



**NON-COPYEDITED DRAFT FOR PRESS REVIEW.  
EMBARGOED until 24 OCT 2022, 12:01 am ET**

# Finance for forests:

## Theme 3 Assessment

[V5.0 18 Oct 2022]

October 2022

### FOREST FINANCE

Theme 3 provides an overview of forest finance and forest goals; updates on available data and recent policies to channel finance to the forest sector; and an assessment of the role of public and private finance, and carbon markets for forest finance. It assesses how progress in the past year has advanced the 2030 global forest goals; the extent to which current finance is sufficient for meeting these goals, and where gaps remain. It also explores new forest finance-related areas, including public sector governance mechanisms, and direct finance mechanisms for Indigenous Peoples and local communities. This report builds on previous NYDF Progress Assessments of Goal 7, and Goals 8 & 9.

The Forest Declaration Assessment (formerly the New York Declaration on Forests (NYDF) Progress Assessment) is an independent, civil society-led initiative to assess progress toward the global goals of halting deforestation and restoring 350 million hectares of degraded land by 2030 as set out in international declarations such as the New York Declaration on Forests (2014) and the Glasgow Leaders' Declaration on Forests and Land Use (2021). Globally, terrestrial and coastal ecosystems including savannas, grasslands, scrublands, and wetlands are all under threat of conversion and degradation. Countering this threat for all ecosystems is essential to meeting global climate and biodiversity goals. This annual assessment of global progress for 2022, however, focuses specifically on forest ecosystems. It is published as a set of four reports covering different themes: Overarching forest goals, Sustainable production and development, Finance for forests, and Forest governance.

Achieving global mitigation results in line with the aim of limiting global temperature rise to 1.5°C, as articulated in the Paris Agreement, will require a drastic reduction in natural forest loss and degradation and a commensurate increase in restoration and reforestation activities, which must be pursued through equitable and inclusive measures. Nothing less than a radical transformation of development pathways, finance flows, and governance effectiveness and enforcement will be required to shift the world's forest trajectory to attain the 2030 goals. The 2022 Forest Declaration Assessment evaluates recent progress toward the 2030 goals and answer the question: **“Are we on track?”**

## Key Messages

Finance for forests is not on track to meet global goals to halt and reverse deforestation by 2030. It will cost up to USD 460 billion per year to protect, restore, and enhance forests on a global scale. Currently, domestic and international mitigation finance for forests averages USD 2.3 billion per year – less than 1 percent of the necessary total. For comparison, total finance for climate, from both public and private sources, reached USD 632 billion in 2019-20.

Funding for forests will need to increase by up to 200 times to meet 2030 goals. This funding does not need to come just from philanthropic donations or public sector development assistance—a wide range of financial mechanisms can support forest goals if they are properly designed, including domestic budgets and fiscal policies, private investments, blended and de-risked finance, grants or loans, readiness and capacity building support, and results-based payments.

Finance pledges made in 2021 demonstrate a substantial increase in ambition to meet 2030 forest goals. If they are fully delivered, they would quadruple annual finance for forests from 2021-25 to USD 9.5 billion. Yet, funding would still need to increase by up to 50 times to meet investment needs. One year on from these pledges, it is not yet possible to directly assess their progress because most have yet to publicly disclose on their implementation efforts. However, available data does not yet show an increase in funding corresponding to pledges made at COP26 in November 2021.

From 2010-20, governments committed USD 25.3 billion of domestic and international public funding to protect and conserve forests—financing committed with a stated forest objective, or under REDD+ strategies. Flows have increased since 2010, with a significant period of growth between 2016-19. In 2020, however, finance flows fell by almost half, likely due to countries' changing budget priorities in the COVID-19 pandemic. Even at its height, finance aligned with forest goals paled in comparison to domestic and international "grey" (potentially harmful) finance flows to agriculture and forest sectors). From 2010-20, grey investments by the public sector totaled at least USD 257 billion in domestic finance and USD 13 billion in international finance.

Indigenous Peoples and local communities (IPs and LCs), who are the most effective stewards and guardians of their forest territories, receive far less funding than their estimated finance needs for securing tenure rights and preserving forest ecosystems. Only 1.4 percent of total public climate finance in 2019-20 was targeted toward IPs and LC's needs, and only 3 percent of the financial need for transformational tenure reform is being met annually.

Private sector actors—companies, financial institutions, and philanthropies—have not yet leveraged their significant power to steer development and commodity production onto a sustainable trajectory in line with forest goals. Most financial institutions still fail to have any deforestation safeguards for their investments. Almost two thirds of the 150 major financial players most exposed to deforestation do not yet have a single deforestation policy covering their forest-risk investments, leaving USD 2.6 trillion in investments in high deforestation-risk commodities without appropriate safeguards.

Demand for nature-based carbon credits in the voluntary carbon market has grown significantly, driven primarily by interest from companies. The volume of carbon credits traded in the voluntary carbon markets grew by 89 percent in 2021, with 45 percent of all credits issued coming from forestry and land use projects. On the other hand, only 10 percent of the carbon credits issued in compliance markets in 2021 came from schemes that allow carbon credit use from forests. The average price of forest carbon credits in 2021 was between USD 4.7 and 15 per ton of CO<sub>2</sub>, well below the price needed to meet the Paris Agreement's target of limiting global warming to 1.5 °C. Overall, the contribution of carbon market finance is still minor compared to other green finance sources.

## Recommendations

Despite the price tag for protecting and restoring forests on a global scale—up to USD 460 billion per year—this is an investment that we cannot afford not to make. Achieving the 2030 forest goals is essential for ensuring a livable world in line with the Paris Agreement. Governments, financial institutions, companies, and philanthropies must step up to increase and align their spending and investments with forest maintenance and restoration goals.

The Forest Declaration Assessment Partners call on governments, companies, and financial institutions to utilize all tools at hand to substantially increase their investments in forests, while also shifting finance away from harmful activities.

The Assessment Partners urge those who make forest finance commitments—including endorsers of the Glasgow Leaders' Declaration—to collaborate with impacted communities to design their pledges, and to pair these pledges with transparent and timebound interim milestones and public reporting on disbursements, effectiveness of funding, and alignment of finance flows with forest goals. Commitment makers should detail what share of the pledged finance is additional versus preexisting planned funding and should clarify how, when, and where this finance will be spent. Evaluation mechanisms must be put in place to enable donors and communities to assess the impacts of disbursed finance and allow for needed adjustments. Inclusive and transparent processes are essential to understand how pledged finance compares to needs and can help guide and improve the impact of future investments, as well as help hold actors to account on their commitments. The management and governance of finance for forests must be developed in partnership with local implementing organizations to ensure that disbursed finance achieves its objectives.

All financial actors, including governments, financial institutions, companies, and philanthropies, must make every effort to support the involvement of IPs and LCs in forest and finance decision-making. Public and private actors must facilitate the flow of finance to IPs and LCs to better enable them to carry out forest-protection and conservation activities. Governments, multilateral institutions, and private foundations should prioritize the establishment of new and direct finance mechanisms for these activities and should codesign these mechanisms with IP and LC groups. Increased coordination and cooperation between donors, NGOs, and IPs and LCs can help to build trust and guide the most appropriate interventions. Public and private financiers must also reduce administrative and technical burdens and provide capacity building for IP and LC groups to receive and manage funds directly. Where intermediaries are necessary, organizations trusted by IPs and LCs should be prioritized.

Public sector actors must take concrete and far-reaching steps to implement and expand their finance commitments and align fiscal and financial policies with forest goals, including:

- Incorporate forest risks and impacts into public budgeting frameworks. Governments must assess the potential impact of public financial and fiscal decisions on forests and direct finance toward activities that present the least risk and most benefits to forests. Safeguard measures must be put in place when needed.
- Seize every opportunity to redirect harmful agricultural subsidies and other incentives (domestic and international) that drive deforestation and forest degradation. Governments should work to identify which subsidies lead to adverse forest impacts and, to the maximum extent possible while ensuring just and equitable outcomes, redirect and repurpose these subsidies, either by making financial support conditional upon achieving environmental objectives, or by channeling finance directly into deforestation-free incentive programs.
- Employ blended financing tools to leverage private sector finance for the protection of forests. Implement policies and instruments which can help to de-risk private investments to create an enabling environment for private finance.

