



Progress on the New York Declaration on Forests

Finance for Forests

Goals 8 and 9 Assessment Report

October 2017

forestdeclaration.org

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Forewords



The New York Declaration on Forests (NYDF) outlines 10 ambitious global goals to protect and restore forests and end forest loss. If realized, these goals have the potential to reduce annual carbon emissions by 4.5 to 8.8 billion tons of CO₂e per year, roughly comparable to the annual

emissions of the United States. Engaging the diverse group of more than 190 governments, companies, indigenous peoples, and civil society organizations that have endorsed the NYDF to date will be key to the successful achievement of these goals, as will be identifying sustainable sources of financing to support and reward their efforts over the long term.

Three years after the launch of the NYDF and with milestone target dates fast approaching, the need for robust accountability and reporting mechanisms is clearer than ever. The NYDF Progress Assessment is a crucial part of this picture, and this year's Assessment Report, with its focus on the financing for forest action, is particularly welcome.

Just as the NYDF partnership recognizes that no one sector can address deforestation singlehandedly, a diversity of approaches and sources of finance will be necessary to fund the actions crucial to protecting the world's forests. Although much remains to be done, we are seeing promising advances in new and innovative sources of financing for forests.

The recent adoption by the Green Climate Fund Board of terms of reference for a REDD+ Results-Based Payments pilot program represents a major step forward in innovative financing for forests.

In Ecuador, the United Nations Development Programme (UNDP) is supporting the implementation of a National REDD+ Action Plan, which incorporates the design of new credit lines for deforestation-free producers with public banks, offering the prospect of using REDD+ finance to leverage significant additional funds. Furthermore, the recently launched Global Environment Facility Good Growth Partnership seeks to boost investment and economic incentives for sustainable production throughout key global commodity supply chains.

Complementing the work of the NYDF Assessment Partners, 2017 will see the launch of the NYDF Global Platform, dedicated to supporting and accelerating achievement of the NYDF goals. With the support of the Government of Germany, the NYDF Global Platform will be convened by UNDP and will be informed and guided by the findings of the NYDF Progress Assessment.

This new Global Platform is intended to fill an important gap in the multi-stakeholder engagement and collaboration necessary to achieve the goals of the NYDF by responding to endorsers' requests for a dedicated, multi-stakeholder platform to re-invigorate political endorsement of the NYDF, to facilitate coordination and communication, to share best practices, resources, and lessons, and to support ongoing monitoring of progress.

UNDP is committed to building on its role in supporting the NYDF and its endorsers, and assisting all partners and stakeholders in achieving sustainable and equitable transformation of forest landscapes.

Nik Sekhran

Director, Sustainable Development
United Nations Development Programme



Without fully incorporating the land sector, there is simply no solution to the climate challenge. This NYDF Assessment Report offers an important opportunity to reflect on progress made and on the actions still needed to reach the core objective of stopping deforestation by 2030.

Unfortunately, we do have to acknowledge that we are not on track to reach our interim milestone of halving deforestation by 2020, given the recent record high in forest loss. This places even more importance on formulating our agenda beyond 2020 if we are to achieve our ambitious goals.

The focus of this year's report is on the provision of finance to reduce greenhouse gas emissions from forests, as set out in Goals 8 and 9 of the NYDF. It finds that roughly USD 20 billion of targeted finance committed since 2010 for protecting and mitigating emissions from forests falls short of what is required to achieve our objective of stopping deforestation by 2030. It is also sobering to see the greater flows of mainstream finance that have an impact on forests, in areas such as agricultural expansion. The report highlights the need to align mainstream finance with forest and climate goals to reduce its impact on forests.

There are some great examples of successful initiatives highlighted in the report: for example, the intensification of beef production in Brazil; the policy reform to support climate-smart forestry in Mexico; and innovative policy to support reforestation in India. Carbon finance is beginning to flow too, and more than 50 countries are now in the pipeline for results-based payments from

the World Bank's Forest Carbon Partnership Facility. The first carbon payment agreements are likely to be signed in 2018 – with the Democratic Republic of the Congo and Costa Rica.

It is inspiring to see the commitments from some of the largest consumer goods companies to reduce deforestation from their supply chains. And it is encouraging that major financial institutions, including HSBC and the Norwegian Sovereign Wealth Fund, have assessed deforestation risk in their investment portfolios and have made important decisions to divest in the past 12 months. Lastly, new investment funds, such as IDH's 'andgreen.fund,' have the potential to stimulate broader shifts in commodity supply chains through the provision of blended finance.

If we are to achieve success in reaching zero deforestation by 2030, then we need to build momentum and create an integrated approach to financing the transition to sustainable land use. To do this, we will need strategies that both halt the expansion of the forest frontier and deliver investment in intensifying agricultural and forestry production to meet the world's growing demand for food, fiber, and fuel.

This report informs the development of a roadmap and highlights the importance of engaging financial markets to deliver the overall NYDF goals. As we approach 2020, we need renewed motivation, and there are examples that can inspire us and encourage us to move a lot faster – and on a global scale.

Justin Adams

Global Managing Director, Lands
The Nature Conservancy

Executive Summary

In September 2014, the New York Declaration on Forests (NYDF) outlined 10 goals that provide endorsers – including countries, subnational governments, companies, indigenous groups, and NGOs – with ambitious global targets to protect forests and end natural forest loss by 2030. In 2015, the first edition of the NYDF Progress Assessment both proposed a framework and respective indicators for measuring progress toward all 10 goals and offered an initial assessment on the status of progress toward their achievement. Since then a coalition of 15 civil society and research organizations, the NYDF Assessment Partners, annually publishes updates on progress toward the NYDF goals. In addition to summarizing new data and findings around the established indicators, the Progress Assessment also provides an in-depth analysis of one or two selected goal(s).

This year's focus report is dedicated to an assessment of forest finance – Goals 8 and 9. The NYDF Assessment Partners have developed a framework to support this assessment.

Goal 8: Provide support for the development and implementation of strategies to reduce forest emissions

Goal 9: Reward countries and jurisdictions that, by taking action, reduce forest emissions – particularly through public policies to scale-up payments for verified emission reductions and private-sector sourcing of commodities

KEY MESSAGES

Support for the development and implementation of strategies to reduce forest emissions remains insufficient. The magnitude of finance is highly disproportionate to the investment needs and the mitigation potential of the forest sector. Finance for forests in deforestation countries accounts for just over one percent of global mitigation-related development funding. Yet, tropical forests can provide up to 30 percent of the climate change mitigation needed to meet the objectives of the Paris Agreement.

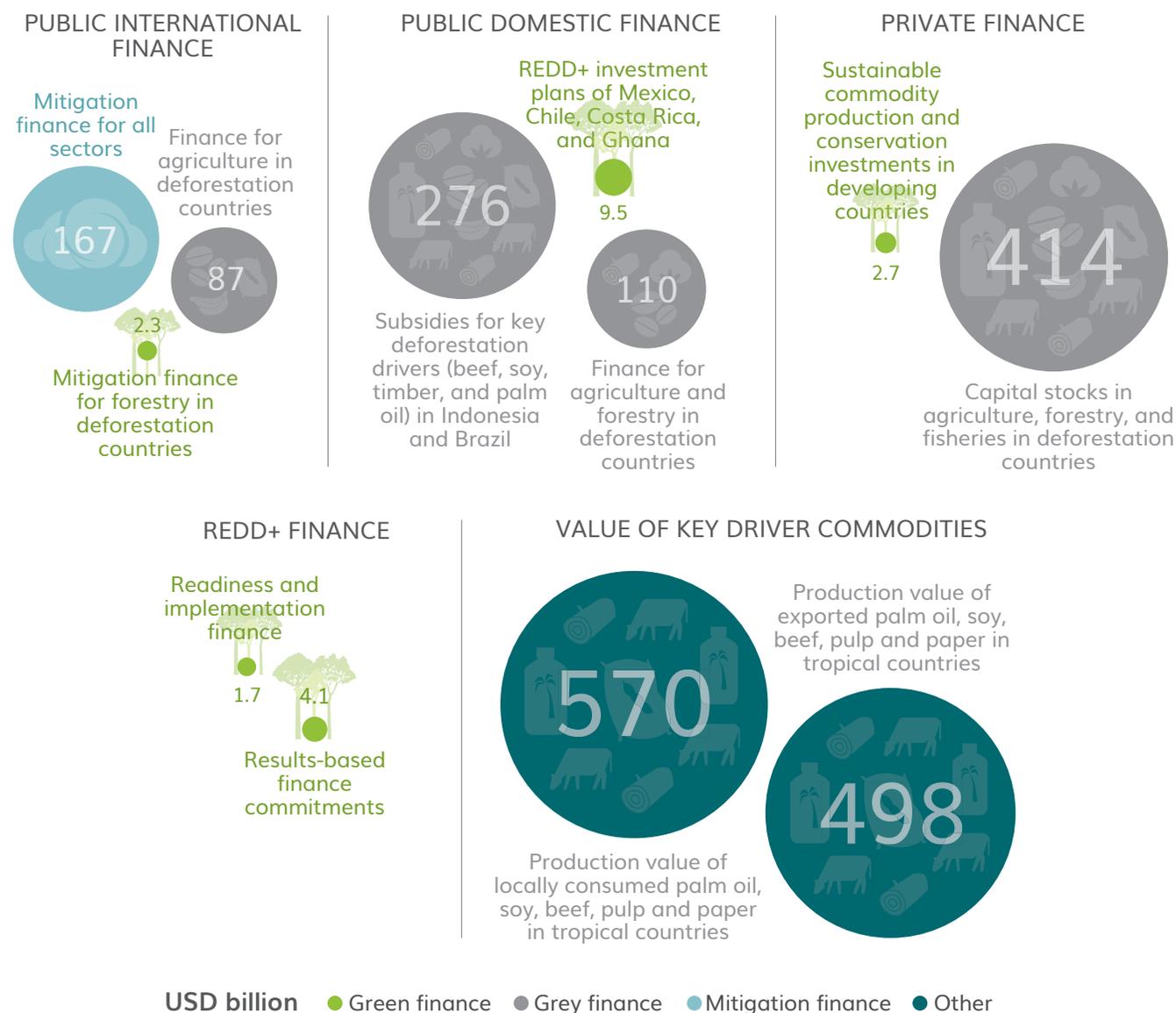
In our assessment, we captured the flows of “green finance” aligned with forest and climate goals, and compared them with “grey finance,” which has an unclear but potentially negative impact on forests. The report provides a limited picture of the state of forest and climate finance, but despite data gaps, the message is clear:

While there are promising developments, total finance for Goals 8 and 9 - roughly USD 20 billion since 2010 - is insufficient and does not reflect the importance of forests as part of the climate solution. The amount is marginal compared to the USD 777 billion¹ in “grey finance” for the land sector that influences forests and is not clearly aligned with forest and climate goals. While not a measure of financial support or investment, the production value of the four key agricultural commodities in tropical countries exceeds USD 1 trillion, illustrating the large economic incentives in the sectors that drive deforestation. Figure 1 provides an overview of the various sources of finance captured and their relative magnitudes.

Our findings show that more finance is required and that the transition to zero deforestation can be achieved only with a dramatic shift away from traditional investments in the drivers of deforestation toward those in sustainable agriculture and forestry. Only the coordinated and strategic use of finance can enable this transition by targeting the vast existing flows of investment that have an influence on forests. Addressing deforestation and moving toward a sustainable land-use sector also offers significant benefits and can contribute to higher returns, rural economic development, and recaptured government revenues.

¹ This includes development finance to agriculture in deforestation countries, subsidies in key deforestation drivers in Indonesia and Brazil, and capital stocks in agriculture, forestry and fisheries in deforestation countries.

Figure 1: Total green and grey finance flows captured by this report (since 2010)



PUBLIC INTERNATIONAL FINANCE

- Mitigation finance for all sectors and for forestry in deforestation countries: Climate Focus analysis based on mitigation-related development finance commitments retrieved from the Organisation for Economic Co-operation and Development (OECD) website. Cumulative 2010-2015.
- Finance for agriculture in deforestation countries: Climate Focus analysis based on development finance commitments retrieved from the OECD Creditor Reporting System database. Cumulative 2010-2015.

PUBLIC DOMESTIC FINANCE

- Government investment plans of four REDD+ countries (Mexico, Costa Rica, Chile, and Ghana): based on Climate Focus analysis of Forest Carbon Partnership Facility (FCPF) Emission Reduction Program Documents. Investment plans cover different timeframes ranging from the next 4 to 10 years..
- Subsidies for deforestation drivers in Indonesia and Brazil: McFarland, W., Whitley, S., & Kissinger, G. (2015). *Subsidies to key commodities driving forest loss*. [Working paper]. London, United Kingdom: Overseas Development Institute; Annual estimate multiplied by 6.
- Finance for agriculture and forestry in deforestation countries: Climate Focus analysis of FAOSTAT data on government expenditure for the agriculture and forestry sectors retrieved from <http://www.fao.org/faostat/en/#data/IG>. Cumulative 2010-2015.

PRIVATE FINANCE

- Sustainable commodity production and conservation investments: Climate Focus compilation based on Hamrick, K. (2016). *State of private investment in conservation 2016. A landscape assessment of an emerging market*. Washington, DC: Ecosystem Marketplace. Cumulative since 2004, however financing prior to 2009 only makes up a minor share. This estimate includes capital commitments in Africa, Asia, and Latin America.

- Capital stocks in deforestation countries: Climate Focus analysis based on FAOSTAT data for gross capital stocks in agriculture, forestry and fishing, retrieved from <http://www.fao.org/faostat/en/#data/CISP>. Cumulative 2010-2014. Gross capital stocks are a proxy for private investment and provide an estimate of the value of assets held by the producer. See http://fenixservices.fao.org/faostat/static/documents/RM/CS_e.pdf for additional details.

REDD+ FINANCE

- Readiness and implementation finance: Estimate combines multilateral and bilateral finance. Multilateral: Climate Focus compilation based on *Climatefundsupdate.org* data. Cumulative commitments since 2010. Bilateral finance: Climate Focus analysis based on FCPF Annual Report (2017) presenting the results of a survey conducted in 2017 with countries participating in the FCPF readiness process. FCPF Carbon Fund Emission Reduction Program Documents retrieved from the FCPF website: <https://www.forestcarbonpartnership.org/redd-countries-1>. Assumed to be cumulative.
- Results-based finance commitments: Climate Focus analysis based on data shared by Norway's International Climate and Forest Initiative and the German REDD Early Mover Program, the BioCarbon Fund Initiative for Sustainable Forest Landscapes and the Forest Carbon Partnership Facility Carbon Fund commitments retrieved from funds' official websites. Cumulative since 2010.

VALUE OF KEY DRIVER COMMODITIES

- Climate Focus compilation based on estimates from Tropical Forest Alliance 2020. (2017). *The role of the financial sector in deforestation-free supply chains*. Geneva, Switzerland: World Economic Forum. Annual estimate for 2015 multiplied by 6.

GOAL 8: Provide support for the development and implementation of strategies to reduce forest emissions

CRITERION 8.1: Public support for the development and implementation of strategies to reduce forest emissions

- International public sources of green development finance remain small and have not grown over the last years. Out of USD 167 billion committed by developed countries and multilateral institutions for mitigation-related development finance, only USD 3.6 billion was allocated to the forestry sector. Of this, 65 percent – or USD 2.3 billion – went to key deforestation countries. The same deforestation countries received USD 87 billion in development finance for agriculture, the sector most responsible for tropical forest loss. Countries also received USD 1.7 billion in targeted finance for the preparation and implementation of REDD+.² This funding has helped to strengthen capacities, policy dialogue, and strategy development and supported implementation pilots. Funding is, however, widely dispersed, with many countries receiving small amounts of support.
- Several countries plan to invest substantial amounts of green finance in their REDD+ programs. In the case of several middle-income countries, planned investments exceed international contributions. We identified a total domestic commitment of USD 10 billion planned for the next 4 to 10 years, with the largest share being invested by Mexico and Costa Rica. As with international sources, green finance is, however, only a fraction of subsidies in the sectors that drive deforestation. Cumulative government expenditures in recent years in the agriculture and forestry sectors – grey finance – in deforestation countries amounts to over USD 110 billion. This is still much more than the planned green finance. As agriculture is the backbone of many developing country economies, governments also invest heavily in subsidies to the sector, including to key driver commodities. Indonesia and Brazil invest roughly USD 276 billion in subsidies for four commodities – soy, palm oil, beef, and timber.

