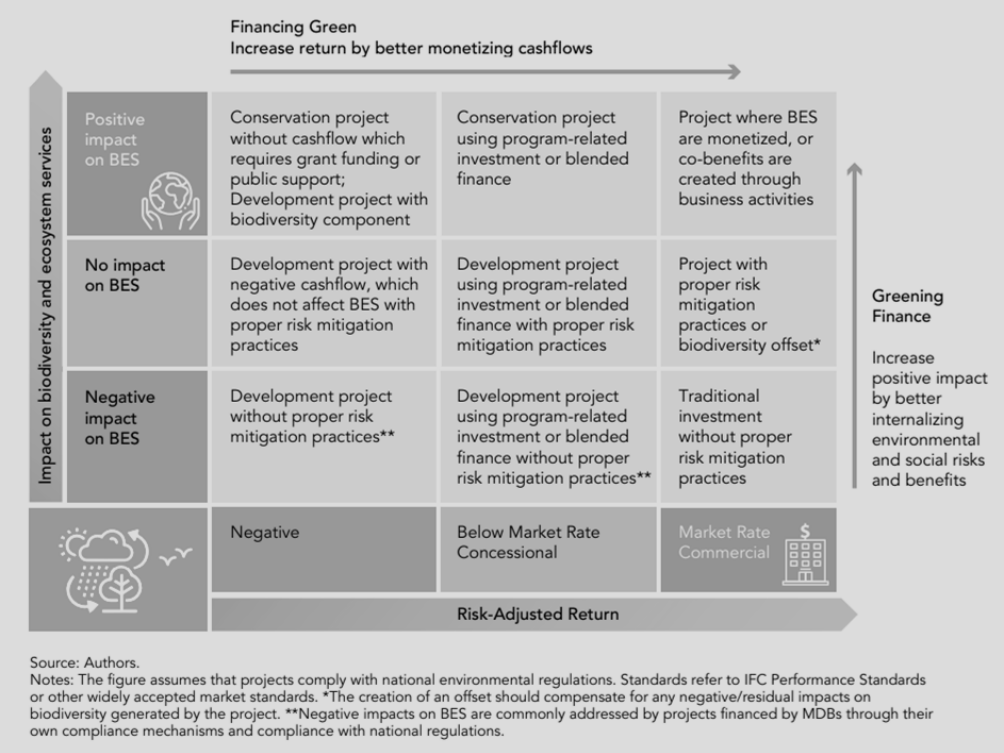

Figure 10 : Financing green and greening finance: two sides of the same coin (World Bank, 2020)

Greening finance

The financial sector's interest in greening finance is becoming increasingly significant as environmental and climate issues materialise into financial risks for financial institutions. The issue of the impact of finance and investment on forests is becoming increasingly important, particularly in relation to deforestation. Indeed, not only can financing deforestation practices represent a strong reputational risk for financial institutions, but they can also constitute a legal risk as climate and environmental regulations continue to grow.[21] Climate related finance impacts are also critical risks for forests. As a matter of fact, climate-induced catastrophes will negatively impact the forest assets which generate returns on investment.

As such, financial regulators, policy makers and supervisory authorities have an important role to play in promoting the greening of the financial system. For example, this is the purpose of the development of taxonomies - a sectoral classification system that distinguishes between sustainable and non-sustainable activities – around the world. As such, the European taxonomy foresees to list activities that have a positive impact on the protection and restoration of biodiversity and ecosystems, including forests. Other regulators’ initiatives include the The Network of Central Banks and Supervisors for Greening the Financial System (NGFS) whose role is to contribute to the management of environmental and climate risks in the financial sector and to promote the financing of a sustainable economy, in particular by sharing best practices[22].

Initiatives are also being put in place at the investor level. As such, the UN Principles for Responsible Investments (UN PRI) *Sustainable Commodities Practitioners group,* aims to “support signatories to address deforestation as a

[21] https://www.unpri.org/sustainability-issues/environmental-social-and-governance-issues/environmental-issues/sustainable-land-use
[22] https://www.ngfs.net/en

systemic risk, share their practices and begin to align their asks, metrics, and practices in collaboration with technical experts"[23].

Furthermore, at COP 26 in Glasgow, 30 financial institutions representing USD 8.7 trillion in assets, committed to use best efforts to eliminate agricultural commodity-driven deforestation in their portfolios by 2025[24], and proposed a timeline to achieve this goal.