Financial institutions and companies across sectors must recognize and act on the inherent business risks presented by deforestation and forest degradation and put in place measures and policies to combat this risk, including:

- Develop a full understanding of the company's or institution's exposure and contribution to climate- and forest-related risks and impacts (in the short, medium, and long term).
- Incorporate processes for assessing climate- and forest-related risks into existing risk management processes. This includes processes for identifying, managing, and mitigating risks, utilizing frameworks like the [Taskforce on Nature-related Financial Disclosure \(TNFD\) Nature-Related Risk & Opportunity Management and Disclosure Framework](#).
- Move from voluntary to mandatory disclosure of forest-related risks and progress against pledges to increase transparency and allow investors to reconsider their capital allocation decisions. Disclosure platforms such as CDP can support increased transparency, while Global Canopy's Deforestation-Free Finance Roadmap can provide practical guidance on developing a deforestation-free strategy.<sup>1</sup>
- Implement standards and policies that actively promote green investments and lending to forest conservation-oriented land sector businesses.
- Prioritize investments that are aligned with and synergetic with forest goals, applying the mitigation hierarchy to all investment decisions. Limit the volume of private finance flowing to activities that have a detrimental impact on forests.

Where private sector actors choose to invest in nature conservation and restoration, they must ensure that they are supporting high-quality and high-integrity interventions in line with the mitigation hierarchy and science-based targets. This could include market-based options, such as participation in carbon markets with forest- and land-based credits, or non-market-based options such as support for implementation of jurisdictional or landscape scale sustainability activities. Actions to achieve this goal include:

- Invest in landscape finance for forest protection activities that holistically address the major drivers of deforestation, conversion and land degradation, both market and non-market based. One such example is support of multi-stakeholder platforms that can promote constituency building, strategic planning, mapping, and project development.
- Only use forest-based carbon credits to compensate for residual emissions, after first prioritizing emissions reductions within the actor's internal operations.
- In making purchasing decisions, prioritize 1) crediting standards that meet essential social and environmental integrity criteria, 2) high-quality credits from jurisdictional REDD+ programs 3) projects that are nested within high-quality jurisdictional REDD+ programs, and 4) credits from other high-quality projects and programs that reduce threats to standing tropical forests.
- Develop, scale up, and adopt governance frameworks which establish rules for public and private use of, and claims about, carbon credits.
- Develop, scale up, and adopt governance frameworks that establish rules for the public and private use of, and claims about, carbon credits.

---

<sup>1</sup> See Global Canopy: Deforestation Free Finance. Available at <https://guidance.globalcanopy.org/roadmap/>.

# INTRODUCTION

## Why look at forest finance?

Achieving international forest goals requires substantial public and private investments to address the drivers of deforestation, and to manage and restore forests sustainably. Mitigating environmental impacts on landscapes and agricultural systems requires profound changes to economic and legal systems. Without both enforcement and compensation mechanisms, forests will continue to be worth more to users cleared than standing – especially in the short term.

Estimates suggest that it will cost up to USD 460 billion per year to reduce deforestation and implement restoration and sustainable forest management at a sufficient scale to protect and restore forests globally.<sup>1</sup> This funding must be met through both public and private finance.

Reaching forest goals not only requires more finance earmarked for forest activities—referred to in this report as “green finance”—but also shifting finance away from investments in potentially harmful activities—called “grey finance”—towards sustainable actions. Aligning of finance flows may be done, for instance, through requiring environmental safeguards to be in place before awarding finance, or redirecting investments to conservation and sustainable production.

## What has been pledged on forest finance?

A range of recent international finance pledges, including those made at COP26, raise global ambition for progress (**Table 1**). The total amount of quantitative pledges by governments, financial institutions, companies, and foundations amounts to USD 36.2 billion between 2021-25 – or on average USD 7.2 billion per year<sup>2</sup>. It is also not clear how quantitative targets relate to previous pledges – i.e., whether these pledges provide additional funding. Several pledges have only defined qualitative targets, such as aligning existing finance or to broader forest protection goals globally or in specific geographies. Only one of the pledges has been realized: the LEAF Coalition has mobilized USD 1 billion in finance by the end of 2021, although it is unclear how much, if any, of these funds have been disbursed.

While many pledges plan or have already implemented some form of reporting mechanism, most have not yet publicly disclosed their progress. The Global Forest Finance Pledge and the Congo Basin Joint Donor statement have not provided any public information about how progress will be reported. The extent to which these pledges can provide a baseline for tracking progress is also limited, since many do not set clear, measurable targets or are not transparent about the targets in the first place or contributions from different pledges.

**Table 1. Examples of recent pledges relevant to forest finance**

Pledge/ Initiative	Description	Intermediate targets And progress reporting	Final target
-----------------------	-------------	---	--------------

<sup>2</sup> Climate Focus calculation based on sum of finance pledges announced at COP26, assuming no overlap between different pledges.

<p><a href="#"><u>Congo Basin Joint Donor Statement (2021)</u></a></p>	<p>11 countries (with representation from Europe, North America, and East Asia) and 1 philanthropic organization pledged at least USD 1.5 billion of public and private finance from 2021-2025 to support protection of the Congo Basin ecosystems</p>	<p>No information provided</p>	<p>By 2025, mobilize USD 1.5 billion of public and private finance Basin ecosystems</p>
<p><a href="#"><u>Finance Sector Roadmap for Eliminating Commodity-Driven Deforestation (2022)</u></a></p>	<p>The Roadmap provides recommendations for financial institutions in order for them to eliminate commodity-driven deforestation, conversion, and associated human rights abuses from their portfolio by 2025. It was developed to make practical guidance available to the array of financial institutions committing to the Financial Sector Commitment on Eliminating Agricultural Commodity-Driven Deforestation, made at COP26.</p>	<p>The roadmap requires annual reporting by financial institutions starting in 2023. A first report on joint progress will be published in 2022.</p>	<p>Zero commodity-driven deforestation in financial portfolios by 2025</p>
<p><a href="#"><u>Financial Sector Commitment Letter (2021)</u></a></p>	<p>33 financial institutions, mostly from Europe and North America, committed to eliminate commodity-driven deforestation from investment and lending portfolios by 2025</p>	<p>By 2022, assess deforestation risk in investment and lending portfolio</p> <p>By 2023, disclose deforestation risk and mitigation activities in portfolios</p> <p>By 2025: Publicly report credible progress, in alignment with peers, on the milestones</p>	<p>By 2025, make best efforts to eliminate commodity-driven deforestation from portfolios and only provide finance to clients that have met risk-reduction criteria and increase investment in nature based solutions</p>
<p><a href="#"><u>Global Forest Finance Pledge (2021)</u></a></p>	<p>12 countries pledged USD12 billion for forest-related climate finance between 2021-2025. These will be delivered through funding for results-based payments, technical and financial cooperation for capacity building, as well as other activities that support and strengthen governance, supply chain initiatives, financial markets and investments, restoration and conservation, and efforts to combat forest crimes and fires.</p>	<p>No information provided</p>	<p>USD 12 billion by 2025</p>
<p><a href="#"><u>IPLC Forest Tenure Joint Donor Statement (2021)</u></a></p>	<p>23 countries and philanthropic organizations pledged USD 1.7 billion of public and private finance in the period 2021-2025 for strengthening IPLC tenure rights and the role of IPs and LCs as guardians of forests and nature</p>	<p>The signatories will annually report on the pledge progress, including updates on how funds are being spent. The first report will be published at COP 27.</p>	<p>USD 1.7 billion by 2025</p>