CRITERION 8.2: Private investment targeted at reducing forest emissions

- There has been important growth in the impact investment market relevant to forests. Seeking environmental and social benefits in addition to returns, cumulative commitments by investors are estimated at USD 2.7 billion for Latin America, Asia, and Africa.

² REDD+ stands for efforts to reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancements of forest carbon stocks.

- As with public sources, green private investment is only a fraction of grey finance in the sectors that drive deforestation. The UN Food and Agriculture Organization (FAO) estimates place the total value of private investment (capital stocks) in “business as usual” farming, forestry, and fisheries sectors in deforestation countries in recent years at a cumulative USD 414 billion.
- A number of financial institutions are adopting policies that address deforestation risks, but these policies need to be strengthened, as few of these are mandatory, consistently applied, or independently monitored.
- The public sector has a range of tools that can provide an attractive sustainable investment environment for the private sector. Blended finance instruments, for example, offer ways to catalyse new investments of private capital in sustainable activities. Pilot initiatives in the context of public-private partnerships prove the viability of sustainable land use investments.

GOAL 9: Reward countries and jurisdictions that, by taking action, reduce forest emissions – particularly through public policies to scale-up payments for verified emission reductions and private-sector sourcing of commodities

CRITERION 9.1: Public payments for verified emission reductions

- Rather than paying directly for actions that lead to emission reductions, results-based REDD+ payments incentivize countries and jurisdictions to take these actions. Such payments are only beginning to reward programs that reduce forest emissions. The current magnitude of incentives remains small compared to finance needs.
- Commitments by multilateral and bilateral institutions for results-based REDD+ finance amount to more than USD 4.1 billion. In a bilateral agreement with Brazil, Norway made the largest disbursement of results-based REDD+ finance – more than USD 1.1 billion out of USD 2.6 billion in commitments to Brazil and other countries. The German REDD Early Mover Program, funded by Germany, Norway, and the UK, has mobilized commitments of USD 306 million and already made disbursements to Colombia and the Brazilian state of Acre.
- The Forest Carbon Partnership Facility Carbon Fund has mobilized close to USD 686 million in results-based finance from eleven donors. No finance has been disbursed yet, but several countries are close to entering agreements. The donors of the BioCarbon Fund’s Initiative for Sustainable Forest Landscapes earmarked USD 130 million for results-based REDD+ finance.
- For the future of result-based REDD+ payments, the Green Climate Fund (GCF) will play an important role. Based on a recent board decision, the GCF approved a new USD 500 million pilot program for results-based REDD+ finance.

CRITERION 9.2: Support for supply chain efforts to incentivize reduced forest emissions

- Though these approaches are still nascent, jurisdictional and preferential sourcing initiatives provide an opportunity to realize zero-deforestation commitments. By bringing actors from different sectors together, these initiatives avoid potential leakage and efficiently scale up implementation.
- Of the 34 jurisdictions with active programs, the geographical locations are spread quite evenly between Asia, Latin America, and Africa.
- Support for supply-chain efforts to incentivize reduced forest emissions is gaining traction. Various initiatives involving different stakeholders help facilitate jurisdictional and landscape approaches.

Introduction

Assessing Progress toward the NYDF Goals

A total of 191 governments, companies, and non-governmental organizations (NGOs) have endorsed the New York Declaration on Forests (NYDF), committing individually and jointly to achieve 10 goals that seek to protect, conserve, and enhance forests (Box 1). The Declaration sets an ambitious target to cut natural forest loss in half by 2020 and end it by 2030. It also calls for restoring 350 million hectares of degraded and deforested lands by 2030, supporting the private sector in eliminating deforestation in agricultural commodity supply chains, respecting the rights of forest peoples, and providing financial support to reduce greenhouse gas (GHG) emissions related to deforestation and forest degradation.¹

Box 1: The 10 NYDF Goals

Goal 1. At least halve the rate of loss of natural forests globally by 2020 and strive to end natural forest loss by 2030

Goal 2. Support and help meet the private-sector goal of eliminating deforestation from the production of agricultural commodities such as palm oil, soy, paper, and beef products by no later than 2020, recognizing that many companies have even more ambitious targets

Goal 3. Significantly reduce deforestation derived from other economic sectors by 2020

Goal 4. Support alternatives to deforestation driven by basic needs (such as subsistence farming and reliance on fuel wood for energy) in ways that alleviate poverty and promote sustainable and equitable development

Goal 5. Restore 150 million hectares of degraded landscapes and forestlands by 2020 and significantly increase the rate of global restoration thereafter, which would restore at least an additional 200 million hectares by 2030

Goal 6. Include ambitious, quantitative forest conservation and restoration targets for 2030 in the post-2015 global development framework, as part of new international sustainable development goals

Goal 7. Agree in 2015 to reduce emissions from deforestation and forest degradation as part of a post-2020 global climate agreement, in accordance with internationally agreed rules and consistent with the goal of not exceeding 2°C warming

Goal 8. Provide support for the development and implementation of strategies to reduce forest emissions

Goal 9. Reward countries and jurisdictions that, by taking action, reduce forest emissions – particularly through public policies to scale-up payments for verified emission reductions and private-sector sourcing of commodities

Goal 10. Strengthen forest governance, transparency, and the rule of law, while also empowering communities and recognizing the rights of indigenous peoples, especially those pertaining to their lands and resources

¹ United Nations. (2014). *Forests: Action statements and action plans*. Climate Summit 2014.

The NYDF provides an integrated and global perspective for protecting and restoring forests. The Declaration combines goals expressed in a number of other pledges and agreements, such as the Paris Agreement on Climate Change, the Bonn Challenge, the Aichi Biodiversity Targets, and supply chain commitments by private companies. Some of the NYDF goals pertain directly to the reduction and eventual elimination of deforestation (Goals 1 to 3), while others promote sustainable and equitable development (Goal 4), and enhanced forest governance, transparency, and the rule of law (Goal 10). Goal 5 formulates precise, time-bound reforestation objectives, whereas Goals 6 and 7 call for forests to be integrated into the international sustainability and climate agenda. Finally, Goals 8 and 9 relate to financing strategies, and to rewarding countries and jurisdictions that reduce forest loss with results-based finance and preferential sourcing from private sector companies.

Since 2015, a coalition of 15 NGOs, research organizations, and think tanks – the NYDF Assessment Partners – has monitored progress toward implementing and achieving the goals of the NYDF. The assessment is conducted in two separate work streams: a continuous assessment toward progress of all 10 NYDF goals and an annual in-depth assessment of one or two thematically linked goals. This 2017 deep-dive report focuses on the finance-related goals of the NYDF: Goals 8 and 9. The Declaration calls for support for the development and implementation of strategies that reduce emissions under Goal 8 and, under Goal 9, for rewarding countries and jurisdictions that have achieved fully measured, reported, and verified emission reductions through payments and sourcing of commodities.

This report assesses the availability and discusses the opportunities for finance aligned with forest and climate goals by providing a progress assessment toward Goals 8 and 9 and was developed by the NYDF Assessment Partners. We begin by providing some background on the role of reducing emissions from deforestation in combating climate change and on the need for finance to support this. The second chapter of the report is dedicated to describing the scope and methodology that guides our findings. The third chapter, which constitutes the core of the report, we present our findings; the fourth chapter provides a conclusion. A detailed list of definitions can be found in the Technical Annex (available for download at forestdeclaration.org).

Halting Deforestation is Essential to Meeting Climate Goals

The climate mitigation potential of forests is large but underappreciated: stopping and reversing tropical deforestation could avoid and remove up to 24 to 30 percent of total gross greenhouse gas emissions.² Addressing forest loss is therefore a key mitigation strategy for reaching the goals of the Paris Agreement. To have a 50 percent chance of limiting global warming to 1.5°C, emissions from the land sector must become net zero by 2050.³ To achieve this, deforestation – currently responsible for 2,270 million metric tons of carbon dioxide (MtCO₂) per year⁴ – will have to stop as soon as possible. At the same time, to compensate for emissions from agricultural production, carbon storage in managed and restored forests will need to increase substantially.⁵ Recognizing the importance of the sector, the Paris Agreement dedicates a full article to land use and forests. It establishes a legal framework for actions to reduce forest emissions (Box 2) and encourages parties to make use of the full range of ecosystem-based mitigation options.

A call to provide finance for the protection and sustainable use of forest is anchored in the international agenda for climate and sustainable development. The call extends to domestic, international, public, and private finance. The Paris Agreement asks developed countries to mobilize finance in ways that progress beyond previous efforts and encourages voluntary support from other

² Goodman, R. C., & Herold, M. (2014). *Why maintaining tropical forests is essential and urgent for a stable climate*. (Forest and Climate Paper Series No. 385). Washington, DC: Center for Global Development.

³ Rogelj, J., Schaeffer, M., Friedlingstein, P., Gillett, N.P., van Vuuren, D.P., Riahi, K., et al. (2016). Differences between carbon budget estimates unraveled. *Nature Climate Change*, 6(3), 245–252; Rockström, J., Gaffney, O., Rogelj, J., Meinshausen, M., Nakicenovic, N., & Schellnhuber, H. J. (2017). A roadmap for rapid decarbonization. *Science* 355(6331), 1269–1271

⁴ Zarin, D.J., Harris, N.L., Baccini, A., Aksenov, D., Hansen, M.C., Azevedo-Ramos, C., et al. (2016). Can carbon emissions from tropical deforestation drop by 50% in 5 years? *Global Change Biology*, 22(4), 1336–1347.

⁵ Rogelj et al. (2016); Rockström et al. (2017).

parties. The decision providing guidance to the Agreement “strongly urges developed country Parties to scale up their level of financial support”,⁶ emphasizes the need for REDD+ finance, and encourages coordination between public and private and bilateral and multilateral financial institutions. In addition to calling for an increase in finance, parties of the Paris Agreement also agreed to make all financial flows consistent with a pathway toward low greenhouse gas emissions and climate-resilient development.⁷ The need for finance to protect forests, ecosystems, and biodiversity is echoed in other international goals and agreements. Both the Sustainable Development Goals⁸ and the Addis Ababa Action Agenda⁹ call for significant financial support from private and public sources. All three agreements also recognize the role of the private sector in mobilizing assets for climate and sustainable development goals.¹⁰

Box 2: Forests in the Paris Agreement on Climate Change

Through references to decisions previously adopted under the United Nations Convention on Climate Change (UNFCCC), Article 5 anchors the legal framework for Reducing Emissions from Deforestation and forest Degradation (REDD+) in the text of the Paris Agreement:

*Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches.**

* United Nations Framework Convention on Climate Change (2015). *Adoption of the Paris Agreement, Article 5, 21st Conference of the Parties*. Paris: United Nations.

The combined ambition of all countries’ national action plans is significant and has the potential to account for 10 to 30 percent of total mitigation in the land use sector by 2030, but is far from sufficient to reach the 1.5°C goal of the Paris Agreement.¹¹ In their national action plans submitted to the UNFCCC, many developing countries have set ambitious goals to reduce land-use emissions. One hundred and sixteen countries submitted Nationally Determined Contributions (NDCs) that include quantified commitments relevant to land use.¹² Ninety-one of these countries plan to adopt an economy-wide or multi-sector target that includes the land-use sector, while 20 plan only for a specific emissions target on land use, and five adopt both. There are also 63 countries without an emissions target or action on land use.¹³

The achievement of NDCs and the ambition of future NDCs of developing countries depends, in part, on the availability of finance. Achieving the 1.5°C goal in the land sector calls for a transformation of our landscapes, agricultural systems, and diets. The changes that need to be implemented require commitment of all sectors of society. The ability of a country to achieve its NDC depends on a positive

⁶ UNFCCC Decision 1/CP 21, para 115.

⁷ United Nations Framework Convention on Climate Change (2015).

⁸ United Nations Department of Economic and Social Affairs. (n.d.). *Sustainable Development Goals*.

⁹ United Nations. (2015). *Addis Ababa Action Agenda*.

¹⁰ Watson, C. (2016). *Financing our shared future. Navigating the humanitarian, development and climate finance agendas* [Policy brief]

¹¹ Forsell, N., Turkovka, O., Gusti, M., Obersteiner, M., den Elzen, M., & Havlik, P. (2016). Assessing the INDC’s land use, land use change, and forest emission projections. *Carbon Balance and Management*, 11(1); Grassi, G., House, J., Dentener, F., Federici, S., den Elzen, M., & Penman, J. (2017). The key role of forests in meeting climate targets requires science for credible mitigation. *Nature Climate Change* 7(3), 220-226.

¹² Action plans to reach GHG emission reductions that all signatories to the UNFCCC were asked to publish in the lead-up to the 2015 United Nations Climate Change Conference in Paris.

¹³ Climate Focus analysis based on United Nations Framework Convention on Climate Change. (n.d.). *NDC registry (interim)*.

correlation between the costs of planned policies and the ability to mobilize finance. Costs need to be lower than the amount of finance a country can mobilize nationally or internationally. While some upper-middle-income countries (e.g. Brazil, China, Mexico) already invest and mobilize domestic resources for deforestation and climate policies, lower-income countries depend on international support to take action. Many lower-middle-income countries (e.g. India, Indonesia, Papua New Guinea) are priority areas for reducing deforestation and for peatland conversion. However, fulfilling these commitments will be largely dependent on these countries receiving international financing and technical support. Low-income countries (e.g. Democratic Republic of Congo (DRC), Myanmar, Madagascar) lack access to finance for mitigation actions. International support will be required to help fulfill commitments in these priority countries.

Financing Forests and Climate Change Mitigation

Achieving international forest goals requires substantial public and private investments to address the drivers of deforestation, and to manage and restore forests sustainably. Improving the environmental impact of our landscapes, agricultural systems, and diets requires profound changes to economic and legal systems. Without enforcement and compensation mechanisms, forests will continue to be worth more to individual landowners cleared than standing – especially in the short term. Estimates of how much finance is needed to protect forests vary widely, from several billion to several hundred billion US dollars annually, depending on the type of costs included and the degree of investment considered (Box 3).

Although new funds will be required, the transition to sustainable land use can only be achieved with a dramatic shift of finance – from investments that lead to deforestation to more sustainable approaches. The main challenge lies in shifting the trillions of dollars of existing investments into agricultural practices that drive deforestation and unsustainable forestry toward land-based investments that increase yields sustainably and protect natural landscapes. This requires a re-tooling of policies and investment instruments as well as a re-alignment of strategic priorities within and among institutions. Private investors and lenders will have to strengthen their environmental, social, and governance (ESG) policies and promote responsible investment. The public sector will need to adopt policies that steer investments and the private sector toward sustainable practices. A successful shift of finance toward sustainable land use would require:

- The strengthening of forest institutions and governance, in particular law enforcement, land titling, and combatting of corruption, as well as land-use planning
- The planning and implementation of policies that address the drivers of deforestation by improving land use and reducing pressure on forests
- Regulatory and investment incentives for communities, farmers, and private actors that lead to a more sustainable use of land

Smart subsidies can provide important transitional support toward sustainable land use. Agricultural subsidies can have significant negative effects, particularly if they are trade-distorting or undermine incentives for investment in developing countries. Distorting subsidies add to other problems faced by farmers in developing countries, including a lack of access to markets and low productivity caused by explicit and implicit taxation of agriculture, weak infrastructure, and low investment.¹⁴ However, well-designed subsidies are essential instruments for pushing existing financial flows toward less impactful and more sustainable activities, while mobilizing new funding for scaled-up private investment into actions that protect forests and contribute to sustainable landscapes.

¹⁴ Campbell, B., Mann, W., Meléndez-Ortiz, R., Streck, C., & Tennigkeit, T. (2011). *Agriculture and climate change: A scoping report*. Meridian Institute: Washington, DC.