Financing green

Green finance sources have been growing fast, for example with the significant growth of the green bonds market. Indeed, between 2014 and 2020, the total market value of green bonds issued increased by 700% and ballooned into a USD 300 billion market.[25] However, the land use sector, including forests, only represents a small part of the green bonds market which remains largely dominated by the energy, transport and building sectors. LGX and GLF (2020) assessed that about 3% of green bonds proceeds are used for sustainable land use and biodiversity projects. It is thus very critical to increase the amounts of green finance instruments flowing to forest-based solutions. International climate funds such as the Green Climate Fund (GCF), the Global Environmental Facility (GEF) and the Adaptation Fund are some of the key instruments that could help catalyze the required investment models to increase resources for forests, including through the mobilization of private investors.

Figure 11: Overview of incentives for promoting sustainable forest management (Dieterle & Karsenty, 2020)

Governments also have a critical role to play through fiscal and non-fiscal incentives. A diversity of incentives can be relevant to boost adoption of good practices for sustainable forest management and supply chains (fig. 11). Fiscal incentives encompass for example differentiated tax rates with tax rebates for sustainable practices, and bonus-malus systems. ITTO (2021) outlined a range of potential non-tax incentives, including: i) the inclusion of sustainability criteria in tendering processes for forest harvesting contracts, ii) public timber procurement policies that could favour certified legal or certified sustainable timber; and iii) for export products, prioritization in customs procedures of certified timber to reduce loading times.

7. Accelerating forest investment projects

In order to support the development of a pipeline of forest projects, several project preparation and technical assistance facilities have been designed. These programs which aim to optimize project developers access to forest funding sources, are even more relevant for smallholders' organizations and small and medium sized enterprises which can have difficulties to access finance opportunities, especially in low-income countries. Indeed, these actors face disadvantages which can limit their access to finance such as the limited scale of their operation, the

[23] UN PRI. *Terms of Reference – PRI Sustainable Commodities Practitioners' Group.* https://dwtyzx6upklss.cloudfront.net/Uploads/l/r/o/tor_sc_practitioners_group_644584.pdf

[24]

[25] UNCTAD. 2021. *World Investment Report 2021.* https://unctad.org/webflyer/world-investment-report-2021

weak organizational structures and management capacities or the lack of understanding of certain criteria needed to attract investments.[26]

Incubation and projects maturation

Several business incubators and acceleration services have emerged to help entrepreneurs and SMEs develop bankable and relevant business plans in the forestry sector. Among them: (i) the Land Accelerator[27] is a World Resources Institute (WRI) initiative which supports entrepreneurs who act for forest and farmland restoration. So far, 191 entrepreneurs from 46 countries have benefitted from the program; and (ii) The Restoration Factory[28] is an e-learning program developed by UNEP, FAO and IUCN and launched in 2021. Its aim is to support entrepreneurs in the development of business models for ecosystem restoration.

In addition, several guidance documents have been developed in recent years. These include the "Forest business incubation: Towards sustainable forest and farm producer organisation (FFPO) businesses that ensure climate resilient landscapes", an FAO and IIED publication, and the "Developing bankable business plans," FAO-published guidelines, which aim to improve the capacity of small producers and SMEs to access private finance for sustainable forest-based businesses.

Furthermore, several project preparation facilities (PPF) and technical assistance facilities (TAF) have been developed in the forestry sector. Some of them are directly attached to funds. These facilities include the Afri3Fund Technical Assistance Facility, the &Green Technical Assistance Facility, the Agroforestry Technical Assistance Facility (attached to Moringa Partnership) or the LDN Fund Technical Assistance Facility (operated by IDH). Some others, such as the Nature+Accelerator Fund are open to a broader scope of investors.

Risk mitigation

Reducing perceived risks for private investors is critical to mobilize resources at the scale required. Many de-risking options are available, which could be applied by different types of investors for various project scales. Different value chains stakeholders can play a role in de-risking investments as illustrated by figure 12. A mix of such strategies should be built more systematically in forest investments in order to maximize the risk return ratio.