<p><u>Lowering Emissions by Accelerating Forest (LEAF) Coalition (2021)</u></p>	<p>This public-private coalition of governments and international companies seeks to mobilize finance for Emissions Reductions in tropical forests at a floor price of USD 10 per ton of CO<sub>2</sub> equivalent.</p>	<p>By 2021, mobilize USD 1 billion (target met)</p>	<p>Not defined</p>
<p><u>Natural Capital Investment Alliance (2021)</u></p>	<p>15 finance institutions from Europe and Australia are members of this group which seeks to mobilize aggregated finance through investment products aligned with Natural Capital themes.</p>	<p>The website provides regular updates on individual institutions' progress. Most of the activities reported are currently in a planning stage.</p>	<p>By 2022, mobilize at least USD 10 billion</p>

## How does this report assess progress?

This report assesses the extent to which global public and private finance is aligned with forest goals. The goal for Theme 3 is to exponentially increase investments in forests, as well as avoid or mitigate the impacts of harmful investments. Under the Paris Agreement, parties committed to making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development (Art.2.1.c).<sup>ii</sup> The building blocks to successfully achieve the objectives of Theme 3 – which are similar for both public and private finance – are described in **Figure 1**. Other essential elements for supporting a transition to forest-aligned finance – such as strengthening forest governance and building forest-risk assessment capacity - are covered in other Assessment reports in this series (Theme 4 on Forest governance and Theme 2 on Sustainable production and development).

**Figure 1. Building blocks for progress on forest finance [to be converted into figure]**

	Forest-aligned finance flows	Forest-aligned economic framework
<p><b>Public sector</b></p>	<ul style="list-style-type: none"> <li>● Increased flows of public finance for the sustainable use, protection, and enhancement of forests, including supporting IP and LC tenure and forest management; and</li> <li>● Current finance flows such as national budgets and subsidies shifted away from forest-risk activities to those aligned with forest goals.</li> </ul>	<ul style="list-style-type: none"> <li>● A policy and incentives framework that encourages economic decision-making in line with forest goals</li> <li>● Sufficient capacity for forest agencies to regulate and – if desired – engage with carbon markets and other carbon pricing instruments.</li> </ul>

<b>Private sector</b>	<ul style="list-style-type: none"><li>• Increased volumes of private investment into sustainable commodity production and forest protection and conservations; and</li><li>• Current private investment shifted away from and/or applying safeguards for investments in forest-risk activities</li></ul>	<ul style="list-style-type: none"><li>• Investment decision-making frameworks that embed carbon costs into company operations and prioritize reducing GHG emissions in companies' own value chains</li><li>• High-quality and high-integrity market- and non-market based investment-ready initiatives such as carbon markets and landscape / jurisdictional approaches to enable corporate investments beyond their value chains</li></ul>
-----------------------	--	---

This report reflects previous approaches taken for the finance-related goals of the NYDF (8 & 9); relying predominantly on publicly available finance datasets: largely the OECD and FAOSTAT. We also rely on existing data analysis from Forest Declaration Assessment Partners, including from Global Canopy's Forest 500 and Forest Trends' Ecosystem Marketplace. Where quantitative data is unavailable, the report relies on qualitative research complemented by anecdotal examples from country-level assessments that have also been conducted under this year's Forest Declaration Assessment.<sup>3</sup>

Overall, flows of finance to forests globally are poorly tracked, are difficult to quantify, and are therefore not fully captured in this assessment. Total finance volumes remain difficult to track, due to poor transparency as well as the lack of global standards for tracking climate-related mitigation finance. This absence of standards also creates risks of overlap, resulting from the way different sources define finance flows. Limited data availability also remains a significant problem for grey finance estimates, particularly from domestic sources. However, there is some movement to improve reporting infrastructure. Starting this year, financial institutions can disclose to CDP on forests-related portfolio exposures, risks, and opportunities.<sup>iii</sup>

Though this report aims to assess progress globally, it contains relatively more information on tropical forests and developing countries, in part due to a trend in available data and literature. Future assessments will continue to aim for more comprehensive coverage globally.

## FINDINGS

Insufficient financing has been committed to the forest sector, while much larger levels of public finance still flow to activities that risk directly or indirectly supporting forest destruction and degradation. In the landscape of climate finance, funding to forest activities is far less than funding channeled to other mitigation sectors with equal or lower estimated mitigation potential.

Business-as-usual grey finance for agriculture and forest activities far outweigh green finance. Currently, domestic and international mitigation finance for forests averages USD 2.3 billion per year between 2020-22 – less than 1 percent of the of total necessary financing. For comparison, between 2010-20, grey public finance flows were estimated to total just over USD 270 billion: USD 257 billion in domestic finance and USD 13.4

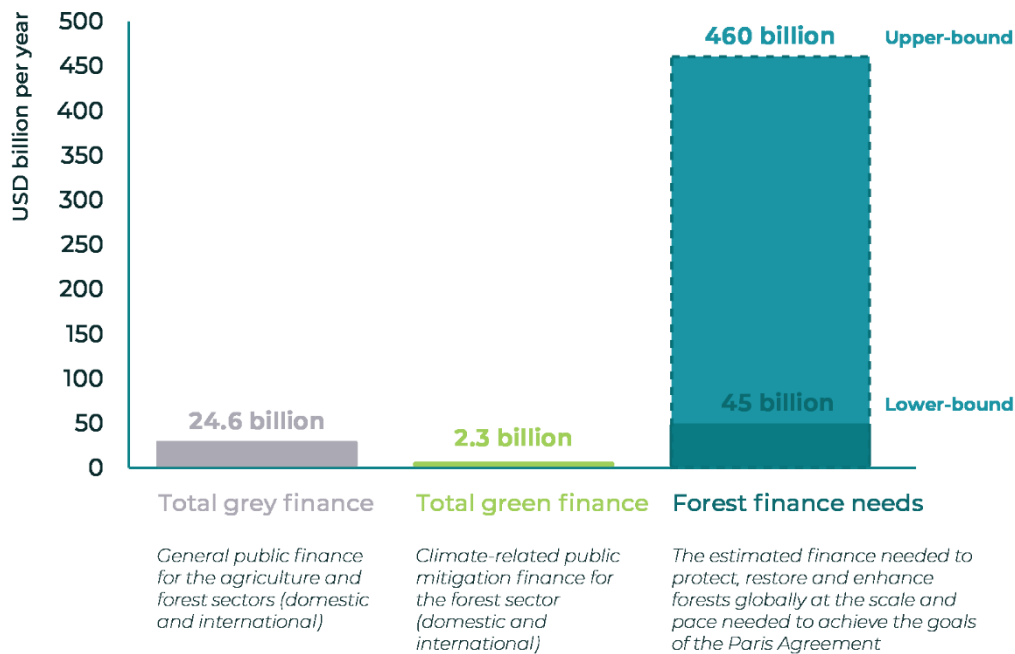
<sup>3</sup> The 13 countries assessed this year include: Cambodia, Cameroon, Canada, Colombia, Democratic Republic of the Congo, Dominica, Ecuador, Gabon, Indonesia, Kenya, Liberia, Republic of the Congo, and Vietnam.



billion in international finance.<sup>d,4</sup> Almost 20 percent of total grey finance flows were provided to or in high deforestation countries.<sup>e</sup> On average, grey public finance outweighs green public finance at a ratio of over 10:1.

Yet, even if all grey finance flows were redirected to green, finance totals would still fall woefully short of the total finance needed to protect forests (**Figure 2**). As in previous years, limited available data on corporate and philanthropic investments suggest that these remain a relatively small source of green finance, likely in the order of USD several hundred billion.