Box 3: Financing needs for sustainable land use

Costs of halting deforestation include finance for activities including capacity building, policy support, and the building of institutional structures and infrastructure. Estimates that assess the costs of a deforestation-free economy differ widely and depend highly on context, timing, and instrument mix (Table 1).^{*} Opportunity costs – including the potential income lost in the transition to the production of deforestation-free commodities – of land use are a common, albeit imperfect, proxy for assessing the financial needs linked to reduced deforestation. Furthermore, the direct financing needs to meet the demands of deforestation-free production present a significant investment opportunity.[†] Strategic and financial investors can benefit in the long run by engaging with sustainable supply-chain financing early in the transition. Investment needs include estimates of the fixed and working capital needed to meet the future production requirements sustainably, and trade financing needs based on estimates of expected export values and the assumed role of finance in trade. Most of these costs would be amenable to private sector participation, as there is the potential for significant returns on investment.

Table 1: Annual estimates of financing needs related to a shift toward climate-friendly landscapes[‡]

COST TYPE	RANGE	DESCRIPTION
Opportunity costs	USD 20 per hectare or USD 5 to 60 billion	Estimates range from the opportunity cost of land foregoing deforestation in key tropical forested countries to the financing needed to provide sufficient economic incentives to counter the incentives for deforestation globally through REDD+ projects and direct financial transfer payments required to achieve a 50 percent reduction in global deforestation by 2020.
Capacity building	USD 2 to 3 billion	Finance estimates for capacity building activities in the forest sector to carry out REDD+ projects in high-risk areas.
Implementation & Enabling environment	USD 0.4 to 233 billion per year	Financing needs range from estimates for a 10 percent reduction in global deforestation by 2030 to complete agricultural sector transformation to deforestation-free commodity production globally by 2020.

^{*}A detailed breakdown of estimates, descriptions, and sources can be found in the Technical Annex.

[†]Tropical Forest Alliance 2020. (2017). *The role of the financial sector in deforestation-free supply chains*. Geneva, World Economic Forum.

[‡]Details and references are listed in the Technical Annex.

A successful transition toward sustainable land use depends on the use of complementary financial instruments and policies. No single strategy will be sufficient to support institutions and public policies, steer investment, and remove perverse incentives. Countries will have to rely on integrated financial strategies to support their specific climate and forest strategies. For example, Brazil's reduction in deforestation between 2005 and 2013 was the result of a combination of command-and-control policies, financial incentives, and voluntary agreements.¹⁵ Similarly, Ecuador's REDD+ Action Plan to reduce emissions from the land sector is co-financed primarily by the Green Climate Fund (GCF) and the national Ministries of Environment and Agriculture, and aims to encourage loans for sustainable farming practices and promote tax incentives for activities supporting REDD+.¹⁶ The project aims to support the Action Plan through four components: investing in enabling policies, implementing financial and economic incentives in non-forest areas to promote deforestation-free

¹⁵ Moutinho, P., Guerra, R., & Azevedo-Ramos, C. (2016). *Achieving zero deforestation in the Amazon: What is missing?* Assunção, J, Gandour, C., & Rocha, R. (2015). *Deforestation slowdown in the Brazilian Amazon: Prices or policies?*

¹⁶ Green Climate Fund. (2017). *GCF begins first REDD+ transfer*.

agricultural systems, implementing mechanisms for restoration and conservation, and providing a framework to channel future results-based payments. Another example is the DRC, which signed a preliminary agreement in 2016 with the World Bank's Forest Carbon Partnership Facility (FCPF) to accelerate efforts to achieve substantial emission reductions in the land sector.¹⁷ The proposed approach relies on a strategic mix of financial instruments that support the strengthening of institutions and program costs, allocate investments to different implementation activities and groups, and create the prospect of reinvestments through results-based payments. The DRC also shares a letter of intent with the Central African Forest Initiative (CAFI) to support the implementation of the DRC's National REDD+ Framework Strategy and REDD+ Investment Plan.¹⁸ The REDD+ Investment Plan is a comprehensive, cross-sectoral plan, which includes seven pillars: land use, tenure, demography, governance, agriculture, energy, and forestry.¹⁹ These country examples are expanded on in Box 4.

Box 4: Examples of integrated financial strategies supporting REDD+ in Brazil, DRC, and Ecuador

Using a combination of domestic finance and policy-making, international support, and jurisdictional approaches, Brazil has been able to make significant strides in combating deforestation. To date, over USD 2.4 billion in domestic and international resources have been invested in the Brazilian Amazon, combining incentives for climate-smart agriculture, international REDD+ incentives, subnational budgetary investments, a federal action plan to improve monitoring and control, and several measures to strengthen governance. Through the PPCDAm (Action Plan for Prevention and Control of Amazon Deforestation), real-time monitoring of forests and the expansion of protected areas led to a strengthening in enforcement.* Credit restrictions to farmers in high-deforestation municipalities were put in place and voluntary agreements with the cattle and soy industry created effective private sector market exclusion arrangements. During 2015 to 2016, however, **deforestation in the Amazon increased again.** The increase coincided with a period of political uncertainty and substantial budgetary cuts. Certain environmental laws were weakened or saw their implementation delayed. While key environmental enforcements agencies become more reliant on resources channeled through the Amazon Fund, the capacity of the Fund itself to tap international results-based finance reduces with the increase in deforestation. Furthermore, in the biennium 2015 to 2016, the ABC Program only managed to disburse 68 percent of all funds made available by the federal government, showing there are still a number of complexities associated with accessing existing funds.† A number of proposals have been made to **better align existing policies and mechanisms**, catalyzing the use of existing financial resources. This includes, for instance, re-arranging existing rural credit lines so that producers that are more advanced with Forestry Code compliance are granted greater access to finance.‡ Another is to extend the reach of the ABC Program by connecting it to existing official family-based agriculture support and establish partnerships with local stakeholders (municipalities, training centers, cooperatives) to further disseminate knowledge and capacity for climate-smart agriculture.§

More recently, USD 84 million in federal government and international grant financing has been pooled in Ecuador in support of a program that aims at implementing priority policies and measures of the country's REDD+ Action Plan. The Action Plan aims to realize zero-net deforestation by 2020 by promoting tax incentives for activities supporting REDD+ and enhancing purchasing policies for deforestation-free commodities, their accreditation, and traceability. The program also plans to encourage loans and orient public credit lines toward sustainable agricultural production practices. GCF co-financing covers just over half of the investment in the project, while the Ecuadorean Ministries of Environment and Agriculture plan to provide most of the remainder of the financing needed.|| Minor financial contributions from the United Nations Development Programme, the United Nations Environment Programme, and the Food and Agriculture Organization are also outlined in the project document. In July 2017, USD 7.9 million was transferred to the project. In addition to allowing Ecuador to move to the implementation phase of their REDD+ Action Plan, this disbursement marked the first time the GCF distributed climate finance supporting REDD+.[¶]

¹⁷ World Bank. (2014). *Submission of draft letter of intent: Potential purchase of emission reductions from the Mai Ndombe REDD+ ER Program in the Democratic Republic of Congo*. World Bank. (2017). *Letter of intent: Potential purchase of emission reductions from the Mai Ndombe REDD+ ER Program in the Democratic Republic of Congo*.

¹⁸ Central African Forest Initiative. (n.d.) *The Letter of Intent between CAFI and the DRC*.

¹⁹ Central African Forest Initiative. (2015). *Plan d'investissement REDD+*.

With support from international donors and the World Bank, the DRC - home to the world's second largest rainforest in the world - has developed a financing strategy of over USD 50 million for the Mai-Ndombe province.[#] This program demonstrates not only the importance of coordination and planning but also the need for an array of financial instruments tailored to specific circumstances and purposes to achieve forest emission reductions. Through the Forest Carbon Partnership Facility (FCPF) Readiness Fund, Forest Investment Program, Dedicated Grant Mechanism for Indigenous Peoples, Central African Forest Initiative (CAFI), and potentially the Global Environment Facility and the FCPF Carbon Fund, the DRC has developed a substantial investment package for the Mai-Ndombe province,^{**} which is a deforestation hotspot. It combines readiness funding for the national REDD+ infrastructure, direct investment for implementation of REDD+ activities and results-based payments for verified emission reductions. Furthermore, the jurisdictional program is not implemented in isolation but is embedded into the national REDD+ strategy. The DRC has secured funding from CAFI to advance policy reforms related to REDD+, such as land tenure and land use planning; enhance the REDD+ infrastructure, such as the transaction registry and measurement, reporting, and verification system; and improve national REDD+ institutions, such as the National REDD+ Fund (FONAREDD).^{††}

^{*} Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal (PPCDAm), launched in 2004. From 2007 to 2014 the Federal Government allocated nearly USD 500 million to the PPCDAm. See Moutinho et al. (2016).

[†] Observatório ABC. (2017). *Desafios e restrições dos produtores rurais na adoção de tecnologias de baixo carbono ABC Observatório ABC Estudo de caso em Alta Floresta, em Mato Grosso.*

[‡] INPUT & Climate Policy Initiative. (2016). *Código Florestal e crédito rural: como aperfeiçoar a integração de duas importantes políticas públicas no Brasil.*

[§] Observatório ABC. (2017).

^{||} United Nations Development Programme. (2017). *United Nations Development Programme Project Document for nationally implemented projects financed by the Green Climate Fund (GCF).*

[†] Green Climate Fund. (2017).

[#] Forest Carbon Partnership Facility. (n.d.). *Updates on the Democratic Republic of Congo's Mai Ndombe emission reductions program.*

^{**} World Bank. (2016). *Combined project information documents/integrated safeguards data sheet. Mai-Ndombe REDD+ integrated project under CAFI*; The World Bank. (2017). *Combined project information documents/integrated safeguards data sheet – additional financing. Mai-Ndombe REDD+ integrated project under CAFI.*

^{††} Central Africa Forest Initiative. (n.d.). *Democratic Republic of the Congo.*

Investments in the transition toward sustainable land use offer financial returns while meeting demand. Sustainable land use is not only essential for mitigating climate change. It also offers financial benefits in the form of increased yields and higher quality commodity supplies. Pilots in the cattle sector have shown that sustainable intensification can increase returns while sparing land and ecosystems. For example, the Novo Campo program of *Pecuária Sustentável da Amazônia* in Brazil has shown that pilots for sustainable beef intensification in Brazil can increase productivity by up to 700 percent.²⁰ If managed well, palm oil production can also become efficient enough to avoid deforestation, allow for other crops to use available land, and even begin reforestation of retired areas.²¹ Sustainable intensification and forest restoration provide significant investment opportunities. Once costs and investment barriers (e.g. those related to knowledge) are overcome, many models for sustainable land use offer opportunities for innovative financing that may yield increases in efficiency and higher returns.²² They also offer new opportunities for economic development, especially in rural areas where jobs, innovation, and investments are needed..

The cost of inaction against deforestation and land degradation is high and increasing. Land degradation due to land-use and land-cover change is estimated to cost about USD 231 billion per year.²³ The annual cost of loss of tropical forests and rainforests is approximately USD 43 to 65 billion.²⁴ The

²⁰ Instituto Centro de Vida. (2015). *Novo Campo program: A strategy for sustainable cattle ranching in the Amazon.*

²¹ Tropical Forest Alliance 2020. (2017). *Commodities and forests agenda 2020: Ten priorities to remove tropical deforestation from commodity supply chains.*

²² Tropical Forest Alliance 2020. (2017). *The role of the financial sector in deforestation-free supply chains.* Geneva: World Economic Forum

²³ Nkonya, E., Anderson, W., Kato, E., Koo, J., Mirzabaev, A., von Braun, J., & Meyer, S. (2015). Global Cost of Land Degradation. In Nkonya, E., Mirzabaev, A., & von Braun, J. (Eds.), *Economics of land degradation and improvement – A global assessment for sustainable development.* Cham: Springer International Publishing.

²⁴ Trivedi, M., Papageorgiou, S., & Moran, D. (2008). *What are rainforests worth? And why it makes economic sense to keep them standing.* Oxford: Global Canopy Programme.

returns on investments that address land degradation, however, are twice the investment in the first six years and returns are five dollars for each dollar in a 30-year planning horizon.²⁵ Illegality also comes with a steep price tag. Governance improvements can help fiscal authorities to recapture some of the revenues in taxes and royalties forgone due to the illegal use of lands and deforestation. The World Bank estimates the cost of logging in developing countries at more than USD 15 billion per year: USD 10 billion from the value of stolen timber and USD 5 billion from evaded taxes in legal logging.

Tracking Progress on Goals 8 and 9: Methodology

Scope

Financial flows from a wide range of sectors and policy areas (e.g. agriculture, mining, infrastructure, governance, rural development) can have an impact on forests and forest emissions.

For the purpose of our analysis we use the following terms that describe categories of finance:

- **“Green finance”** describes finance that is *aligned* with objectives for the conservation, protection, or sustainable use of forests – or what we refer to as forest and climate goals. This includes finance provided with a clear and stated objective of climate mitigation in the forestry sector, REDD+, conservation, and sustainable forest and land use.
- **“Grey finance”** describes finance that has no stated objective to positively impact the forest but has the potential to have an impact on forests. Whether this impact is positive or negative depends on the policy context, as well as the design and implementation of these activities.

In the category of grey finance, we focus on finance pertaining to policy areas that are particularly relevant to forests, such as the agriculture sector. Investment in agricultural intensification, for example, can reduce pressure on forests by sparing land, but also make land use more profitable by increasing yields with reduced input. Policies need to be in place to limit further conversion of forests into croplands. Similarly, reforms for land titling and land-use planning, for example, can open up previously undisturbed forests to exploitation. With the right conditions in place, they can also provide security and incentives for farmers or forest users to invest in improvements on existing farmlands.

This approach is based on a paper by the Climate Policy Initiative, which illustrates the wide variety of “green” and “grey” financial flows relevant to forest goals for Côte d’Ivoire (Box 5),²⁶ and a study by the World Resources Institute, which differentiates between financing that is “aligned” or “misaligned” with climate goals, and finance whose alignment is “conditional” upon their design, implementation, and policy context.²⁷

Considering the countless investments that impact forests directly or indirectly, we apply the following boundaries to our analysis of the amount of financial flows dedicated to the conservation or sustainable management of forests:

- We limit our analysis to **financial support** seeking to reduce emissions and achieve sustainable land use. However, we fully acknowledge that non-financial support, delivered in the form of capacity building and training, institutional strengthening, and technology transfer, is essential for achieving long-term sustainable land use.

²⁵ Nkonya et al. (2015).

²⁶ Falconer, A, Dontenville, A., Parker, C., Daubrey, M., & Gnaore, L. (2017). *Landscape of REDD+ aligned finance in Côte d’Ivoire*. San Francisco, CA: Climate Policy Initiative.

²⁷ Christianson, G., Lee, A., Larsen, G., & Green, A. (2017). *Financing the energy transition: Are World Bank, IFC, and ADB energy supply investments supporting a low-carbon future?* [Working paper]. Washington, DC: World Resources Institute.