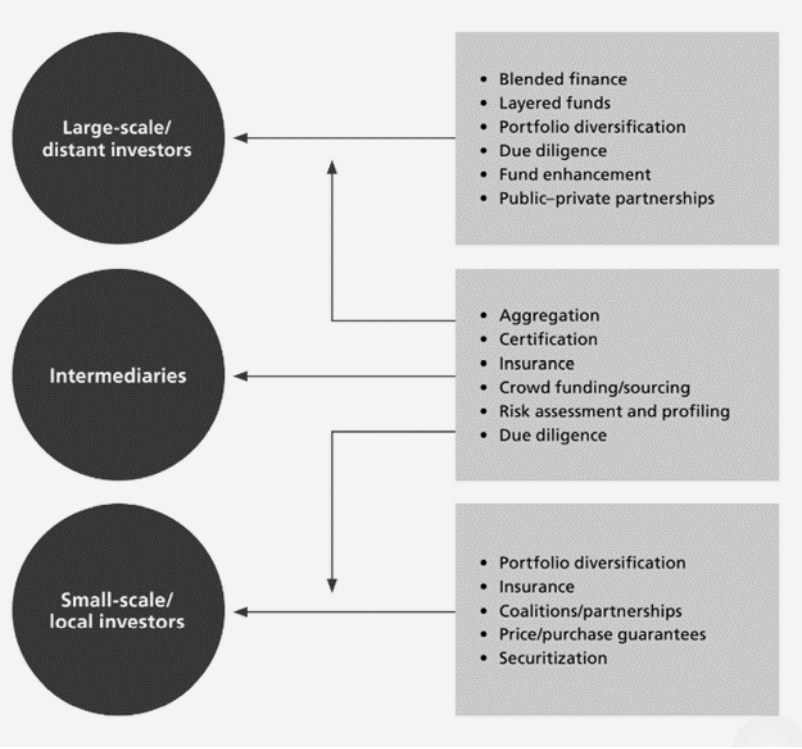

Figure 12: Illustrative risk-mitigation strategies for various finance/value chains stakeholders (Matta, 2018)

[26] Boscolo, M., Lehtonen, P. and Pra, A. 2021. Developing bankable business plans – A learning guide for forest producers and their organizations. Forestry Working Paper No. 24. Rome, FAO. https://doi.org/10.4060/cb4520en

[27] https://www.wri.org/initiatives/land-accelerator

[28] https://programs.bridgeforbillions.org/restoration-factory-program/

Local ownership and stewardship

Boosting local ownership and stewardship is critical for the emergence of relevant business models that deliver development impacts for local communities. With less than 2% of climate finance flows benefitting local groups and small farmers (IFAD, 2021), more efforts should be made to ensure good practices of free, prior informed consent (FPIC) and mutually agreed terms (MAT) are implemented. For example, as illustrated by figure 13 (WWF, 2020), benefit-sharing mechanisms (BSM) in REDD+ projects are still too weakly applied which undermines social sustainability of those investments. Such limitation for a mechanism under international scrutiny is a sign that much more efforts need to be done for more inclusive forest investments.

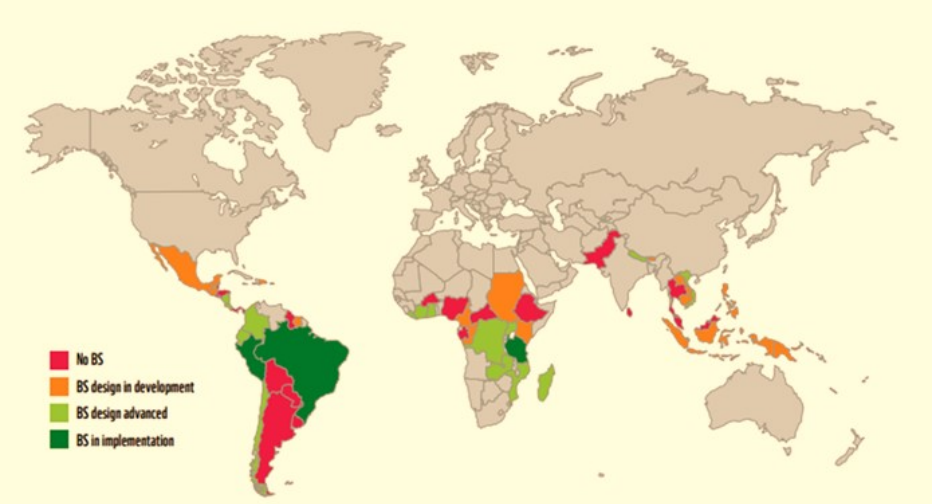

Figure 13: Stage of development of BSM under REDD+ in the 54 countries supported by UN-REDD, FCPF and other initiatives, screened in Natural Strategies/WWF study.