**Figure 2. Grey and green public finance, compared against total costs to protect and restore forests, in billion USD per year**



Even compared to finance with a specific climate objective, forests and land use are proportionately underfunded. Total global climate finance, from both public and private sources, reached USD 632 billion in 2019-2020 alone.<sup>5</sup> Of this total, only about USD 14.3 billion (2.3%) was dedicated to land use. This comprised USD 8.1 billion in mitigation finance; approximately USD 3.4 billion of which went to forestry projects. A further USD 6.2 billion was provided as adaptation or ‘dual-benefit’ finance to (undefined) land use activities.

Pledges made in 2021 demonstrate a substantial increase in ambition for green finance. If they are fully implemented, and are additional to pre-existing commitments, this combined ambition would lead to a quadrupling of annual forest finance to USD 9.5 billion between 2021-25<sup>f</sup>. This also includes a notable increase of funding from philanthropy and corporate companies, for which we have so far only detected minor amounts of funding based on very limited data. Overall, this increase would be substantial but still very far from the need to achieve forest goals by 2030.

Available data does not yet show an increase in funding corresponding to pledges made at the climate summit in Glasgow in November 2021. Instead, current funding levels appear to have dropped precipitously

<sup>d</sup> See sections 2.1.1 and 2.1.2 for a breakdown of these figures.

<sup>e</sup> Approximately USD 51.2 billion of the grey finance total was provided to or in high deforestation countries. High deforestation are countries with an annual average deforestation rate that exceeds 30,000ha.

<sup>f</sup> The sum of average annual green funding between 2010-22 and the average annual amount of combined pledges (see section above)

in the past year (see Section 1). Public and private sector funders making pledges must provide more transparency on measurable and clear targets to enhance their accountability, including targets for greening grey finance.

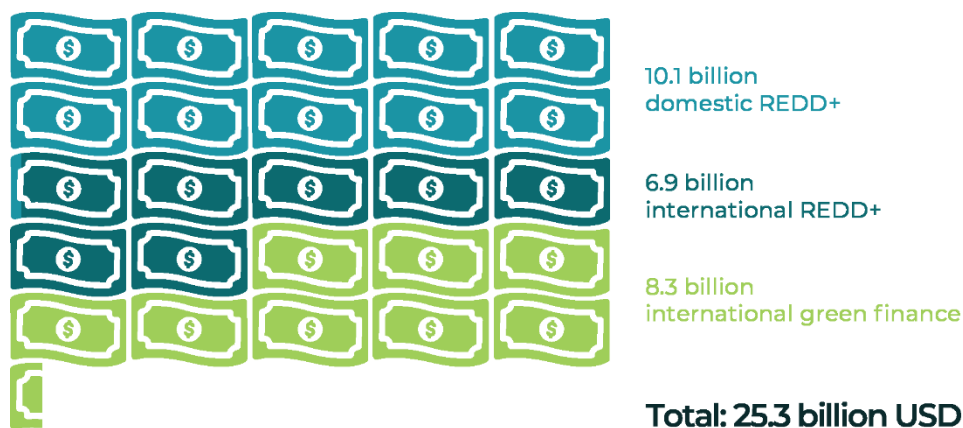
# 1. Have governments made finance flows consistent with forest goals?

## 1.1 Increasing public green finance for the sustainable use, protection, and enhancement of forests

*Public support provided to the land sector – including agriculture, forestry, and land use – can greatly shape the extent to which forests mitigate or contribute to climate change, domestically and internationally. Public finance also has an influence on private sector investment, by creating incentives which drive private finance towards activities to protect and enhance forests, or to harmful activities. Green forest finance can support forest protection, sectoral research and capacity building, and economic incentives for leveraging private finance.*

International and domestic public finance has, to date, provided the bulk of support to forests. Between the years 2010-20, governments committed USD 25.3 billion of domestic and international public funding aligned with forest goals (**Figure 3**).<sup>9</sup> During this period, USD 8.3 billion of this total was provided by governments, multilateral development banks, and multilateral organizations to activities that promote the protection, sustainable management, and enhancement of forests.

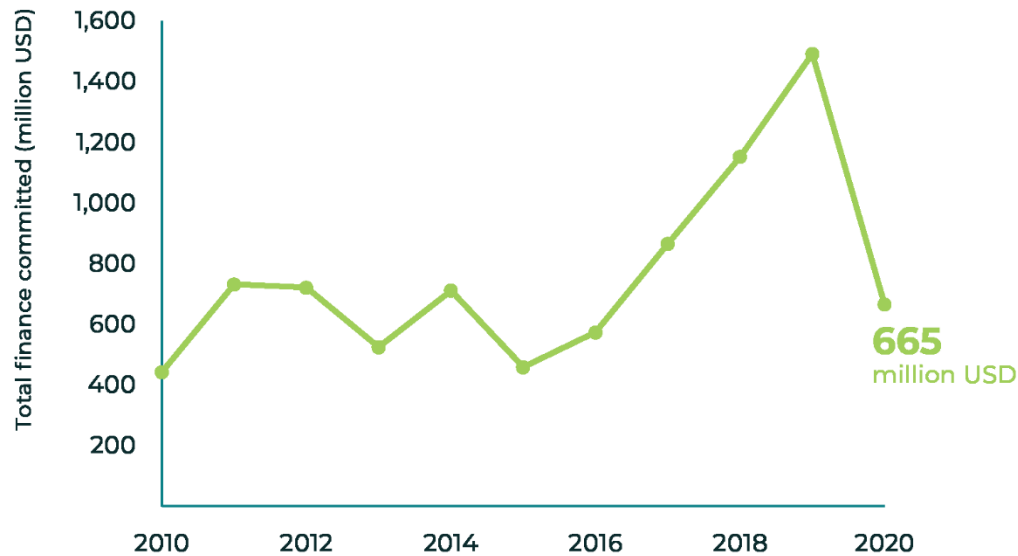
**Figure 3. International and domestic public finance committed to forest activities between 2010-2022, in billion USD**



<sup>9</sup> This total includes international climate-related development finance, and international REDD+ and domestic REDD+ finance. Note that finance estimates cover different timeframes – the majority spanning only between 2010-2020. International development finance includes bilateral and multilateral finance commitments made during the period 2010-2020, as recorded in the OECD DAC External Development Finance Statistics database. International REDD+ includes REDD+ readiness and implementation finance commitments by NICFI, FCPF, GCF, FIP, ISFL, UN-REDD, REDD Early Movers, and CBFF between 2010-2020, including some more recent figures; data was obtained directly from contacts, from publicly available reports, or from Climate Funds Update. Domestic REDD+ includes government REDD+ finance commitments made by 16 REDD+ countries that budgeted for government contributions. Data obtained from EPRDs available on the FCPF website; finance commitments cover different timeframes.

Flows of international green finance have increased since 2010 (**Figure 4**), with a significant period of growth between the years 2016-2019. In 2020, however, finance flows fell by almost half, likely due to countries' changing budget priorities in the COVID-19 pandemic.<sup>6</sup> It remains to be seen how and when finance flows to forests will rebound and when they will pick up in response to recent pledges (see **Table 1**).

**Figure 4. International climate mitigation finance committed to forest sectors by bilateral and multilateral providers between 2010-2020, in million USD**



Between 2010-20, USD 6.9 billion was committed by multilateral climate funds and bilateral donors under the framework of REDD+ (**Box 1**).<sup>7</sup> Disbursements of results-based payments for REDD+ however remain slow, with only a few countries receiving finance and only half of committed finance disbursed. Under REDD+, governments invest finance for strategies to reduce forest emissions – typically in tropical or subtropical countries – in three phases: readiness, implementation, and payment for results. Also in 2010-20, USD 10.1 billion was committed by governments in high deforestation countries to activities under domestic REDD+ plans.<sup>8</sup>

### **Box 1. Barriers to progress in implementing REDD+**

REDD+ is the UNFCCC framework for “Reducing Emissions from Deforestation and Degradation plus conservation, sustainable management, and enhancement of forest stocks.” REDD+ provides developing country policy makers with a framework for national (or subnational) climate action in the forest sector. The Warsaw Framework for REDD+, the Cancun REDD+ safeguards, and other UNFCCC decisions provide high-level guidance for governments on how to achieve emissions reductions and access results-based finance. Complemented by the requirements and guidelines of several donor initiatives and standards, these frameworks guide countries in developing the systems needed for monitoring, accounting, and reporting emission reductions, while also safeguarding initiatives’ social and environmental benefits as well as their equal and fair distribution. At the same time, the UNFCCC frameworks guide countries in setting up the coordination bodies for REDD+ programs and developing policies that address drivers of deforestation and forest degradation.