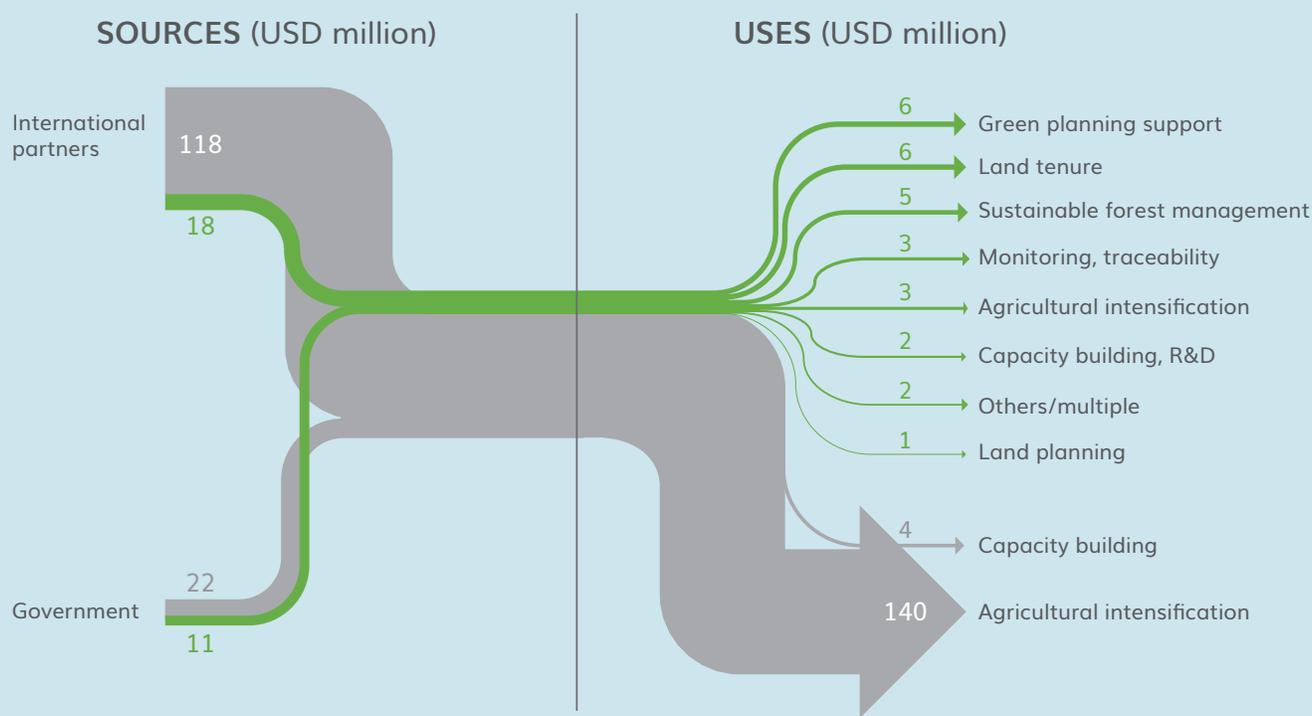
- We pay particular attention to **developing countries with high deforestation** (see Figure 3 for countries with >30,000 hectare gross forest loss in the period 2010-2015 – “deforestation countries”).²⁸

Box 5: Green and grey finance in Côte d’Ivoire*

Côte d’Ivoire has prioritized the production of both cash and subsistence crops for decades, and has experienced illegal mining and high demand for woodfuel, which has resulted in historically high rates of deforestation and the loss of over 80 percent of forest cover. Recognizing a need to shift away from “business as usual” (BAU) agriculture, the government has developed a National REDD+ Strategy and Investment Plan to address the issue of deforestation in the country. A recent analysis of public finance in the country traced green and grey finance flows relevant to REDD+ objectives. It showed that forests are impacted by a wide variety of different funding sources and purposes (Figure 2). The majority of these funds are grey finance for agricultural intensification, which can have either positive or negative impacts. These activities are not planned in the context of REDD+ (or similar objectives), and to a large extent, this funding is not tied to safeguards and land-use planning and could therefore cause an increase in forest emissions. If aligned with REDD+ priorities, activities in the grey zone could provide Côte d’Ivoire with the opportunity to contribute five times more finance to the National REDD+ Strategy.

* Falconer et al. (2017).

Figure 2: Sources and uses of REDD+ relevant green and grey finance in Côte d’Ivoire (2015)

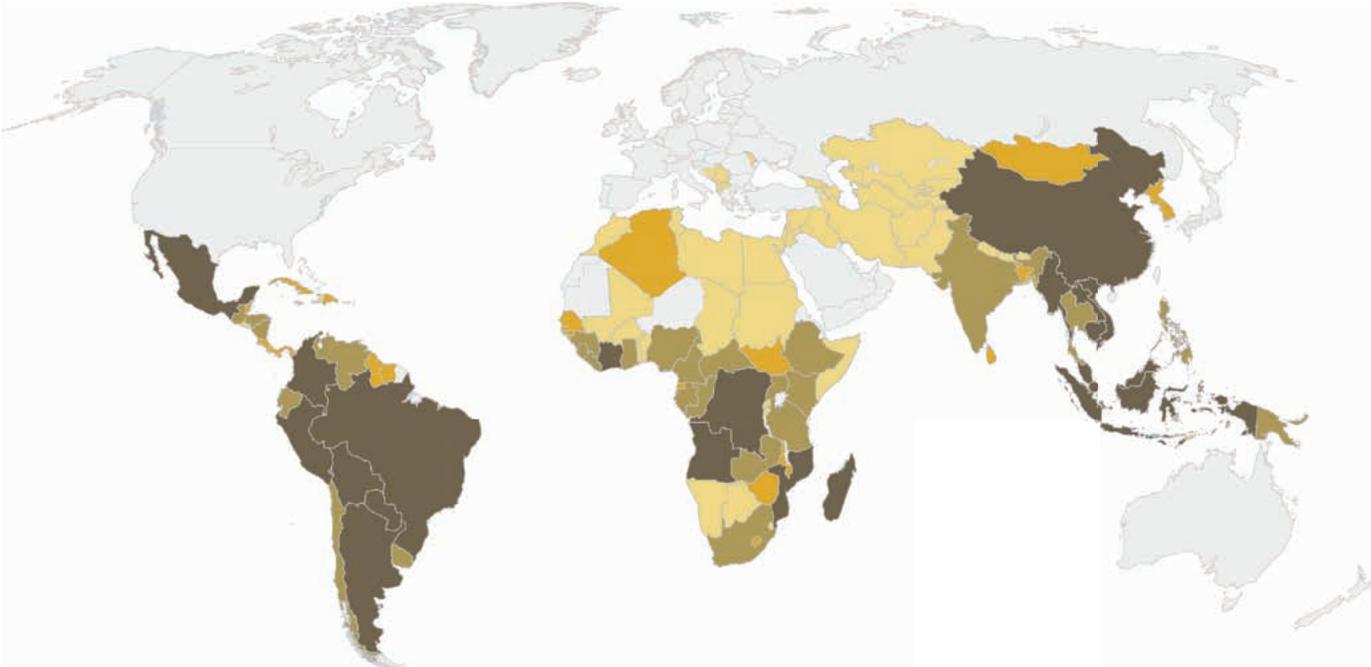


Sources: Climate Focus analysis based on Falconer, A, Dontenville, A., Parker, C., Daubrey, M., & Gnaore, L. (2017). *Landscape of REDD+ aligned Finance in Côte d’Ivoire*. Retrieved from Climate Policy Initiative Website: <https://climatepolicyinitiative.org/wp-content/uploads/2017/01/The-Landscape-of-REDD-Aligned-Finance-in-Cote-dIvoire.pdf>

Notes: Converted from FCFA to USD based on exchange rate used in the source publication.

²⁸ See Technical Annex for details. Considering only non-annex I parties under the UNFCCC. Gross forest loss data based on Hansen, M. C., Potapov, P. V., Moore, R., Hancher, M., Turubanova, S. A., Tyukavina, A., et al. (2013). *High-resolution global maps of 21st-century forest cover change* [Data file and codebook]. Retrieved from the Global Forest Watch website. Updated by Global Forest Watch.

Figure 3: Gross tree cover loss in developing countries (2010-2015)



- <30,000 ha
- 30,000 - 100,000 ha
- 100,000 - 1,000,000 ha
- >1,000,000 ha
- No data available, no forest loss reported, and Annex 1 countries

Tree cover loss (Mha) TOP 10	
Cumulative 2010-2015	
Brazil	14.4
Indonesia	9.9
DRC	5.1
China	3.3
Malaysia	3.0
Paraguay	2.4
Argentina	2.2
Bolivia	1.7
Madagascar	1.4
Myanmar	1.4

Rate of loss (%) TOP 10	
Average 2010-2015	
Cambodia	2.1
Sierra Leone	1.9
Malaysia	1.7
Paraguay	1.6
Madagascar	1.4
Uruguay	1.4
South Africa	1.2
Liberia	1.1
Côte d'Ivoire	1.1
Vietnam	1.1

Sources: Hansen, M. C., Potapov, P. V., Moore, R., Hancher, M., Turubanova, S. A., Tyukavina, A., et al. (2013). *High-resolution global maps of 21st-century forest cover change* [Data file and codebook]. Retrieved from the Global Forest Watch website. Updated by Global Forest Watch.

Notes: Rate of loss was calculated based on average gross tree cover loss (2010-2015) and tree cover (2000), considering tree cover above 30 percent. Developing countries represent non-annex I countries to the UNFCCC.

We focus our analysis on the amount of green finance and cover international, domestic, public, and private sources. In addition, we consider the different financial instruments applied, including the degree of concessionality and the conditionality of the finance. We also analyze progress made in investor policies that address deforestation risks, collaborative initiatives that help leverage green private investment, or other types of incentives such as preferential sourcing by companies from jurisdictions that address deforestation risks. Where data on financial disbursements are unavailable, we focus on commitments, which we define as legally non-binding or binding pledges, including in the form of announcements, funding allocations, or finance agreements.

Assessment Framework

To assess progress toward the achievement of NYDF Goals 8 and 9, we developed a framework of criteria and indicators to capture the various flows and trends related to finance aligned with forest and climate goals. The assessment framework draws on existing work from civil society initiatives that track finance and efforts under the sustainable finance agenda.²⁹

GOAL 8: Provide support for the development and implementation of strategies to reduce forest emissions

For this goal, we apply two criteria, one looking at public investment for strategies that address forest emissions and another looking at private investment targeted toward reducing forest emissions (Table 2).

Table 2: Assessment Framework for NYDF Goal 8

CRITERIA	INDICATORS	DATA SOURCES
1. Public support for the development and implementation of strategies to reduce forest emissions	1.1. International finance	Organization for Economic Co-Operation and Development (OECD), <i>Climatefundupdate.org</i> , FCPF program documents, i.e. Emissions Reduction Program Documents (ERPDs)
	1.2. Domestic finance	ERPDs from Mexico, Costa Rica, Chile, Republic of Congo, Ghana, and DRC, literature review
2. Private investment targeted at reducing forest emissions	2.1. Policies for investment in forest-risk commodities	Forest 500, <i>Forestsandfinance.org</i> , literature review
	2.2. Investments in sustainable commodity production and conservation	Forest Trends (<i>State of private investment in conservation 2016</i>) [*]

^{*} Hamrick, K. (2016). *State of private investment in conservation 2016*. Washington, DC: Ecosystem Marketplace.

GOAL 9: Reward countries and jurisdictions that, by taking action, reduce forest emissions – particularly through public policies to scale up payments for verified emission reductions and private-sector sourcing of commodities

For this goal, we have developed two assessment criteria, one looking at public payments for verified forest emission reductions, and another looking at support for deforestation-free supply chain efforts to reflect the “private-sector sourcing” element in the goal (Table 3).

Table 3: Assessment Framework for NYDF Goal 9

CRITERIA	INDICATORS	DATA SOURCES
1. Public payments for verified emission reductions (VER)	1.1. International payments	<i>Climatefundupdate.org</i> , Forest Trends, REDDX, literature review
	1.2. Domestic payments	Literature review
2. Support for supply chain efforts to incentivize reduced forest emissions	2.1 Public and private sector support for jurisdictional sourcing initiatives in the context of zero-deforestation commitments	World Wildlife Fund for Nature (<i>Jurisdictional approaches to zero-deforestation commodities</i>), [*] AlphaBeta (<i>Supporting jurisdictional leadership in net zero deforestation through sustainable value chains: Opportunities for TFA 2020</i>), [†] literature review

^{*} Wolosin, M. (2016). *WWF discussion paper: Jurisdictional approaches to zero deforestation commodities*. Gland, Switzerland. World Wildlife Fund for Nature.

[†] AlphaBeta. (2017). *Supporting jurisdictional leadership in net zero deforestation through sustainable value chains: Opportunities for TFA 2020*. Sydney, Australia: AlphaBeta.

²⁹ The assessment on progress towards NYDF Goals 8 and 9 draws on existing information and data compiled and analyzed by *Climatefundupdate.org*, Forest Trends and REDDX, Forest 500, *Forestsandfinance.org*, ODI, OECD, TFA2020, and WWF.

Our analysis encountered the following barriers and limitations:

- There are data gaps at all levels, domestic and international, public and private. In particular, there is a lack of data on private finance. We added pertinent case studies to illustrate individual examples of progress where comprehensive datasets are sparse.
- Where data exist, there is often no reporting on implementation or impact of support for activities to reduce emissions from forests.
- There are overlaps in finance flows between different tracking initiatives, e.g. what major OECD donor countries report as Official Development Assistance (ODA) and flows that are tracked by initiatives focused on REDD+ funding via multilateral climate funds.
- There are also different methods applied in the tracking and reporting of finance that complicate data collection, e.g. how to deal with currency exchange and inflation rates over time or reporting commitments versus disbursements. Definitions between data sources vary and make it difficult to provide a systematic overview of finance.

Tracking Progress on Goals 8 and 9: Findings

GOAL 8: Provide support for the development and implementation of strategies to reduce forest emissions

CRITERION 8.1: Public support for the development and implementation of strategies to reduce forest emissions

In this section we analyze public international and domestic finance provided for the development and implementation of strategies to reduce deforestation. This includes relevant finance in support of reducing forest emissions but not tied to verified emission reductions (covered under Goal 9).

For the first indicator, we summarize the magnitude and trends of two types of international public finance: (i) development finance targeted at the forestry sector as a whole, and (ii) finance for the preparation and implementation of REDD+ strategies specifically. We address a number of questions, such as: How is finance distributed between developing countries, and is it targeting areas of high forest loss (see Figure 3 for deforestation countries)? Who are the main providers of finance? How does green finance compare in magnitude with grey finance? What are the main financial instruments? Data on international finance flows were sourced from initiatives that have been tracking finance aligned with forest and climate goals for a number of years, complemented with REDD+ program documents and a literature review (see Technical Annex for details). In addition, we highlight relevant support provided by international philanthropic sources. For the second indicator, we focus our analysis on case studies owing to the lack of aggregate data on domestic finance flows.

INDICATOR 8.1.1: International finance

Public finance plays a key role in reducing forest emissions. It can support research and capacity building, provide direct incentives for the protection of forests, and aid the mobilization of private investment needed to address deforestation. Our findings suggest that forests in deforestation countries receive a share of finance that is (i) disproportionate to their mitigation potential – over 70 times lower than overall global development finance for climate change mitigation, and (ii) 40 times lower than grey financing to the agriculture sector in deforestation countries.

Development finance

International forest finance remains in short supply and has not grown substantially. According to OECD data for 2010 to 2015, developed countries and multilateral institutions committed³⁰ USD 167 billion in mitigation-related development finance, out of which USD 3.6 billion went to the forestry sector – the large majority (65 percent) to countries that we classify as deforestation countries. Another USD 1 billion was pledged for regional or geographically unspecific support to the forestry sector.³¹ Over the monitored period, annual commitments did not increase, and in 2015, financial commitments to deforestation countries were the lowest since 2010. Major multilateral funds include several European Union institutions,³² the Inter-American Development Bank, the World Bank Group, and the Global Environment Facility. The top bilateral providers are Japan, Germany, the UK, Finland, and France.

Financial commitments concentrated on a few countries, including major deforestation hotspot countries, but not necessarily countries where forests are disappearing the fastest. Ten countries received 72 percent of the total green finance targeted at deforestation countries,³³ while many of the ten countries with the highest deforestation rates were not among them (Figure 4). There may be various explanations why some countries do not receive international funds, relating to both recipients and donors. For example, some countries may lack the political commitment to address deforestation or have weak capacity to propose or manage REDD+ programs. In some cases, funders may focus on countries with the largest forest loss in order to have greater impact.