8. The Way Forward: the future of forest investment

Forests, with the wide range of critically important ecosystem services they provide, are key allies in addressing the serious challenges facing humanity today. A paradigm shift is needed to meet the 2030 Sustainable Development Goals and to address the global challenge of climate change, and forests have great potential to support this necessary change.

Sustainable strategic investments in forests are critical to promote transformative changes and inclusive solutions that steer sustainable forest management, forest restoration and conservation, viable forest-based industries and a sustainable timber trade towards a circular bioeconomy. Sustainable business development involving timber and non-timber forest products, as well as a wide range of ecosystem services will enable local communities, Indigenous Peoples and smallholders to improve their livelihoods. The following stakeholders have key roles to play:

- Governments and national agencies can
  - Promote enabling policy and institutional framework conducive for investments in forest projects;
  - Develop regulatory mechanisms and tools to enhance sustainable forest management and investments (e.g. ESG standards, taxonomies, sustainable finance regulations…);
  - Develop regulatory standards that would encourage greater use of wood (e.g., building codes and standards for insurance related to mass timber in large building construction for example).
  - Reorient incentives and subsidies from unsustainable activities towards NbS;
  - Promote international initiatives and commitments for increased forest finance.

- Financial institutions, investors and corporations can
  - Assess and map the risks of their operations for forest ecosystems and sustainable forest management;

- Evaluate their dependence on forest ecosystem services;
- Green their business models and supply chains to promote forest conservation, restoration and combat deforestation and sustainable forest management;
- Engage in net-zero / zero-deforestation industry initiatives and promote the exchange of good practices and lessons learned

- Technical and financial partners (including NGOs, DFIs) can
  - Support capacity building, technical assistance (TA) and dialogue between key stakeholders;
  - Promote access to forest finance for all types of stakeholders, including SMEs and IPLC groups;
  - Develop more PPF and TAFs;
  - Provide de-risking options that include TA, guarantees, and insurance mechanisms
  - Support the development of blended finance models.

- Smallholders and IPLC groups can
  - Raise voices to ensure relevant benefit-sharing and respect of their rights;
  - Connect with forest finance intermediaries, incl. TAFs and PPFs to help them build investable projects;
  - Develop capacities to build projects eligible to forest finance.

References

Boffo, R., and R. Patalano (2020), "ESG Investing: Practices, Progress and Challenges", OECD Paris, www.oecd.org/finance/ESG-Investing-Practices-Progress-and-Challenges.pdf

Boscolo, M., Lehtonen, P. and Pra, A. 2021. Developing bankable business plans – A learning guide for forest producers and their organizations. Forestry Working Paper No. 24. Rome, FAO. https://doi. org/10.4060/cb4520en

Dieterle, G., & Karsenty, A. 2020. "Wood security": the importance of incentives and economic valorisation in conserving and expanding forests. International Forestry Review, 22: 81–92.

EU. 2020. Overview of sustainable finance. European Commission.

FAO. 2020. Global Forest Resources Assessment http://www.fao.org/forest-resources-assessment/2020/en/ United Nations Department of Economic and Social Affairs, United Nations Forum on Forests Secretariat (2021). The Global Forest Goals Report 2021

ACSFI (2021). Unpublished. *Background Paper on Status, Challenges, and Opportunities of Forest-Based Industries Engagement for Ecosystem Restoration* (Business Rationale and Financing Solutions as Drivers for Restoration). Food and Agriculture Organization of the United Nations.

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

FAO-GIZ. 2013. National forest funds (NFFs): Towards a solid architecture and good financial governance. Forestry Financing Working Paper No.16. Rome, Italy, FAO.

FAO.2018. MONEY MATTERS. Strategies for scaling up private investments in forestry. By Rao Matta. Unpublished

Himes, Austin. (2020). Wood buildings as a climate solution. Developments in the Built Environment. 4. 10.1016/j.dibe.2020.100030.