Although dozens of governments have initiated REDD+, laying the groundwork for reforms and driving policy changes, in most cases REDD+ programs have not yet yielded a reduction in deforestation, and only a handful of countries have received payments for forest emission reductions.<sup>9</sup> Most REDD+ initiatives are still a long way from stopping tropical deforestation and have yet to move from a preparatory “readiness” stage to accessing results-based finance.<sup>10</sup> Worryingly, developing country governments are behind in initiating the bold sectoral reforms needed to incentivize the sustainable use and protection of forest, and developed country governments are behind in delivering payments to disincentivize forest destruction.<sup>11</sup>

The complexity of REDD+ activities and the capacities required to receive results-based payments have posed barriers to viability and delivery of REDD+. Meeting donors’ requirements has been challenging as activities to reduce forest sector emissions have proven to be more complex and expensive than expected.<sup>12</sup> REDD+ countries face a multitude of standards, program requirements, price offers, and donor expectations on top of the UNFCCC frameworks. Standards and programs are – except for the GCF – not the result of multilateral negotiations. Different standards take diverse approaches to ensuring the environmental and social integrity of REDD+ programs – for example, in the setting of safeguards, reference levels and systems for the monitoring, reporting and verification of emission reductions.<sup>13</sup> Overlapping program requirements create confusion and additional burdens on REDD+ countries. Furthermore, REDD+ is implemented outside of existing policy frameworks and fails to be integrated into relevant sectoral policies,<sup>14</sup> despite mechanisms for multistakeholder coordination.<sup>15</sup>

## **1.2 Aligning business-as-usual, “grey” finance to support the sustainable use and protection of forests**

*Opportunities for ‘greening’ grey finance include making support conditional upon achieving environmental objectives and removing or redirecting agricultural production support to other public goods and services. Policies for the land sector can incentivize emission reductions, redirect subsidies away from unsustainable agriculture, improve access to sustainable agricultural and industrial techniques, and secure land tenure.<sup>16</sup> Financial supervisors can also drive investor actions, choices, and risk in alignment with forest goals. Transparency is needed from governments to understand how domestic finance supports forest protection and conservation, and which safeguards are in place to prevent investments in other development activities from negatively impacting forests. In addition, green budgeting, green taxonomy, and risk assessment tools help to align and redirect finance flows to support forest goals.*

Green finance flows dedicated to forest activities are dwarfed by flows of finance to business-as-usual activities that have the potential to drive deforestation or forest degradation. Between the years 2010-20,

grey public finance flows were estimated to total just over USD 270 billion: USD 257 billion in domestic finance and USD 13.4 billion in international finance.<sup>h</sup> Almost 20 percent of total grey finance flows were provided to or in high deforestation countries.<sup>i</sup>

Green budgeting tools are being developed to assess the extent to which budgetary and fiscal policies are coherent with the delivery of national and international climate and environmental commitments. Green budgeting involves evaluating the environmental impacts of budgetary and fiscal policies and assessing opportunities for aligning public investment and taxation with climate goals.<sup>17</sup> The OECD Paris Collaborative for Green Budgeting is working with governments and experts to define methodologies for aligning national and international budgetary policies.

The EU and Colombia, along with several other governments, are pioneering the application of “green taxonomy” tools to assess opportunities for green investment. Green taxonomy tools provide a standardized classification system that identifies projects with environmental objectives and mobilizes public and private finance to such activities. Both, the European Union’s taxonomy<sup>18</sup> and Colombia’s taxonomy<sup>19</sup> were implemented in 2022 and contain technical screening criteria for forest-related activities. The green taxonomy functions as an investment screening framework to direct finance towards activities that present the least risk and most benefits to forests.

New risk assessment frameworks are being developed to help financial actors understand the systemic risks that biodiversity loss and ecosystem degradation pose to their investments. It has been suggested that financial regulators have both the mandate and authority to ensure that financial flows do not contribute to the depletion of nature and forests, and financial actors around the world are beginning to embed such considerations in their decision-making.<sup>20</sup> Notable examples can be found in the Netherlands,<sup>21</sup> France,<sup>22</sup> Brazil,<sup>23</sup> Malaysia,<sup>24</sup> and Chile.<sup>25</sup> Regulators, financial authorities and central banks are still working to fill gaps in understanding how systemic financial risks are associated with ecosystem degradation.<sup>26</sup>

One notable development is the recent ‘Call to Action’ by WWF and over 90 other organizations, who have developed a roadmap to help financial institutions embed climate- and biodiversity- related risks into their mandates. The Call to Action – which targets in particular finance ministers engaging in upcoming summits such as COP27 and Biodiversity COP15 – urges financial actors to become ‘nature-positive’ by 2030 and achieve net-zero emissions by 2050. Proposed actions include making monetary policies and regulatory instruments better reflect environmental economic costs, and requiring all regulated financial institutions publish credible transition plans for biodiversity and climate change.<sup>27</sup>

### 1.3 Supporting IPs and LCs’ tenure and forest management

*Protecting land rights of IPs and LCs is an evidence-backed climate change solution that costs a fraction of other mitigation options. Policies and laws that recognize the tenure and governance rights of forest communities are essential for securing forest protection. Global finance needs for securing land rights for*

---

<sup>h</sup> Climate Focus analysis. *Domestic finance* includes government expenditure on the agriculture and forestry sectors, in the 41 countries covered by FAOSTAT data. Cumulative 2010-2020. Note that this is likely to be a significant underestimate, given the high number of missing countries. *International finance* includes the international development finance commitments of the 142 countries reported in the OECD Creditor Reporting System database. Finance flows included are: *Agricultural development; Agricultural inputs; Food crop production; Industrial crops/export crops; Livestock; Agrarian reform; Agricultural services; Livestock/veterinary services; Forest industries.* Cumulative 2010-2020.

<sup>i</sup> Approximately USD 51.2 billion of the grey finance total was provided to or in high deforestation countries. High deforestation are countries with an annual average deforestation rate that exceeds 30,000ha.

*IPs and LCs to enable forest mitigation activities are estimated at USD 8.9 billion in total, which is equal to just over USD 315 million per year between now and 2050.<sup>28</sup> IPs and LCs' needs represent only 1.4 percent of the total public climate finance provided in the years 2019-20.<sup>29</sup>*

IPs and LCs receive far less funding than their estimated finance needs for securing tenure rights and preserving the ecosystems in their territories. Rainforest Foundation Norway (RFN) estimated that projects supporting IPLC tenure and forest management received approximately USD 270 million per year on average during the period 2011–20.<sup>30</sup> Of this total, it was estimated that only 11 percent was provided to projects that advanced tenure security – meeting only 3 percent of the financial needs identified by the Rights and Resources Initiative (RRI) for transformational tenure reform. Additionally, most finance provided to IP and LC tenure and forest management activities passes through larger intermediaries, creating risks that only a small portion of finance actually reaches IP and LC beneficiaries. In RFN's analysis of donor transactions to approximately 1,656 IP and LC organizations, only 17 percent of projects included the name of such an IP and LC organization in the project implementation description.