The absolute value of these resources is dwarfed by grey development finance in support of sectors that drive deforestation. International public finance plays a role in unlocking private investment and development in sectors that drive deforestation. Agriculture accounts for 53 percent³⁴ to 80 percent³⁵ of global deforestation, while four commodities alone – palm oil, soy, beef and wood products – contribute 40 percent of deforestation.³⁶ Between 2010 and 2015, deforestation countries received a cumulative USD 87 billion in development finance for the agriculture sector.³⁷ These grey activities (e.g. integrated agricultural development or farm development, land-use planning) may help to reduce forest emissions, have no impact, or increase pressure on forests. Most development agencies have policies in place to avoid or mitigate harm on forests and the environment, but few measure or disclose their impact.³⁸ In practice, there are many opportunities for better integrating forest policies, not only to avoid harm but to coordinate and exploit synergies between sectors: for example, in the energy sector, programs that support rural electrification can be prioritized in areas with high pressure from fuel-wood collection; rural development programs that promote small businesses could be designed to prioritize landless activities. At the policy level, some donors seek to improve the strategic alignment between their targeted forest portfolio and other sectors. The World Bank Group's Forest Action Plan, for example, aims for a "holistic look at landscapes" to ensure that support to other sectors does not harm forests.³⁹

³⁰ While commitments refer to a firm obligation expressed by a donor country or multilateral finance institutions to provide a specific amount of financial support to a recipient country or another multilateral organization, disbursements are actual transfers of financial resources to the recipient. The disbursement of committed financial resources can take several years. In this assessment, international climate finance to the forestry sectors is reflected by presenting bilateral and multilateral ODA commitments.

³¹ Data do not capture relevant support provided in cross-sectoral finance for low-carbon development.

³² Including the Commission of the European Communities, the European Development Fund, the European Investment Bank, the Humanitarian Aid Office of the European Commission, and other organizations.

³³ The top five are India, China, Brazil, Indonesia and Vietnam, in that order.

³⁴ European Commission. (2013). *The impact of EU consumption on deforestation: Comprehensive analysis of the impact of EU consumption on deforestation* [Technical report No. 063]. Luxembourg: Publications Office of the European Union.

³⁵ Kissinger, G., Herold, M., & de Sy, V. (2012). *Drivers of deforestation and degradation: A synthesis report for REDD+ policymakers*. Vancouver, Canada: Lexeme Consulting.

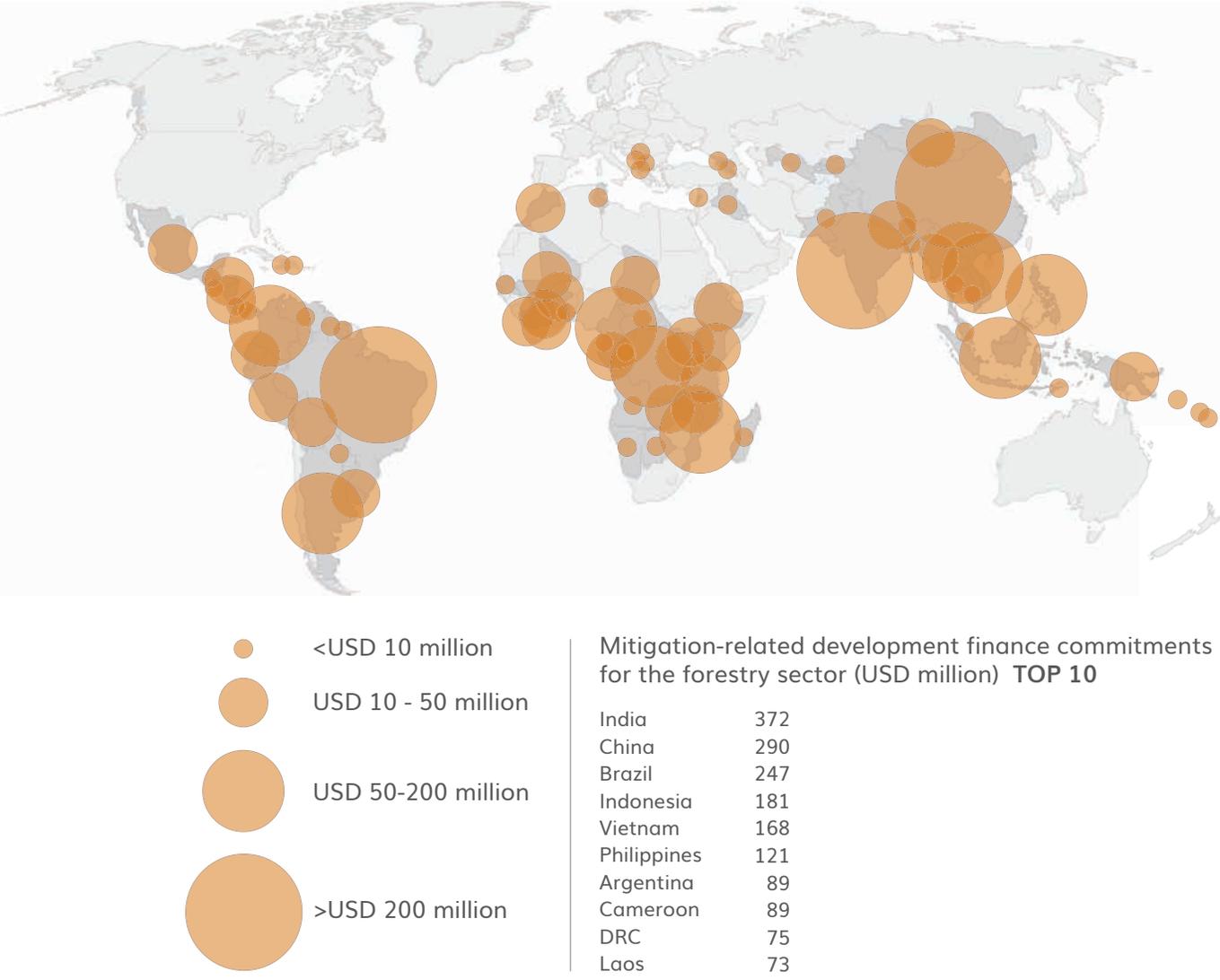
³⁶ Henders, S., Persson, M., & Kastner, T. (2015). Trading forests: land-use change and carbon emissions embodied in production and exports of forest-risk commodities. *Environmental Research Letters*, 10(12), 1-13.

³⁷ Organisation for Economic Cooperation and Development (2017). *Creditor Reporting System*. Retrieved from the OECD Website.

³⁸ Puzio, L. (2015). *Analysis of World Bank finance & forests. The impact of development projects on tropical forests and forest peoples*. Washington, DC: Bank Information Center; Joldersma, D. (2015). *Analysis of IFC finance & forests. The impact of development projects on tropical forests and forest peoples*. Washington, DC: Bank Information Center.

³⁹ World Bank. (2016). *World Bank Group steps up forest action in support of development and climate goals* [Feature story].

Figure 4: Mitigation-related development finance commitments targeted at the forestry sector and deforestation countries (2010-2015)



Sources: Climate Focus analysis based on climate-related development finance dataset retrieved from OECD website.

REDD+ finance

Several programs support countries in reducing forest emissions through the development and implementation of REDD+ strategies. More than 53 developing countries have started to set up national or jurisdictional⁴⁰ REDD+ programs to access results-based REDD+ finance and develop policies and measures to reduce forest emissions. A country's capacity for accessing results-based REDD+ finance is built in a series of overlapping phases (Box 6). A number of initiatives provide technical and financial support to assist countries with readiness programs (phase 1) and policy implementation (phase 2). Experience shows that financing obtained for activities pertaining to various phases are required and accessed in parallel. Initiatives that provide results-based finance (phase 3) fall under Goal 9 of the NYDF. Phase 1 and 2 support is provided, among others, by the Forest Investment Program (FIP), the FCPF Readiness Fund, the UN-REDD Program, and the Central African Forest Initiative (Table 4), and the GCF (Box 7). In the future, the GCF is expected to become the key mechanism for financial support under the Paris Agreement and will likely play an increasingly important role for Phase 2 and 3 REDD+ finance.

⁴⁰ That is, at the level of a state or biome or otherwise defined area.

Box 6: The phased approach of REDD+

Parties to the UNFCCC agreed that REDD+ is implemented in three phases:^{*}

1. The development of national strategies or action plans, policies and measures, and capacity-building
2. The implementation of national policies and measures and national strategies or action plans that could involve further capacity building, technology development and transfer, and results-based demonstration activities
3. Results-based actions that are fully measured, reported, and verified.

^{*} United Nations Framework Convention on Climate Change (2015). *Adoption of the Paris Agreement, Article 5, 21st Conference of the Parties*. Paris: United Nations.

Table 4: Multilateral initiatives supporting REDD+ preparation and implementation (see Box 7 for information on the GCF)

INITIATIVE	DESCRIPTION
UN-REDD	The UN-REDD Program is a UN collaborative initiative of the UNFAO, UNDP, and UNEP for REDD+ in developing countries. By promoting the meaningful involvement of all stakeholders, the Program supports developing countries in the design and implementation of national REDD+ activities agreed under the UNFCCC.
Forest Carbon Partnership Facility Readiness Fund	The Readiness Fund supports tropical and subtropical developing countries preparing to participate in REDD+ by building the necessary capacities, such as adopting national REDD+ strategies and setting up measurement, reporting, and verification (MRV) systems.
Forest Investment Program	Funded by the Strategic Climate Fund, the Forest Investment Program (FIP) is a funding window of the Climate Investment Funds and supports developing countries' efforts toward REDD+ by providing grants and low-interest loans channeled through partner multilateral development banks. The FIP also helps countries build experience and share knowledge on REDD+.
Central African Forest Initiative	The Central African Forest Initiative is a coalition of six Central African countries and several donors including the European Union, Norway, and other European countries supporting phase 1 and 2 in Central Africa. Its goal is to implement country-led, holistic low emissions development investment frameworks, such as national policy reforms and measures addressing drivers of deforestation and forest degradation.

Close to USD 1.7 billion in REDD+ finance has helped to strengthen capacities, policy dialogue, and the development of REDD+ strategies. In many tropical forest countries, mitigation has become a primary objective of programs addressing forest loss and degradation. Finance has supported the development of new strategies to address deforestation and forest degradation and improved capacities for forest monitoring, participation in policy-making, and institutional dialogue.⁴¹ According to *Climatefundsupdate.org*, cumulative REDD+ support by multilateral initiatives for phase 1 and 2 financing since 2008 amounts to almost USD 1.4 billion in commitments.⁴² Countries that applied to the FCPF Carbon Fund reported USD 260 million in bilateral support, with major donor countries including Germany, Norway, and Japan.⁴³ It is possible that finance flowing through dedicated REDD+ funds is also reported as development finance to the forest sector in the OECD database; for this reason, figures are not combined.

⁴¹ Lee, D., & Pistorius, T. (2015). *The impacts of international REDD+ finance*. San Francisco, CA: Climate and Land Use Alliance.

⁴² *Climatefundsupdate.org* data, last updated in May 2017.

⁴³ Climate Focus analysis based on Forest Carbon Partnership Facility. (2017). *Forest Carbon Partnership Facility 2017 annual report*.

Box 7: The Green Climate Fund

The Green Climate Fund was set up in 2010 under the UNFCCC to assist developing countries in the mitigation of and adaptation to climate change. It serves as an operating entity of the financial mechanism of the Convention and is expected to serve as key conduit of climate finance. Initial resource mobilization efforts have raised USD 10.3 billion.* In September 2017, the GCF board approved 11 new projects and programs with a cumulative finance volume of nearly USD 393 million.† At the same meeting, the board issued a “Request for proposals for the pilot programme for REDD- plus results-based payments. To date, GCF’s portfolio comprises 54 projects with a total funding volume of nearly USD 2.6 billion.‡ Through a board decision in 2016,§ the GCF recognized the need to enhance national REDD+ strategies by making use of the fund’s existing tools and modalities for the support of countries’ efforts during REDD+ phase 1 and 2. Support will be provided in form of technical and financial assistance. Financial support for project and program preparation is planned to amount to USD 1.5 million per project and will be disbursed mostly through grants, with equity finance possible for private sector projects.||

To catalyze international payments for emission reductions in the forest sector, GCF adopted a two-track finance approach. Track one is intended to cover payments based on important legislation and policy milestones, facilitating implementing countries’ gradual transitions from REDD+ phase 2 to phase 3. Via track two, GCF intends to channel results-based payments to countries making achievements in form of quantifiable and verifiable forest emission reductions.¶

* The recent intention of the US government to withdraw from the Paris Agreement calls into question whether the remaining USD 2 billion of the USD 3 billion US pledge to the GCF will be honoured.

† Green Climate Fund. (2017). *GCF approves 11 projects at its final Board meeting of the year*, [Press release].

‡ As of October 2017.

§ Green Climate Fund. (2016). *Decisions of the Board – fourteenth meeting of the Board, 12-14 October 2016*.

|| Green Climate Fund. (2017). *Green Climate Fund support for the early phases of REDD plus*.

¶ Green Climate Fund. (2016). *Support for REDD-plus*.

There are trade-offs in allocation decisions between coverage of countries and the scale of financial support delivered. Several dozen countries have received small amounts of readiness funding, while the bulk of support for phase 2 funding is focused on just a few countries (Figures 5 and 6). This concentration of funding poses a challenge to other forested nations that have both the ambition and the political will to reduce deforestation and land-use changes. Though some finance is being targeted at countries with clear commitments to forest protection (e.g. expressed through NDCs and policy development), these amounts are often not sufficient or predictable enough to ensure government buy-in and cross-sectoral support needed to implement REDD+ in the long term.⁴⁴ Greater alignment of political, economic, and development incentives as well as planning and coordination will be necessary to ensure that all REDD+ funding needs are reliably met in the future.

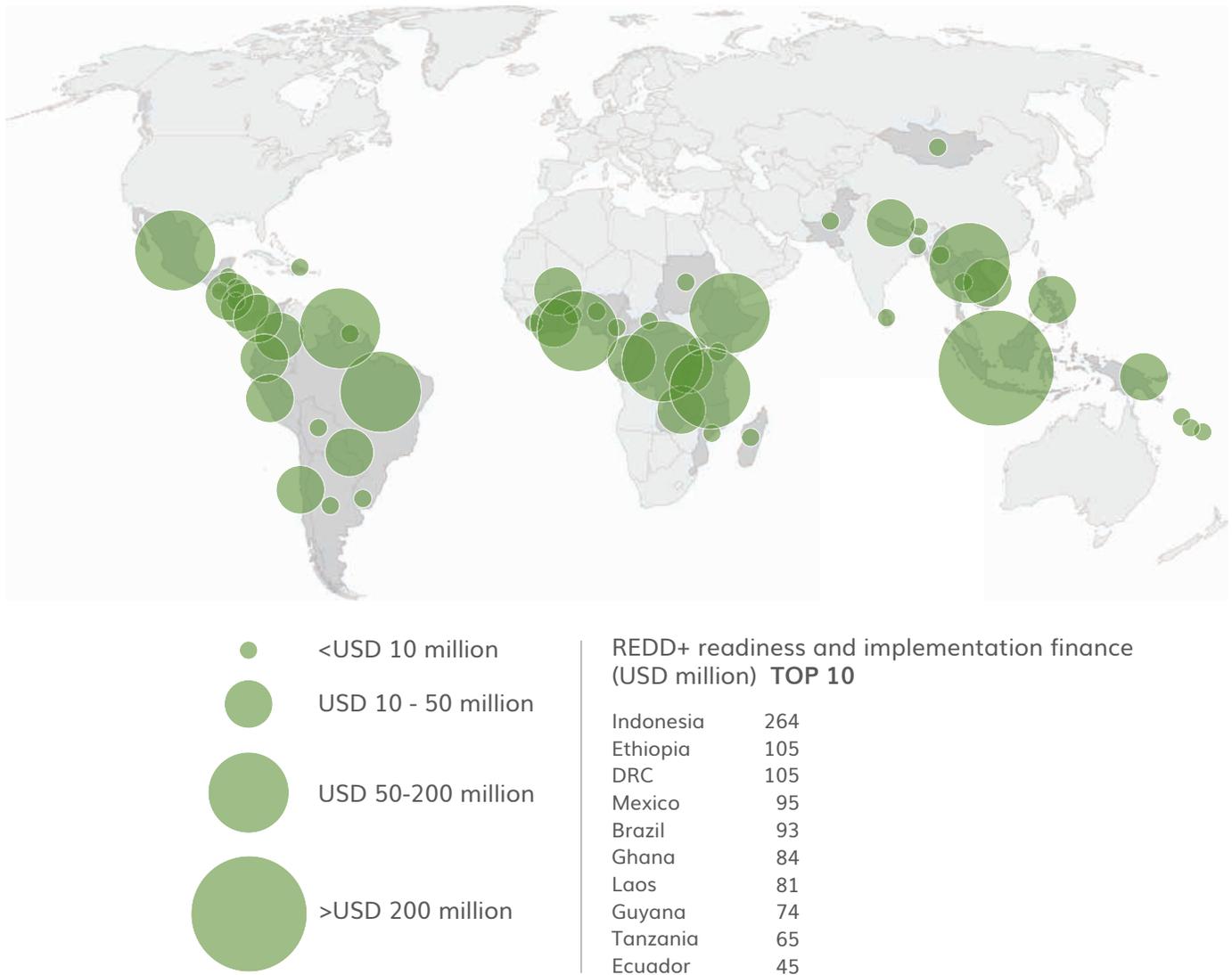
Major REDD+ initiatives also support indigenous peoples and local communities. The FIP, UN-REDD, and the FCPF have also set up dedicated mechanisms for the support of indigenous peoples in the context of REDD+ (Box 8). A recent study by the United Nations Office for Project Services identified commitments and disbursements of at least USD 1 billion of finance related to indigenous peoples between 2010 and 2015.⁴⁵ About USD 165 to 215 million of this amount was targeted at climate objectives.⁴⁶ The study also found that most funding organizations prioritize climate change and sustainable land management topics while few focus on issues of land rights.