IFAD and CPI (2020). Examining the climate finance gap for small-scale agriculture. https://www.ifad.org/en/web/knowledge/-/publication/examining-the-climate-finance-gap-for-small-scale-agriculture

ITTO (2021). Fiscal and non-fiscal incentives for sustainable forest management Synthesis of the lessons derived from case studies in Brazil, Cambodia, the Congo, Côte d'Ivoire, Myanmar, Peru, Thailand and Viet Nam. Technical series 48.

United Nations Environment Programme (2021). State of Finance for Nature 2021. Nairobi.
FAO and UNEP. 2020. The State of the World's Forests 2020. Forests, biodiversity and people. Rome. DOI: https://doi.org/10.4060/ca8642en /

LGX-GLF (2020). How can Green Bonds catalyse investments in biodiversity and sustainable land-use projects? Chahine, Paul & Liagre, Ludwig

Liagre, L. & al. 2021. How can National Forest Funds catalyse the provision of ecosystem services? Lessons learned from Costa Rica, Vietnam, and Morocco. Ecosystem Services Journal https://www.sciencedirect.com/science/article/abs/pii/S2212041620301704

Liagre, L, Pra. A and Petenella D. 2022. How national forest funds can support small-scale forest businesses to deliver ecosystem services. Austrian Journal of Forest Science https://www.forestscience.at/artikel/2021/04/how-national-forest-funds-can-support-small-scale-forest-busines.html

Proença, V., Pereira, H.M. 2015. Ecosystem Changes, Biodiversity Loss and Human Well-Being. Reference Module in Earth Systems and Environmental Sciences. https://www.sciencedirect.com/science/article/pii/B9780124095489095579

Nepal, P.; Johnston, C.M.T.; Ganguly, I. Effects on Global Forests and Wood Product Markets of Increased Demand for Mass Timber. Sustainability 2021, 13, 13943. https://doi.org/10.3390/su132413943

New Forests & al. 2021. A 2030 Investment Vision for Natural Climate Solutions. Recognising an Opportunity at Scale for Institutional Investors. https://newforests.com.au/wp-content/uploads/2021/02/2030-Investment-Vision-for-NCS.pdf

Singer (2016). Financing sustainable forest management in developing countries: the case for a holistic approach. International Forestry Review Vol.18(1), 2016. United Nations Forum on Forests Secretariat, 2 United Nations Plaza, DC2-2310A, New York, NY 10017, USA

UNCTAD. 2021. *World Investment Report 2021*. https://unctad.org/webflyer/world-investment-report-2021
United Nations PRI. *Sustainable land use*. https://www.unpri.org/sustainability-issues/environmental-social-and-governance-issues/environmental-issues/sustainable-land-use
https://www.ngfs.net/en

UN PRI. *Terms of Reference – PRI Sustainable Commodities Practitioners' Group.* https://dwtyzx6upklss.cloudfront.net/Uploads/l/r/o/tor_sc_practitioners_group_644584.pdf

Vivideconomics (October 2020). *The Inevitable Forest Finance Response : Investor Opportunities*. Inevitable Policy Response.

WEF. 2021. Consultation: Nature and Net Zero. In Collaboration with McKinsey & Company
WEF. 2021. Investing in Forests: the Business Case. 1t.org Insight report, in collaboration with Dalberg. June 2021 http://www3.weforum.org/docs/WEF_Investing_in_Forests_2021.pdf

WEF. 2021 https://www.weforum.org/reports/investing-in-forests-the-business-case

WRI. *Atlas of Forest and Landscape Restoration Opportunities*. https://www.wri.org/data/atlas-forest-and-landscape-restoration-opportunities

World Bank. 2020. Mobilizing Private Finance for Nature: A World Bank Group Paper on Private Finance for Biodiversity and Ecosystem Services. World Bank, Washington, DC.

WBCSD (2021). Forest Sector Net Zero Roadmap https://www.wbcsd.org/Sector-Projects/Forest-Solutions-Group/Resources/Forest-Sector-Net-Zero-Roadmap

WBCSD statement (2021). WBCSD's Forest Solutions Group's support for the United Nations Decade on Ecosystem Restoration. https://www.wbcsd.org/download/file/12253

WWF (2020). Assessment Report: Comparative Analysis of Benefit-Sharing Mechanisms in REDD+ Programs https://wwf.panda.org/wwf_news/?1368466%2FAssessment-Report-Comparative-Analysis-of-Benefit-Sharing-Mechanisms-in-REDD-Programs