Governments, multilateral institutions, and private foundations should prioritize the establishment of new and direct finance mechanisms for these activities and should codesign these mechanisms with IPLC groups. In order to guarantee that forest conservation and restoration activities are sustainable and transformational, financial (and non-financial) benefits must equitably flow to different stakeholders involved, particularly IPs and LCs, through the design and implementation of benefit sharing arrangements. These arrangements must ensure that forest conservation and restoration activities provide net socioeconomic benefits to affected stakeholders by requiring: deep and significant participation; broad and inclusive representation; transparency and accountability; respect for rights including free, prior and informed consent (FPIC); adequate compensation; and adaptive management.

## **2. Have private companies made finance flows consistent with forest goals?**

### **2.1 Sustainable investments in forest protection and conservation, commodity production, and resource extraction**

*Private finance has considerable leverage power to steer commodity production onto a sustainable trajectory and enable forest protection and conservation. This section assesses the extent to which private investment is being directed into activities that increase the sustainability of commodity production and forest management, whether through targeted green investment or by adding forest safeguards to financial flows. A 2016 estimate from Vivid Economics states that it would take USD 160 - 233 billion in direct investment and trade finance each year to make four of the major forest-damaging commodity supply chains – cattle, soy, palm oil and pulp and paper – deforestation-free.<sup>31</sup>*

Limited data that is available suggest that the magnitude of private green finance reaches several billion USD, a fraction of what is needed. In our 2017 report, the Assessment Partners estimated the cumulative private sector investment in forest-related subsectors amounted to USD 3.3 billion over the period 2009-15.<sup>32</sup> A more recent estimate suggested that the private sector now spends an average of USD 7 billion per year on sustainable supply chains alone.<sup>33</sup> Other private funding is also being channeled into sustainable land practices through public-private partnerships, with an estimate from 2020 suggesting these partnerships account for at least USD 683 million globally.<sup>34</sup> On the philanthropic side, of the average annual USD 1.3 billion

channeled to climate change mitigation between 2015-20, only around USD 95 million annually was dedicated to direct forest activities.<sup>35</sup>

Private finance flowing to grey investments is equally hard to quantify. Anecdotal evidence suggests that, as with public investment, it dwarfs green finance flows. Non-profit Global Canopy reported that the top 150 financial institutions included in their 2022 Forest 500 assessment provide USD 7.1 trillion to the 350 companies with the greatest influence in forest-risk commodity supply chains.<sup>j</sup> It is worth noting that given the limited scope of this estimate, comprehensive figures are likely to be of much larger magnitude. Another report indicates that between 2015-20, global meat and dairy companies – some of the largest contributing industries to tropical deforestation<sup>k</sup> – received over USD 478 billion in financing from private financial entities.<sup>36</sup>

Most of the major financial institutions exposed to deforestation do not have any deforestation safeguards for their investments.<sup>l</sup> In 2021, this represented more than USD 2.6 trillion in investments in high deforestation risk commodities that are not covered by a forest conservation policy.<sup>37</sup>

### 3. Are carbon markets contributing to forest finance?

*Private sector actors have multiple opportunities to invest in nature conservation and restoration, including market-based options such as participation in carbon markets with forest-based credits, and non-market options such as support for implementation of jurisdictional or landscape scale sustainability activities. In the absence of data on private sector direct investments in jurisdictional and landscape approaches, we are unable to assess those contributions. However, data is available for finance flowing through carbon markets; therefore, this section assesses progress toward leveraging carbon markets for forest goals.*

#### 3.1 Leveraging voluntary carbon markets for forests

*The voluntary carbon market (VCM) allows companies, private entities, and governments to purchase carbon credits generated by a wide range of emissions mitigation projects, certified by an array of different crediting standards and programs. While decarbonization through direct emission reductions in company and institutions' own value chains should be prioritized, carbon credits can – according to net zero frameworks such as the SBTi<sup>38</sup> – be used for compensating or neutralizing residual emissions that cannot yet be mitigated or to finance additional climate mitigation beyond their science-based emission reduction targets. Using a carbon price that includes the social and environmental costs of emissions when purchasing high quality credits can finance additional reductions while contributing to and supporting future climate solutions.<sup>39</sup> With adequate levels of ambition, integrity and strategic alignment, carbon*

---

<sup>j</sup> Global Canopy identifies and assesses the 150 financial institutions providing the most finance to the 350 companies with the greatest exposure to tropical deforestation (as identified by the Forest 500 assessment). This figure includes shareholdings, loans and underwritings, and bondholdings. Source: Global Canopy (2022) Forest 500 update of financial institutions with greatest exposure to tropical deforestation. Available at <https://bit.ly/3BIHud9>.

<sup>k</sup> Cattle rearing alone has been estimated to account for 36 percent of tree cover loss associated with agriculture occurring between the years 2001 and 2015. See WRI (2018) Global Forest Review: Deforestation Linked to Agriculture. Available at [https://research.wri.org/gfr/forest-extent-indicators/deforestation-agriculture?utm\\_medium=blog&utm\\_source=insights&utm\\_campaign=globalforestreview](https://research.wri.org/gfr/forest-extent-indicators/deforestation-agriculture?utm_medium=blog&utm_source=insights&utm_campaign=globalforestreview).

<sup>l</sup> In Global Canopy's 2022 Forest 500 assessment, 93 of the 150 financial institutions most exposed to deforestation do not have a single deforestation policy covering their investments in companies in the highest forest-risk commodity supply chains.

*credits can provide a source of funding to support the development of jurisdictional REDD+ programs and to catalyze implementation and results at scale.*

Finance flows generated by the VCM still remain miniscule compared to the (up to) USD 460 billion per year in finance needs estimated for the protection, restoration, and enhancement of forests globally.<sup>40</sup> The numbers are however growing quickly with the values traded in just the first half of 2021 – USD 544 million – equating to more than double the 2020 total.<sup>41</sup>

Demand for nature-based carbon credits from project-scale and jurisdictional-scale activities has grown significantly in recent years. The volume of carbon credits traded in the VCM exploded in 2021, reaching a total of more than 354 MtCO<sub>2e</sub>, 89 percent more than in 2020.<sup>42</sup> This growth was primarily driven by the increasing number of companies using carbon credits to meet their net zero commitments or to contribute to mitigation beyond their targets. . Alongside voluntary net-zero commitments, a variety of sectoral- and non-governmental organization (NGO)- led initiatives have emerged in recent years to support companies in the limited use of certain credits to offset residual emissions, in line with SBTi.<sup>m</sup> Increased interest in jurisdictional REDD+ means that the issuance of credits may further increase in coming years. Issuances elsewhere are already rising to meet – and possibly exceed – current demand, with Gabon set to issue over 90 million REDD+ credits, and Belize a further 6 million, within the coming year.<sup>43</sup>

Forestry and land use carbon credits have gained considerable prominence in the VCM, accounting for over 45 percent of all credits issued in 2021.<sup>44</sup> Of these credits, approximately 56% were generated from avoided deforestation projects, 27% from avoided conversion, 13% from afforestation and reforestation, and 3% from improved forest management projects.<sup>n</sup> Forest carbon credits were transacted nearly 2.7 times more than in 2020, amounting to a total 160 MtCO<sub>2e</sub> over the full course of the year.<sup>45</sup>

The average price at which such credits were sold in the VCM during 2021 was estimated at between USD 4.7 and USD 15 per ton of CO<sub>2</sub>.<sup>46</sup> This price is far below the cost range recommended by economists for effectively meeting the Paris Agreement's 1.5-2 degree target, which ranges between USD 50 and 250 per ton of CO<sub>2</sub>.<sup>47</sup> Cheap forest and land use carbon credits are unlikely to cover the true cost of impactful conservation and restoration activities; nor can they generate adequate levels of income for implicated communities on the ground.