⁴⁴ Lee, D., & Pistorius, T. (2015).

⁴⁵ Indufor. (2015). *Technical assistance and capacity building needs assessment for indigenous people in the context of climate change mitigation and adaptation*. Washington, DC: Indufor.

⁴⁶ Indufor. (2015).

Figure 5: REDD+ readiness and implementation finance (since 2010)

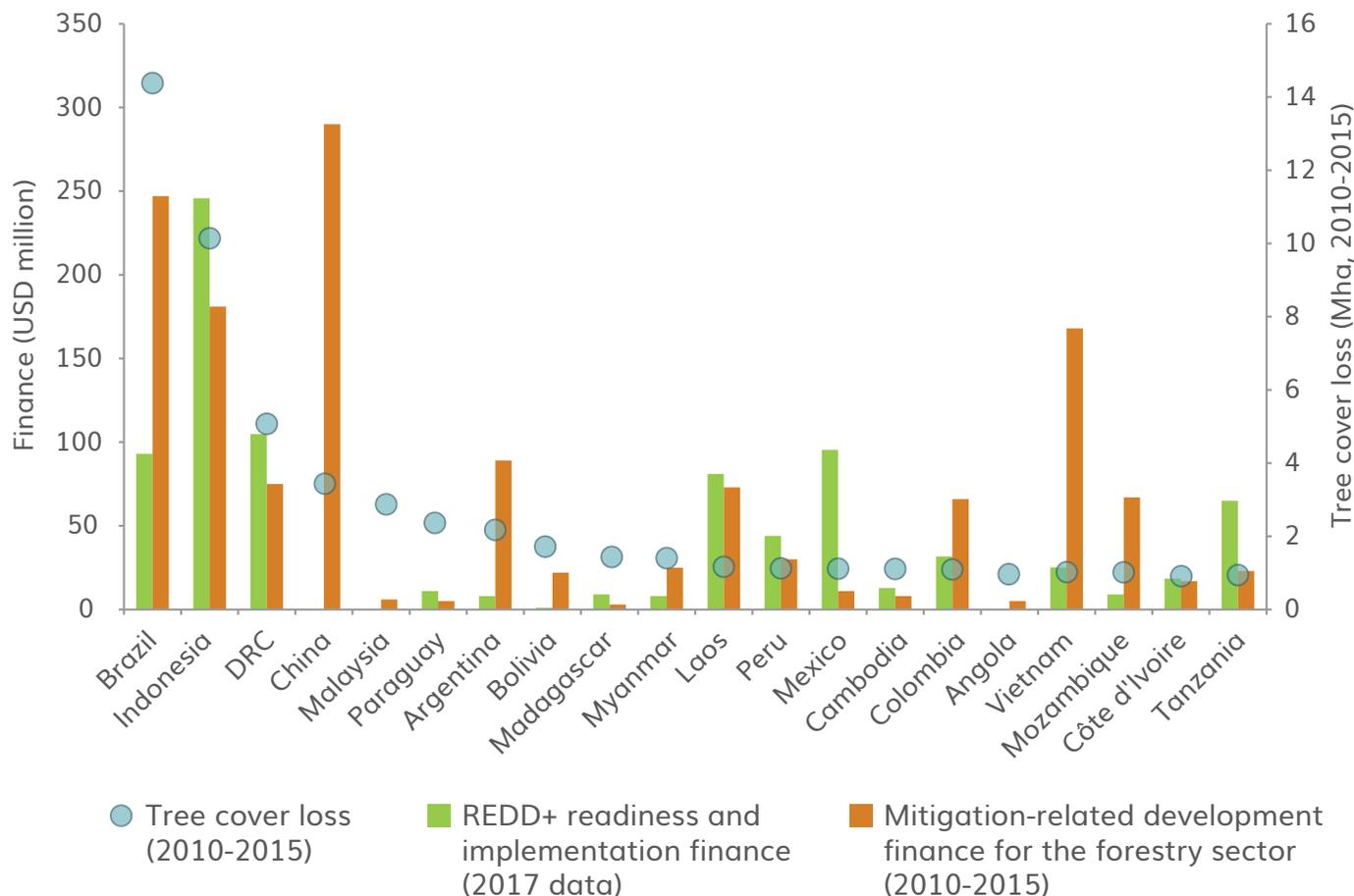


Sources: Climate Focus analysis based on *Climatefundsupdate.org* data (multilateral finance) and FCPF Annual Report (2017) (bilateral finance)

Notes: Multilateral data refer to commitments. Bilateral data is based on a survey conducted in 2017 with countries participating in the FCPF readiness process. Source document does not specify timeframe or whether finance has been committed or already disbursed.

REDD+ readiness finance relies on grants. Grants support institutional capacity building and monitoring and verification system development, among others. Philanthropic institutions also make grants with the goal of limiting GHG emissions from the forestry sector and supporting biodiversity and sustainable land use management (Box 9). Concessional loans comprise just 4 percent of the total approval amounts of REDD+ funding through multilateral climate funds, the remainder being grants. Of targeted REDD+ initiatives, it is only the FIP that offers concessional loans. While most REDD+ initiatives aim at leveraging private funding, few initiatives have successfully mobilized private sector participation in REDD+ programs.

Figure 6: Green finance vs. tree cover loss in deforestation countries



Sources: Climate Focus analysis based on mitigation-related development finance dataset retrieved from OECD website; *Climatefundsupdate.org* data (since 2010), Forest Carbon Partnership Facility annual report (2017); Hansen, M. C., Potapov, P. V., Moore, R., Hancher, M., Turubanova, S. A., Tyukavina, A., et al. (2013). *High-resolution global maps of 21st-century forest cover change* [Data file and codebook]. Updated by Global Forest Watch. Retrieved from the Global Forest Watch website.

Notes: See Figures 4 and 5 for clarification of timeframe and financing status.

Box 8: Targeted support for indigenous peoples and local communities

The FIP set up a Dedicated Grant Mechanism to facilitate the effective participation of indigenous peoples and local communities in REDD+ processes by providing them with the resources and capacities. Of the USD 80 million allocated, roughly 25 percent has been approved for four country projects and a Global Learning and Knowledge Exchange Project, each with a budget of approximately USD 5 to 6 million. Target countries include Brazil, Burkina Faso, the Republic of the Congo, and Peru, with the majority of supported activities focusing on capacity building and monitoring and evaluation.

The FCPF provides indigenous peoples and rural communities with targeted support through the Capacity Building Program for Forest-Dependent Indigenous Peoples and Southern Civil Society Organizations with the aim to engage them in REDD+ readiness activities. Operational since 2008, the program has financed 27 projects with a total of USD 2 million in funding in its first phase, which ended in 2016. The program now has more than USD 11.5 million in funding after additional financing was approved in 2017. In the second phase of the program, funding is provided through regional intermediary organizations. Indigenous peoples are also considered beneficiaries in the benefit-sharing plans of the FCPF Carbon Fund (see Table 7).

The UN-REDD Program established the Community-Based REDD+ (CBR+) initiative that specifically seeks to enhance the engagement, capacities, innovations, and perspectives of indigenous and forest communities

on REDD+. The initiative supports grassroots action through small grants of up to USD 50,000 awarded to indigenous peoples, forest-dependent communities, and civil society groups. CBR+ projects are currently being implemented in six pilot countries: Cambodia, the Democratic Republic of Congo, Nigeria, Panama, Paraguay, and Sri Lanka. It is implemented in partnership with the UNDP Small Grants Program, which is also a co-financier. CBR+'s financial commitment was USD 8 million between 2014 and 2016. As of December 2016, a total of USD 3 million has been disbursed for 94 grants to community-level projects (including co-financing).

The International Land and Forest Tenure Facility is a funding mechanism dedicated to improving land and forest tenure of indigenous peoples. The Facility's proposed budget is USD 35 million, and between 2014 and 2018 USD 15 million will be channeled to projects in six pilot countries: Panama, Liberia, Mali, Cameroon, Indonesia, and Peru.* In October 2017 the Government of Norway announced a new USD 20 million commitment to support the initiative.†

* Openaid. (2017). *The Tenure Facility (RRI) 2014-2017*. Retrieved from <https://openaid.se/activity/SE-0-SE-6-6105011801-GGG-31220>

† Norwegian Ministry of Climate and Environment. (2017). *Norway fulfills support pledge* [News story].

Box 9: Philanthropic support to reducing forest emissions

Philanthropies make strategic investments that seek to reduce forest emissions and unsustainable land-use practices. According to the Environmental Funders Network's Forest Funders Group, which mapped grant data from five European-based foundations between 2011 and 2015, 80 percent of grants were awarded to organizations headquartered in the United Kingdom or the United States, much of which was then allocated to forest protection in tropical countries. Slightly less than half of the total value of grants awarded – USD 8.2 million* – were allocated in support of sustainable landscapes, such as forest restoration, park management, REDD+, and climate adaptation work. Other domains that received significant amounts of philanthropic funding were efforts to counter agricultural conversion, industrial/illegal logging, and initiatives promoting sustainable farming and income generation. In total, grantees in 67 countries received funding, with the greatest amount of grants being awarded to activities in South America, followed closely by those in Southeast Asia. Despite its extensive forest cover, Central Africa received comparatively few grants.†

* Converted from GBP on September 26, 2017.

† Williams, H. (2017). *Mind the gap: A rough guide to the allocation of forest grants* [Blog post]. Retrieved from Environmental Funders Network Website.

INDICATOR 8.1.2: Domestic finance

As with international sources, green finance from domestic governments is only a fraction in comparison to subsidies in agricultural sectors that drive deforestation.

Some governments invest substantial amounts of finance in forest protection. For many upper-middle-income countries, their investments exceed what they receive from international public sources (see Box 10 for examples). While there is no aggregate information available on domestic finance, our analysis of six countries advanced in the FCPF funding pipeline shows that public domestic investments can exceed international public finance contributions. Over the next four to 10 years, Mexico, Costa Rica, Ghana, and Chile have plans to allocate substantial amounts of domestic finance to deliver on their REDD+ strategies (Table 5).⁴⁷ Within Brazil, where the Amazon Fund has commitments of over USD 1.7 billion (partly in results-based finance), an analysis by the REDDX initiative found that between 2012 and 2015, the large majority of REDD+ funds in the largest

⁴⁷ Climate Focus analysis based on ER-PDs provided by Forest Carbon Partnership Facility. (n.d.) Redd+ countries. Retrieved from www.forestcarbonpartnership.org/redd-countries-1

Brazilian State of Amazonas came from domestic sources (USD 334 million).⁴⁸ This is not the case in all Brazilian states, however. In Acre, domestic public flows amounted to USD 82.6 million, representing just one-fifth of all funds allocated to REDD+ in the state.⁴⁹ Even where the overall contribution of international finance is relatively small, the prospects of international REDD+ payments incentivize action and can provide a forum for debate and overcoming political economy issues of REDD+.

Table 5: REDD+ investments planned or already invested by domestic governments (USD million)

COUNTRY	DOMESTIC INVESTMENTS	EXAMPLES
Chile	37	Forest law development and enforcement, sustainable forest management and planning
Costa Rica	1,413	REDD+ program management, emission reductions quantification and verification, forest governance
Ghana	54	Forest law enforcement, forest policy reforms, forest data management
Mexico	7,990	Sustainable forest management, payments for environmental services

Countries also invest in REDD+ activities, although international donors generally provide a larger share of the investments. Vietnam established a successful payments-for-ecosystem-services scheme to mobilize other sources of funding. In addition, the government has invested in regulatory policies (e.g. logging bans) and reforestation incentives, driven primarily by the goal of reducing rural poverty.⁵⁰ An analysis by the Climate Policy Initiative found that in 2015, Côte d'Ivoire invested almost USD 11 million in REDD+ aligned activities (see Box 5). International donors contributed nearly double that amount.⁵¹ In other REDD+ countries, such as the Republic of Congo and DRC, domestic investments are small.

Governments in deforestation countries invest significantly larger amounts of grey finance than green finance, especially in the agriculture sector. Agriculture is the backbone of many developing country economies, with large shares of their populations relying on the sector for their basic income and livelihoods. In some deforestation countries, such as Paraguay, DRC, and Myanmar, the sector contributes to more than one-fifth of gross domestic product.⁵² Some governments therefore invest heavily in agricultural subsidies, often without safeguards to avoid deforestation and harm to ecosystems. Brazil, for example, spends an estimated USD 24 billion annually supporting the beef and soy sectors, mostly for access to capital, transport, and infrastructure – essential prerequisites for accessing global markets for these commodities. The Indonesian government subsidizes palm oil and timber investments with more than USD 22 billion of funding for infrastructure development, a transport fuel subsidy and other types of support.⁵³ Over the timeframe assessed in this analysis (roughly 6 years) the total flow of subsidies for key driver commodities in these countries alone amounted to USD 276 billion. The government of Côte d'Ivoire also spent roughly USD 22 million in grey finance – about twice as much as on green finance – mostly in the agriculture, mining, and industrial sectors.⁵⁴ According to FAO, governments in deforestation countries spent roughly USD 110 billion between 2010 and 2015 to support the agriculture and forestry sectors.⁵⁵

⁴⁸ Domestic sources include the Government of Amazonas, the Brazilian Government, Brazilian Public Partnerships, and >10 percent from domestic private initiatives; Bastida, C. A., Cenamo, M. C., & Gustavo, S. C. (2017). *Mapping financial flows for REDD+ and land use in Brazil: National and subnational analysis for the period 2009 through 2016*. Washington, DC: Forest Trends.

⁴⁹ Bastida, C. A., Cenamo, M. C., & Gustavo, S. C. (2017).

⁵⁰ Lee, D., & Pistorius, T. (2015).

⁵¹ Falconer et al. (2017).

⁵² World Bank. (n.d.). *Agriculture, value added (% of GDP)*. Retrieved from <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS>

⁵³ McFarland, W., Whitley, S., & Kissinger, G. (2015). *Subsidies to key commodities driving forest loss*. [Working paper]. London, United Kingdom: Overseas Development Institute.

⁵⁴ Falconer et al. (2017).

⁵⁵ Climate Focus analysis of FAOSTAT data on government expenditure for the agriculture and forestry sectors retrieved from <http://www.fao.org/faostat/en/#data/IG>.

Box 10: Examples of domestic programs that support forest and climate goals

Mexican Forest Fund

The Mexican Forest Fund (Fond Forestal Mexicano, FFM) is the main financial instrument of the National Forest Commission and plays a primary role in the management of forest resources in Mexico. While some finance comes from international donors and multilateral institutions like the World Bank, the FFM obtains a large portion of funding from domestic sources, such as payments by users of commercial water, land, and other environmental services, ensuring the fund's sustainability. The FFM, with financing from the federal and local governments, provided support for the conservation of more than one million hectares of forest containing around 28.5 million tons of CO₂e over the period 2004-2012.* More recent data are unavailable, as the FFM manages its financial flows in five-year cycles. Close to USD 186 million was disbursed in 2012 out of the total assets of USD 642 million, and 12,200 transactions took place through the FFM in 2011.†

Brazil's Low Carbon Agriculture Program‡

Brazil's Low-Carbon Agriculture (ABC) Plan is a federal government initiative to provide credit lines to rural producers wanting to transition to low-carbon agricultural practices. Farmers who demonstrate compliance with certain environmental and sustainability requirements qualify for access to credit at low interest rates.§ Due to its impact on pasture productivity, the program is expected to reduce deforestation pressure from extensive beef production, a key driver of deforestation in Brazil. The Bank of Brazil, as a major financial agent of fund disbursement, provided a total of USD 6 billion (as of 2016).|| Rural funding for the ABC program reached a total area of 3.7 million hectares between 2013 and 2015.¶ Other funders of the program include the National Bank for Economic and Social Development, private banks, and private sector finance.#

* Streck, C., & Murray, B. (2015). *Financing land use mitigation: A practical guide for decision-makers*. Little Rock, AR: Winrock International.

† Conway, D., & Pritchard, L. (2013). *International experience with REDD+ and national forest funds*.

‡ Ministério da Agricultura, Pecuária e Abastecimento. (2016). *Plano Setorial de Mitigação e de Adaptação às Mudanças Climáticas para a Consolidação de uma Economia de Baixa Emissão de Carbono na Agricultura*.

§ Haupt, F. (2015). *Sector profile: Brazil. Strategies for mitigating climate change in agriculture – background material*.

Supplementary materials for Dickie, A., Streck, C., Roe, S., Zurek, M., Haupt, F. & Dolginow, A. (2014). *Strategies for mitigating climate change in agriculture: Recommendations for philanthropy*. Washington, DC: Climate Focus & San Francisco, CA: California Environmental Associates.

|| Observatorio do Plano ABC. (2016). *Análise dos Recursos do Programa ABC*. Retrieved from http://observatorioabc.com.br/wp-content/uploads/2016/10/Relatorio-Completo_An%C3%A1lise-dos-Recursos-ABC-safra1516.pdf

¶ Observatorio do Plano ABC (2015). *Financiamento do Programa ABC atingiu 3,7 milhões de hectares*. Retrieved from <http://observatorioabc.com.br/2015/10/1939financiamento-do-programa-abc-atingiu-3-7-milhoes-de-hectares>

FEBRABAN. (2014). *The Brazilian financial system and the green economy: Alignment with sustainable development*. São Paulo, Brazil: Author.

CRITERION 8.2: Private investment targeted at reducing forest emissions

In this section we assess the progress of the private sector in reducing its deforestation impact and in investing and supporting commodity production and conservation. Mobilizing and re-directing private sector investment into sustainable landscapes is essential for meeting the NYDF goals. Shifting capital toward deforestation-free investments can lead to positive feedback effects and an expansion of opportunities as sustainable production increases.

Private investment can be differentiated by the desired outcomes of actors beyond financial gain, return expectations, investment horizons, and acceptable levels of investment risk. Investors also differ in their ability to control impacts on the ground, with financial institutions and institutional investors being further away from deforestation than project developers or agricultural producers. Sources of private capital range from individuals and companies to banks and specialized funds. With the ultimate objective of generating positive returns on their investment, investors can deploy resources through a wide range of instruments, including equity and debt, and structures, including companies, funds, and public-private partnerships.

For the first indicator, we analyze investor policies in forest-risk commodities.⁵⁶ We collected data from initiatives that track private investor policies and assign scores (Forest 500, *Forestsandfinance.org*) to provide insight on whether progress has been made on reducing forest emissions from operations supported by the private sector. We also compiled case studies on several collaborative initiatives that support the transition to sustainable supply chains and improve sustainability standards within the banking industry. For the second indicator, we track private investments in two areas related to reducing forest emissions – “sustainable food and fiber” and “habitat conservation” – as compiled by Forest Trends, including information on the profitability of such investments.

INDICATOR 8.2.1: Policies for investment in forest-risk commodities

A number of banks have published policies to identify and manage deforestation risks and there is increasing initiative from shareholders to address these risks. Yet, few policies are mandatory and there is a lack of transparency on their application.

Shifting private capital away from deforestation is essential, as public funds alone are vastly insufficient to reach the scale of investment required. Total green finance commitments in deforestation countries from international public sources amounts to USD 8.7 billion (Criteria 8.1 and 9.1), while grey finance for agriculture is USD 87 billion. This represents a substantial amount of grey finance, which has the potential to be greened. A proxy for private investment in land use, over the period 2010-2014, the cumulative value of gross capital stocks in deforestation countries across the agriculture, forestry, and fisheries sectors exceeded USD 414 billion.⁵⁷

Financial institutions are adopting policies that address deforestation risks, but limited information is available about their progress in implementing those policies. Re-directing private investment will require support from financial institutions and lenders in setting standards and increasing transparency around policies and safeguards for green investment. Such policies seek to ensure that their investment portfolios are at the very least not increasing deforestation. However, it is not clear to what extent policies are applied, as many are still considered to be recommendations rather than requirements, or what the consequences of non-compliance are due to a lack of transparency and reporting.

According to Forest 500, few of the 150 financial institutions linked to those companies with the greatest influence over the global palm oil, soy, timber, and cattle supply chains are actively addressing deforestation risks in their portfolios.⁵⁸ Yet, more than one-third of financial institutions have made commitments to removing deforestation associated with at least one of these commodities. Half of these commitments specifically refer to the protection of forest types with high ecological value, such as natural, primary, intact, and/or High-conservation-value (HCV) tropical forests, but in most cases, these policies do not set requirements but only encourage clients to engage in such activities.⁵⁹ Many financial institutions also still provide finance to companies without any forest-related safeguards or deforestation-related commitments.

A 2015 UNEP study found that half of the 30 financial institutions assessed had policies in place to identify and manage forest risks linked to loans or investments in companies involved in the 'soft commodities' sector.⁶⁰ Almost all of the studied institutions – chosen based on the value of the assets under their management, selecting among different typologies of financial institutions to provide

⁵⁶ We consider forest-risk commodities to be those driving deforestation such as palm oil, pulp, cattle, soy, cocoa, and coffee.

⁵⁷ Climate Focus analysis based on FAOSTAT data for gross capital stocks in agriculture, forestry and fishing, retrieved from <http://www.fao.org/faostat/en/#data/CISP>. Cumulative 2010-2015. Gross capital stocks are a proxy for private investment and provide an estimate of the value of assets held by the producer. For additional information see http://fenixservices.fao.org/faostat/static/documents/RM/CS_e.pdf.

⁵⁸ Data from 2016. Forest 500 is an international rating agency that publishes yearly rankings of those governments, companies, and financial institutions that have the greatest impact on forest risk commodity chains. Forest financial institutions are selected and ranked on the basis of their deforestation policies, i.e. institutions with commitments related to zero-deforestation, specific commodities, or the protection of untouched forests. Selected institutions either invest directly or at risk of investing in or lending to companies engaged in forest risk commodity supply chains.

⁵⁹ MacFarquhar, C., Ward, F., Bregman, T., & Lake, S. (2016). *Sleeping giants of deforestation: The companies, countries and financial institutions with the power to save forests*. The 2016 Forest 500 results and analysis. Oxford, UK: Global Canopy Programme.

⁶⁰ United Nations Environment Programme. (2015). *Bank and investor risk policies on soft commodities*.

a representative sample – publicly report progress in implementing relevant sustainability policies, although many do not disclose detailed information or progress-monitoring of clients. More than a third (37 percent) of the institutions evaluated specifically refer to legality in their policies. However, most companies include the requirement only in their agreements with the client rather than in public documents. Thirteen percent of the financial institutions assessed had also developed financial services and products designed to promote the production and trade of sustainable commodities.

In the Asia-Pacific region, *Forestsandfinance.org's* 2016 summary shows that of the 28 banks most involved in the provision of financial services to forest-risk sectors, more than half have published a specific safeguard policy or ESG guidelines.⁶¹ The coverage of such ESG policies, however, is often limited. Only a small share of banks applied the policy to their whole portfolio and all clients within a company group. About one-third of companies required independent assessments – at least for some clients – such as certification or participation in covenants. Few of the banks instituted specific rules, such as a prohibition on the degradation of HCV, high carbon stock forests, or protected areas, while about one fifth had similar implicit rules through their certification requirements.

Few banks and investors disclose actions to be taken against clients that are in violation of policies and guidelines. Divestment, or the removal of capital, can send a strong message to other clients. Norges Bank Investment Management (NBIM) engages with clients to improve their sustainability performance but also has a divestment strategy. NBIM manages Norway's Government Pension Fund Global, the world's largest sovereign wealth fund, with USD 1 trillion in assets under management, which recently dropped 11 companies because of their involvement with deforestation risk.⁶² Similarly, HSBC states in their policy that contracts with customers will be ended if standards are not met.⁶³ ASN Bank avoids investing in palm oil, soy and beef producers altogether.

Industry initiatives and shareholders can accelerate the uptake of safeguards and ESG guidelines by producer companies. Investors, for example, have put pressure on agribusiness companies to address forest risks through shareholder resolutions. Between 2011 and 2017, 13 investors filed 50 relevant resolutions with US manufacturers and retailers, calling on them to eliminate deforestation in forest-risk supply chains and, in some cases, resolving to adopt specific policies and progress reporting.⁶⁴ Multi-stakeholder partnerships can help directing capital to forest-friendly investment opportunities (Box 11).

Since 2016, 12 banks have committed to the 'Soft Commodities' Compact, an initiative by the Banking Environment Initiative (BEI) and the Consumer Goods Forum (CGF) with the goal of achieving transparency in the financial sector regarding the sustainability of supply chains (Box 11). While a few banks are implementing policies that align with the Compact, none currently report on progress toward the Compact's goals. In line with this commitment, in February 2017 HSBC announced its new "No Deforestation, No Peat, No Exploitation" policy. The policy addresses all client companies that are involved in the palm oil sector. Moreover, it acknowledges the high risk involved in the agricultural commodities sector in terms of both deforestation and exploitation. Thus, the bank imposes on its customers certain standards of due diligence, varying by commodity and customer. HSBC clients are, for instance, required to obtain Roundtable for Sustainable Palm Oil (RSPO) certification or an equivalent to prove compliance with most of the policy's requirements. The policy also covers soy, cattle ranching, rubber, and wood in a more limited way.

Within the same framework, Standard Chartered Bank published a position paper supporting a sustainable palm oil industry, in which it establishes the requirement for its clients involved in the palm oil sector to become members of the RSPO and publicly commit to the "No Deforestation, No Peat, No Exploitation" policy by December 2018.⁶⁵ A new policy specific to palm oil-related clients

⁶¹ Rainforest Action Network, Tuk Indonesia, & Profundo. (2016). *Bank Policy Assessment Summary*. Retrieved from <http://forestsandfinance.org/wp-content/uploads/2016/09/webMatrixEnglish.pdf>

⁶² Gaworecki, M. (2016, March 9). World's largest sovereign wealth fund just dropped 11 companies over deforestation [News article]. *Mongabay*. Retrieved from <https://news.mongabay.com/2016/03/worlds-largest-sovereign-wealth-fund-just-dropped-11-companies-over-deforestation>

⁶³ United Nations Environmental Programme. (2015).

⁶⁴ Ward, F., Bregman, T., & Lake, S. (2017). *Investor concern for forests: Can shareholders prompt companies to take action?* Oxford: Global Canopy Programme

⁶⁵ Standard Chartered. (n.d.). *Standard Chartered position statement: Palm oil*. Retrieved from www.sc.com/en/resources/global-en/pdf/sustainability/Palm_Oil_Position_Statement_updated.pdf

was also implemented by BNP Paribas in spring 2017, following the lead of HSBC and Standard Chartered. The policy emphasizes support for smallholders and clearly distinguishes requirements and priorities between upstream and downstream companies, reiterating the need for obtaining RSPO certification.⁶⁶ Other signatory banks are in the process of adapting to BEI standards of transparency in their path toward zero deforestation supply chains.

Box 11: Collaborative partnerships to support the greening of investments

The **Banking Environment Initiative** (BEI) is a group of 12 large banks with over USD 10 trillion in assets that works toward transforming how corporate value chains are financed. As one of its key initiatives, the BEI joined forces with the **Consumer Goods Forum** (GCF), a partnership of more than 400 global consumer goods companies committed to achieving zero net deforestation in supply chains by 2020. BEI and GCF have developed a '**Soft Commodities Compact**' to lead the banking industry toward achieving this goal. So far, 10 banks have adopted the Compact, which includes two pledges:

1. *Financing the transformation of supply chains*: member banks will make all reasonable efforts to investigate how they can finance the growth markets of soft commodities (palm oil, beef, timber, and soy) to achieve zero net deforestation without damaging companies' business models
2. *Raising industry-wide banking standards*: member banks will align their services with the relevant procurement policies implemented by the CGF in order to allow for the development of new market norms.

The initiative also offers guidance for Key Performance Indicators (KPIs) to be considered when banks report on progress through 2020 on their websites, including:

- KPI 1: Participating bank has published details of its approach to supporting the Soft Commodities Compact
- KPI 2: Percentage of the bank's customers in each relevant soft commodity supply chain with all of their operations covered by a time-bound plan to achieve compliance with the bank's approach to supporting the Soft Commodities Compact by 2020
- KPI 3: Percentage of the bank's customers' production or processing operations in each relevant soft commodity supply chain that has been verified as being compliant with the bank's approach to supporting the Soft Commodities Compact

The **UNEP Finance Initiative** is a partnership between the United Nations Environment Programme and the global financial sector with the aim of understanding today's environmental challenges and actively participating in addressing them. The initiative's reach covers a wide range of sectors, from banking to investment, to climate change, ecosystems, and human rights. Across all activities, there is a strong focus on policy – at both the national and international levels – and on promoting the involvement of the financial sector in country-level dialogues and in global action such as climate negotiations.

In 2012, the UNEP Finance Initiative, together with the Global Canopy Programme, launched the **Natural Capital Finance Alliance**, a public-private partnership with the aim of integrating natural capital awareness into financial services and products in order to include them within the entire financial cycle. To achieve the declaration's goals, the signatories have also developed a roadmap to providing financial institutions and stakeholders with the tools to incorporate natural capital considerations in all relevant products and services. Member banks are working to integrate natural capital related risks into their financial metrics along the four pledges established in the Natural Capital Declaration:

- Raise awareness over the interdependence of natural capital risk and financial products and services

⁶⁶ BNP Paribas. (n.d.). *Corporate social responsibility: Sector policy- palm oil*.

- Support the development of relevant methodologies to facilitate this process
- Join efforts toward the establishment of a global consensus for the integration of natural capital into private sector activities
- Collaborate with an International Integrated Reporting Committee to build consensus around the development of Integrated Reporting (e.g. include natural capital into a company's wider definition of resources)

In 2015, the Natural Capital Finance Alliance launched the **Soft Commodity Forest Risk Tool**, an analytical framework that enables banks to identify possible risks of deforestation related to soft commodities (cattle, palm oil, soy) for a client in a specific area or region of interest and to understand the impact that this might have on relevant investments. This allows financial institutions and stakeholders to develop better commodity risk policies, while exploring opportunities linked to the relevant supply chains, such as supporting sustainable production through fiscal products and services.

The UNEP Finance Initiative, in partnership with the Global Footprint Network, developed a methodology titled "**Environmental Risk in Sovereign Credit**" to establish metrics for the quantification of natural resources and environmental risks for investment decisions. Based on research in pilot countries, in a first phase, risk profiles were condensed into four areas and later tested to develop the tool. The four areas include a resource balance (ratio of bio-capacity to ecological footprint), risks related to trade (exposure to natural resource price volatility and to supply disruption) and degradation (exposure to declining productivity of ecological harvesting as a result of overharvesting of resources), and financial resilience.