Credits in the land and forest sector have historically been criticized for issues related to additionality, permanence, baselines for measuring emission reductions, and adverse impacts on IPs and LCs. Skepticism - not just around forest and land use credits- has in recent years spurred the development of integrity initiatives. These initiatives aim to help projects meet quality standards, such as demonstrating clear additionality, and robust baselines to accurately quantify emission reductions or removals. Examples include the Integrity Council for the Voluntary Carbon Market, which is currently developing guidelines to promote higher quality and standardization of the market; and the Voluntary Carbon Markets Integrity Initiative (VCMI), a multi-stakeholder platform developed to drive credible, net-zero aligned participation in the market. Credits from the land sector remain attractive to voluntary market buyers with net zero targets that depend on removals to neutralize emissions that cannot yet be mitigated through direct measures. For example, energy sector companies – primarily large oil and gas companies – continue to be the biggest

---

<sup>m</sup> Examples include the UNFCCC's Race to Zero initiative, which now hosts 5,235 company commitments, and the Glasgow Financial Alliance for Net Zero, a coalition of financial institutions representing around 40% of global banking assets that have now made such commitments.

<sup>n</sup> The remaining 1% were related to carbon sequestration in agriculture, reduced emissions in agriculture, and wetland restoration. Source: Climate Focus: The Voluntary Carbon Market Dashboard. Retrieved in July 2022 from <https://bit.ly/3MU2R97>.



purchasers of forest and land use carbon credits, responsible for approximately 70% of all carbon credits purchased between January and September 2021.

### **3.2 Using compliance markets for mandatory emission reductions to support forests**

*Similarly, compliance markets allow entities covered by mandatory emission reduction commitments to buy carbon credits to meet their obligations. This includes national obligations under international agreements such as the Paris Agreement; obligations imposed by certain sectors such as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA); and obligations imposed by domestic laws, such as a national emissions trading scheme (ETS) or carbon tax.*

The overall contribution of compliance schemes to forest finance is small and is likely to remain so in the near future. Only 10 percent of the carbon credits issued globally in 2021 came from schemes that allow carbon credit use from forests.<sup>48</sup> The carbon crediting mechanism for the aviation sector – CORSIA – is often cited as a potential driver for future carbon credit demand. Yet, in light of a decision to set the baseline at 2019 emissions only rather than the average of both the years 2019 and 2020, it is likely that demand for (nature-based) carbon credits from CORSIA will remain low.<sup>49</sup>

New rules for international carbon markets under the UNFCCC were defined at COP26 in 2021, potentially opening opportunities for channeling forest finance in the long term. COP26 saw the finalization of the Paris Agreement Article 6 rulebook, which provides clarity on how compliance markets can contribute to meeting NDC goals as well as enhance climate ambition through voluntary cooperation. The rulebook sets the conditions for the international trading and transfer of emission reduction units by enabling two market-based mechanisms (Article 6.2 and Article 6.4). Regulations outlined so far suggest these mechanisms will be relatively accommodating for FLU projects. Unlike the Clean Development Mechanism (CDM), they do not explicitly exclude emission reductions from avoided deforestation and avoided forest conversion. Some uncertainty remains, however, over the eligibility of credits generated from emissions avoidance activities – the decision pertaining to which will be made at COP27.<sup>50</sup> Thus, while experts hope that Article 6 can become a successful mechanism for leveraging finance into FLU activities, it remains to be seen how final regulations will shape the quantity and quality of internationally traded FLU carbon credits.

## Endnotes

<sup>i</sup> NYDF Assessment Partners. (2021). *Taking stock of national climate action for forests*. <https://forestdeclaration.org/resources/taking-stock-of-national-climate-action-for-forests/>. Climate Focus calculation based on multiple sources. No one source provides an estimate of the total need for forests globally across the whole package of interventions (reducing deforestation, restoration, A/R, and sustainable forest management). The upper bound considers estimations of the finance need for reducing deforestation by 45 percent by 2050 (USD 180 billion per year) and A/R, silvopasture, mangrove, and peatland restoration (USD 280 billion per year). The lower bound is based on the lowest estimate we found of additional financing needed for forest restoration, REDD+, and forest management (USD 45–65 billion per year). However, this lower bound does not include A/R and is therefore likely an underestimate. Note that the sources used to produce this range risk overlap. See NYDF (2021) Taking stock of national climate action for forests: 2021 NYDF Assessment Report. Technical Annex. Available at <https://bit.ly/3z7Eqdi>.

<sup>ii</sup> United Nations Framework Convention on Climate Change. (2015). Adoption of the Paris Agreement. Twenty-First Session. Presented at the Conference of the Parties, Paris. <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>

<sup>iii</sup> <https://www.cdp.net/en/articles/investor/the-financial-sector-needs-to-report-on-nature-risks-and-heres-why>

<sup>4</sup> Climate Focus analysis. *Domestic finance* includes government expenditure on the agriculture and forestry sectors, in the 41 countries covered by FAOSTAT data. Cumulative 2010-2020. Note that this is likely to be a significant underestimate, given the high number of missing countries. *International finance* includes the international development finance commitments of the 142 countries reported in the OECD Creditor Reporting System database. Finance flows included are: *Agricultural development; Agricultural inputs; Food crop production; Industrial crops/export crops; Livestock; Agrarian reform; Agricultural services; Livestock/veterinary services; Forest industries*. Cumulative 2010-2020.

<sup>5</sup> Climate Policy Initiative. (n.d.). *Global Landscape of Climate Finance 2021*. <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/>.

<sup>6</sup> UN Department of Social and Economic Affairs (2021) Policy Brief #88: Financing sustainable forest management: a key component of sustainable COVID-19 recovery. Available at <https://bit.ly/3C0XqU5>.

<sup>7</sup> Climate Focus compilation of REDD+ readiness and implementation finance commitments (cumulative since 2010)—Data obtained directly from contacts, from publicly available reports, or from Climate Funds Update. Includes commitments and disbursements from NICFI, FCPF, GCF, FIP, ISFL, UN-REDD, REDD Early Movers, CBFF.

<sup>8</sup> High deforestation countries are those with an annual average deforestation rate that exceeds 30,000ha. Domestic REDD+ finance allocated in the government investment plans of 16 REDD+ countries. Climate Focus analysis of FCPF EPRDs (the 16 countries that budgeted for government expenditures). Note that investment plans cover different timeframes.

<sup>9</sup> NYDF Assessment Partners. (2021). *Taking stock of national climate action for forests*. <https://forestdeclaration.org/resources/taking-stock-of-national-climate-action-for-forests/>.

<sup>10</sup> Atmadja, S. S., Duchelle, A. E., Sy, V. D., Selviana, V., Komalasari, M., Sills, E. O., et al. (2022). How do REDD+ projects contribute to the goals of the Paris Agreement? *Environmental Research Letters*, 17(4), 044038. <https://doi.org/10.1088/1748-9326/ac5669>.

<sup>11</sup> Angelsen, A., Martius, C., Duchell, A., Larson, A., Thu Thuy, P., & Wunder, S. (2018). Conclusions: Lessons for the path to a transformational REDD+. In *Transforming REDD+: Lessons and new directions*. Center for International Forestry Research (CIFOR); Atmadja, S. S. et al. (2022). Jong, H. N. (2021, September 10). Indonesia terminates agreement with Norway on \$1b REDD+ scheme. *Mongabay Environmental News, Indonesian Forests*. <https://news.mongabay.com/2021/09/indonesia-terminates-agreement-with-norway-on-1b-redd-scheme/>.

<sup>12</sup> NYDF Assessment Partners. (2021).

<sup>13</sup> NYDF Assessment Partners. (2021).

<sup>14</sup> Korhonen-Kurki, K., Brockhaus, M., Sehring, J., Di Gregorio, M., Assembe-Mvondo, S., Babon, A., et al. (2018). What drives policy change for REDD+? A qualitative comparative analysis of the interplay between institutional and policy arena factors. *Climate Policy*, 19(3). <https://doi.org/10.1080/14693062.2018.1507897>.

<sup>15</sup> NYDF Assessment Partners. (2021).

<sup>16</sup> Climate Focus (2021).

<sup>17</sup> OECD (2022) OECD Paris Collaborative on Green Budgeting. Available at <https://www.oecd.org/environment/green-budgeting/>.

<sup>18</sup> [European Commission \(2021\) Commission Delegated Regulation \(EU\) 2021/2139 of 4 June 2021, supplementing Regulation \(EU\) 2020/852 of the European Parliament and of the Council: First delegated act on sustainable activities for climate change adaptation and mitigation objectives](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021R2139). Available at <https://bit.ly/3K1Yg4S>.

- 
- <sup>19</sup> “Colombia launches green taxonomy” (13 April 2022). *Argus Media*. Available at <https://bit.ly/3wcQ78i>.
- <sup>20</sup> See Chapter 2 in NGFS (2022) Central banking and supervision in the biosphere: An agenda for action on biodiversity loss, financial risk and system stability. Available at <https://bit.ly/3S5Nn4U>.
- <sup>21</sup> DNB (2020) Indebted to nature Exploring biodiversity risks for the Dutch financial sector. Available at <https://bit.ly/3qHhzHN>.
- <sup>22</sup> Banque de France (2021) A “Silent Spring” for the Financial System? Exploring Biodiversity-Related Financial Risks in France. Available at <https://bit.ly/3BIWUcU>.
- <sup>23</sup> Calice, Diaz Kalan, and Miguel (2021). Nature-Related Financial Risks in Brazil. Policy Research Working Paper; No. 9759. World Bank. Available at <https://bit.ly/3qFIWRr>.
- <sup>24</sup> World Bank (2022). Exploring Nature-Related Financial Risks in Malaysia. Available at <https://bit.ly/3eZPaKM>.
- <sup>25</sup> UNEP (2022) Conference on “biodiversity loss and ecosystem degradation: implications for macroeconomic and financial stability”. Available at <https://bit.ly/3dq3OSJ>.
- <sup>26</sup> See e.g. NGFS (2022) Central banking and supervision in the biosphere: An agenda for action on biodiversity loss, financial risk and system stability. Available at <https://bit.ly/3qH2eHh>; Climate Focus (2021), Shifting Finance Toward Sustainable Land Use: Aligning public incentives with the goals of the Paris Agreement, Available at <https://feldactiontracker.org/green-finance>
- <sup>27</sup> WWF (2022) Call to Action to Ensure Transition to a Net Zero and Nature Positive Economy. Available at [https://wwfint.awsassets.panda.org/downloads/wwf\\_gfri\\_call\\_to\\_action\\_2022\\_sept\\_28.pdf](https://wwfint.awsassets.panda.org/downloads/wwf_gfri_call_to_action_2022_sept_28.pdf).
- <sup>28</sup> This value covers the 24 countries that are ready for national- or medium-scale IPLC projects. See Rights and Resources Initiative (2021) Scaling-Up the Recognition of Indigenous and Community Land Rights: Opportunities, Costs and Climate Implications. Available at <https://bit.ly/3yFU4CJ>.
- <sup>29</sup> Between 2019-2020, USD 632 billion in climate finance was provided globally. See Climate Policy Initiative (2021) Global Landscape of Climate Finance 2021. Available at <https://bit.ly/3NqOSdz>.
- <sup>30</sup> Rainforest Foundation Norway (2021) Falling short: Donor funding for Indigenous Peoples and local communities to secure tenure rights and manage forests in tropical countries (2011–2020). Available at <https://bit.ly/3Quyr0q>.
- <sup>31</sup> Tropical Forest Alliance 2020 (2017). The Role of the Financial Sector in Deforestation-Free Supply Chains. Available at <https://bit.ly/3Bp2Nub>.
- <sup>32</sup> Climate Focus (2017). Progress on the New York Declaration on Forests: Finance for Forests - Goals 8 and 9 Assessment Report. Available at: <https://forestdeclaration.org/resources/finance-for-forests/>
- <sup>33</sup> United Nations Environment Programme (2021) State of Finance for Nature. Available at <https://bit.ly/3dhkxiq>.
- <sup>34</sup> NYDF Assessment Partners (2021) Goal 8 assessment: Providing finance for forest action. Available at <https://forestdeclaration.org/goals/goal-8/>.
- <sup>35</sup> Desanlis, H., Matsumae, E., Roeyer, H., Yazaki, A., Ahmad, M., & Menon, S. (2021) Funding trends 2021: Climate change mitigation philanthropy. ClimateWorks Global Intelligence. <https://www.climateworks.org/report/funding-trends-2021-climate-change-mitigation-philanthropy/>
- <sup>36</sup> Heinrich Böll Stiftung (2021) Meat Atlas; Facts and figures about the animals we eat. Available at <https://bit.ly/3eVmsdU>.
- <sup>37</sup> Global Canopy (2022) Forest 500 Annual Report. Available at <https://forest500.globalcanopy.org/>.
- <sup>38</sup> <https://sciencebasedtargets.org/net-zero>
- <sup>39</sup> Schallert, B., Stevenson, M., Weber, C., Farsan, A., Nielsen, J., Ponce de León, P., et al. (2020). *Beyond Science-Based Targets: A Blueprint for Corporate Action on Climate and Nature*. [https://wwfint.awsassets.panda.org/downloads/beyond\\_science\\_based\\_targets\\_\\_a\\_blueprint\\_for\\_corporate\\_action\\_on\\_climate\\_and\\_nature.pdf](https://wwfint.awsassets.panda.org/downloads/beyond_science_based_targets__a_blueprint_for_corporate_action_on_climate_and_nature.pdf).
- <sup>40</sup> Climate Focus calculation based on multiple sources: see NYDF (2021) Taking stock of national climate action for forests: 2021 NYDF Assessment Report. Technical Annex. Available at <https://bit.ly/3z7Eqdi>.
- <sup>41</sup> Ecosystem Marketplace (n.d.). Dashboard data. Retrieved in July 2022 from <https://data.ecosystemmarketplace.com/>
- <sup>42</sup> Climate Focus: The Voluntary Carbon Market Dashboard. Retrieved in July 2022 from <https://bit.ly/3MU2R97>.
- <sup>43</sup> Carbon Pulse (18 July 2022) More than 100 mln sovereign forest credits set to reach VCM by autumn. Available at <https://carbon-pulse.com/166413/>.
- <sup>44</sup> Climate Focus: The Voluntary Carbon Market Dashboard. Retrieved in July 2022 from <https://bit.ly/3MU2R97>.

---

<sup>45</sup> Climate Focus: The Voluntary Carbon Market Dashboard. Retrieved in July 2022 from <https://bit.ly/3MU2R97>.

<sup>46</sup><sup>46</sup> Estimate price range based on price data from: Ecosystem Market Place (2021) Data - issuances and retirements by category. Retrieved on September 2022 from <https://data.ecosystemmarketplace.com/>; World Bank (2022) State and Trends of Carbon Pricing 2022. Available at <https://bit.ly/3QpjWLO>.

<sup>47</sup> See, e.g. Bhat (2022). Carbon needs to cost at least \$100/ton now to reach net zero by 2050: Reuters poll. Reuters. Available at <https://reut.rs/3R3lqI3>; High-Level Commission on Carbon Prices (2017). Report of the High-Level Commission on Carbon Prices. Available at <https://bit.ly/3dhJmLV>.

<sup>48</sup> World Bank (2022) State and Trends of Carbon Pricing 2022. Available at <https://bit.ly/3QpjWLO>.

<sup>49</sup> World Bank (2022) State and Trends of Carbon Pricing 2022. Available at <https://bit.ly/3QpjWLO>.

<sup>50</sup> Climate Finance Innovators (2022) COP26 digest: The significance of Article 6 and CDM transition outcomes for Africa. Available at <https://bit.ly/3BpjDcm>.