INDICATOR 8.2.2: Investments in sustainable commodity production and conservation

The private sector is presented with the opportunity to not only scale up investments but also work with governments to develop appropriate policy and legislative settings that ensure a shift of finance flows toward investment with environmental benefits. Despite important growth in the impact investment relevant to forests, the magnitude remains marginal compared to the much larger flow of grey private investments.

Impact investments in forest-relevant sectors

Trends show a small but growing share for forest-relevant impact investments. Impact investors seek environmental and social benefits in addition to returns. Recognizing the potential for significant returns, private sector investors are increasingly interested in projects that have social or environmental benefits, such as in the sustainable forest and land-use sectors.⁶⁷ According to Forest Trends, the amount of private capital committed to three areas – sustainable food and fiber production, habitat conservation, and water quality and quantity protection – grew by 62 percent in just two years.⁶⁸ Since 2004, close to USD 2.7 billion of capital has been committed in sectors relevant to green finance in Latin America, Asia, and Africa.⁶⁹ Globally, USD 3.3 billion has been committed to sustainable investment projects in forest-relevant subsectors since 2009. The large majority of these commitments are in sustainable agriculture and forestry projects (Figure 7).⁷⁰ Finally, while much of the capital already raised has yet to be disbursed, investors reported that they intend to deploy much of the un-invested capital within the next two years.⁷¹

⁶⁷ EKO Asset Management Partners & The Nature Conservancy. (2014). *Investing in Conservation: A landscape assessment of an emerging market*.

⁶⁸ Forest Trends estimates that they captured about one-third of total activity.

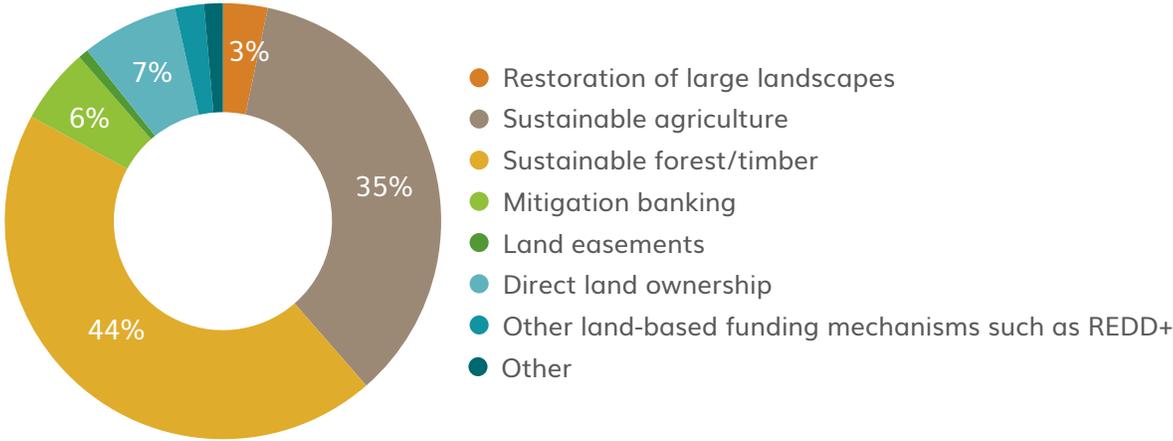
⁶⁹ Sustainable food & fiber and habitat conservation are taken to be forest-relevant categories. Commitments were also calculated cumulatively until 2015; Excluding North America, Europe and Oceania.

⁷⁰ Cumulative from 2009-2015 since it was not possible to disaggregate.

⁷¹ Hamrick, K. (2016).

High costs and a lack of immediate and quantifiable impact metrics make investment challenging. Actors face two main barriers in catalyzing and scaling up impact investment on land-use. The first is mainly related to the weakness of capital markets in tropical forest countries, where finance is often unavailable. When it is, costs tend to be high. While key to ensuring desired outcomes, proper monitoring and evaluation add to these costs. The second obstacle is one that is deeply entrenched within the nature of financial markets themselves: some land-use investments bring low returns and high risks – or are at least perceived that way – which strongly discourages individuals and companies from engaging in them.⁷² Efforts to raise awareness on the pressing need to face the land-use challenge are hindered by the costs and risks that these projects entail. Average costs for forest rehabilitation projects in developing countries range between USD 1,000 and USD 3,000 per hectare.⁷³ Within this context, private entities make up 80 to 90 percent of investment in the sector, suggesting a need for public-private cooperation to bridge investment barriers.⁷⁴

Figure 7: Green private capital committed globally (USD 3.3 billion) in forest-relevant subsectors (2009-2015)



Sources: Climate Focus analysis based on Hamrick, K. (2016). State of private investment in conservation 2016. A landscape assessment of an emerging market. Washington, DC: Ecosystem Marketplace.
 Notes: Cumulative commitments (2009-2015). It was not possible to disaggregate annual data.

However, a number of existing pilot investments prove the viability of sustainable investments, in particular in sustainable intensification and forest management and restoration. Through these models, sustainable impact investment funds and public-private partnerships provide support for projects with a positive impact on the environment (Table 6). The Althelia Climate Fund has provided nearly USD 13.6 million in capital to the Novo Campo sustainable beef project in Brazil.⁷⁵ While this first round of investment is intended to demonstrate proof of concept, a second round is anticipated for the project to reach scale throughout the region. Another example of successful impact investment is The Nature Conservancy’s program, The Conservation Note, which helps channel capital to projects with high environmental returns.⁷⁶ Other programs are also backed by multiple private investors. Initiative 20x20 is a project which set out to bring 20 million hectares of degraded land into restoration by 2020, a target which has been exceeded already.⁷⁷ Contributors include Terrabella, Moringa, the Althelia Climate Fund, and the Sustainable Land Management Partners. Such projects can inform knowledge and transparency alongside intermediate steps, such as building investment track records, providing risk-mitigation instruments, and targeting technical assistance to projects.

⁷² Girling, A., & Bauch, S. (2017).
⁷³ IUCN & WRI (2014). *A guide to the Restoration Opportunities Assessment Methodology (ROAM): Assessing forest landscape restoration opportunities at the national or sub-national level*. Gland, Switzerland: International Union for Conservation of Nature.
⁷⁴ United Nations Framework Convention on Climate Change. (n.d). *Financing climate change action. Investment and financial flows for a strengthened response to climate change* [Fact sheet].
⁷⁵ The original investment was EUR11.5 million and converted to USD using current prices; Althelia Ecosphere. (n.d). Amazon Sustainable Beef. Retrieved from <https://althelia.com/investment/amazon-sustainable-beef/>
⁷⁶ The Nature Conservancy. (2016). *Invest in nature* [Conservation note]. Arlington, Virginia: The Nature Conservancy.
⁷⁷ Initiative 20x20 is supported by the World Resources Institute (WRI), International Center for Tropical Agriculture (CIAT), Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), and the International Union for Conservation of Nature (IUCN).

Table 6: Examples of public-private or private impact investment funds

NAME	SUPPORTER	DESCRIPTION OR OBJECTIVE	COMMITMENTS
andgreen.fund*	IDH and NICFI	Aims to protect over 5 million hectares of tropical forest and peatlands by 2020 by triggering USD 1.6 million in private capital investment with a USD 400 million fund capitalization target.	Initial commitment of up to USD 100 million by NICFI, to fund more than 20 forest protection projects globally, while catalyzing private investments up to four times more the Fund's investment.
Ecobusiness Fund†	KfW and Conservation International	Public-private partnership that provides loans to qualified local financial institutions that lend the money to eligible borrowers (e.g. holders of recognized certifications or those making improvements in line with conservation and biodiversity goals).	Initial commitment of EUR 17 million by the German Federal Ministry for Economic Development and Cooperation to enable Latin American businesses to invest in the protection of biodiversity and sustainable use of natural resources (e.g. through forestry, fishing, and agriculture).
Althelia Climate Fund‡	Althelia Ecosphere	Public-private partnership that focuses on beef and palm oil that invest in projects to reduce deforestation, safeguard biodiversity, mitigate climate change effects, and provide fair and sustainable lives to local communities, while granting investors a fair return on capital.	Initial commitment of EUR 60 million to deliver investments for competitive projects addressing GHG reductions, focusing on sustainable land use and funds for ecosystem services (e.g. REDD+ projects)
EcoEnterprises Fund§	TNC	Partnership of financial institutions that offer guidance to small and growing businesses to improve their financial, social and environmental performance. To date, about 8 million ha were preserved thanks to the impact of the Fund.	Total asset under management USD 26 to 50 million. The focus of impact investment is on conservation of natural resources, sustainable land use, and development of small and medium businesses in Latin America.
Moringa¶	Edmond de Rothschild Private Equity, ONF International	Public-private partnerships that aims to provide financial returns for both investors and communities in the area, while developing land-use resilience.	Initial commitment of EUR 51.4 million.‡ Aim to invest EUR 4-10 million per project, creating stable and profitable agroforestry projects that can access both the national and international market.
Partnerships for Forests**	UK Department for International Development	Provides grants and technical assistance to incubate market-ready 'Forest Partnerships' between companies, public sector actors, and civil society that catalyze investment in forests and sustainable land use. Currently, partnerships are being supported in East Africa, West and Central Africa, and South East Asia.	Partnerships for Forests has a commitment to leverage 3x of private investment in forests and sustainable land use by 2020, equating to £150 million.

* IDH, the Sustainable Trade Initiative. (n.d.). *Tropical forest and agriculture focus fund*. Retrieved from www.idhsustainabletrade.com/uploaded/2017/01/A-Tropical-Forest-and-Agriculture-focused-fund.pdf

† eco.business Fund. (n.d.) *About the eco.business Fund*. Retrieved from www.ecobusiness.fund/about-the-fund

‡ Althelia Ecosphere. (n.d.) *Althelia Climate Fund*. Retrieved from <https://althelia.com/althelia-climate-fund>

§ EcoEnterprises Fund. (n.d.). *History*. Retrieved from www.ecoenterprisesfund.com/index.php/about

|| Impact Assets. (n.d.). *Impact Assets50: EcoEnterprises Fund*. Retrieved from www.impactassets.org/ia50_new/fund.php?id=a01E000000TzReWIAV

¶ Moringa Partnership. (n.d.). *Vision*. Retrieved from www.moringapartnership.com/vision

Poulsen, M., Bourguignon, H., el Hachem, J., & Perrier, M. (2013). *The Moringa SCA (SICAR) a pioneering agroforestry sector investment vehicle achieves first closing* [Press release].

** Partnerships for Forests. (n.d.) *Catalysing investments in forests and sustainable land use*. Retrieved from <https://partnershipsforforests.com>

Collaborative approaches are required to promote private investment

Accelerating the rate of private capital deployment requires deforestation-free investments, good governance, and smart public subsidies. Blended financing models such as the GCF's Private Sector Facility can mobilize private sector action and resources by using a mix of grant and non-grant financing to lower the risks to investment related to market failure. Additionally, the public sector has a range of tools at its disposal to reduce risks and enhance the relative attractiveness of deforestation-free investments (Box 12). These include:

- Risk-mitigation instruments such as guarantees, insurance, public co-investment, etc.
- Providing subsidized or free technical assistance to producers and companies
- Providing fiscal incentives for deforestation-free investment
- Forming strategic partnerships with private investors to demonstrate proof of concept
- Taxing environmentally degrading activities
- Enhancing financial sector transparency
- Investing in law enforcement or legality
- Providing clear land-use rights and tenure
- Promoting jurisdictional⁷⁸ or landscape initiatives (Indicator 9.2.1) that take a multi-stakeholder approach to land-use planning while considering social, economic and environmental objectives

Government-subsidized rural credit can also support public policy goals, such as forest conservation. It is one of Brazil's traditional ways of supporting agriculture and is used to finance short-term working capital, investment, and commercialization of rural production. In 2008, the Brazilian National Monetary Council made rural credit in the Amazon biome conditional on proof of compliance with environmental regulation, legitimacy of land claims, and legality of rural operations. Credit is distributed through government banks and covers one-third of the Brazilian agricultural sector's annual financial needs. Any change and modification to rural credit programs greatly influences the country's agricultural sector. A 2013 study by the Climate Policy Initiative showed that this action prevented the clearing of more than 270 thousand hectares of forest, representing a 15 percent decrease in deforestation between 2008 and 2011.⁷⁹ Similarly, in Vietnam the government links logging bans with reforestation incentives.⁸⁰

Green bonds are another means of raising finance for forest emission reduction activities. Green bonds work like normal bonds with the added value of requiring positive impact on the environment. The green (and climate) bonds' market gained significant momentum in 2015, with USD 42 billion issued to relevant projects.⁸¹ In 2016, the amount doubled, reaching a record issuance of USD 90 billion.⁸² While energy-related green bonds are well-established in the investment market, to date, the dedicated share of land-use bonds is still proportionally very small. In 2015, of the USD 42 billion total, only 2.2 percent of bonds were dedicated to agriculture and forestry.⁸³ The Climate Bonds Initiative, an international organization with the goal of mobilizing USD 100 trillion on the bond market for climate change solutions, has developed standards and certifications for bonds with related tools to guide investors and governments to prioritize investments that can help tackle climate change.⁸⁴

⁷⁸ At the level of a state or biome or otherwise defined area.

⁷⁹ Assunção, J., Gandour, C., Rocha, R. [Romero], & Rocha, R [Rudi]. (2013). *Does credit affect deforestation? Evidence from a rural credit policy in the Brazilian Amazon.*

⁸⁰ Lee, D., & Pistorius, T. (2015).

⁸¹ Climate Bonds Initiative. (n.d.). *Explaining green bonds.* Retrieved from www.climatebonds.net/market/explaining-green-bonds

⁸² Girling, A., & Bauch, S. (2017).

⁸³ Climate Bonds Initiative. (2016). *2015 Green bond market roundup.* Retrieved from www.climatebonds.net/files/files/2015%20GB%20Market%20Roundup%2003A.pdf

⁸⁴ Climate Bonds Initiative. (n.d.). *About us.* Retrieved from www.climatebonds.net/about

Box 12: Facilitating private investments through public programs

Strategic Partnership: Oromia Forested Landscape Program – Ethiopia. The Oromia Forested Landscape Program is a jurisdictional REDD+ program in the Ethiopian state of Oromia supported by the BioCarbon Fund's Initiative for Sustainable Forest Landscapes (ISFL). The BioCarbon Fund joined forces with the International Finance Corporation and Nespresso in 2016 to provide technical assistance for improving the economic and environmental sustainability of coffee plantations. The partnership runs through Nespresso's AAA Sustainable Quality Program, already active in the region and in other African states. The IFC will channel USD 3 million into the Nespresso Sustainability Innovation Fund, and the ISFL will contribute a further USD 3 million.* Through this, the AAA Sustainable Quality Program aims, within four years, to increase productivity by 50 percent by helping 20,000 smallholder coffee farmers in the region.

Partial Risk Guarantees. In 2014 the United States Agency for International Development (USAID) approved a USD 133.8 million loan portfolio guarantee to Althelia Climate Fund – the leading investment fund for REDD+ at the time. By doing this, USAID assumed 50 percent of risks in Althelia's REDD+ investments in the attempt to promote large-scale private sector investment in projects related to climate change mitigation and combating deforestation. This loan had a double effect: it helped Althelia finance smaller projects led by businesses that contributed to sustainable land management and forest conservation, and it functioned as guarantee for Althelia to raise over USD 150 million by December 2014.

Provision of Technical Assistance: Sustainable Cocoa Production Program – Indonesia. With a financial base of USD 60 million, the program aims to support smallholders by providing technical support through training for capacity building, market access, and technology transfer. Technical incentives mainly included training, demonstrations, and ongoing technical support to farmers. Financial support was provided by bridging the gap between banks and farmers to provide loans for rehabilitation and maintenance. Launched in 2012, this program is still the largest public-private partnership of this kind in Indonesia. Funds are provided by the Swiss State Secretariat for Economic Affairs and the Millennium Challenge Account for Indonesia. The program is in partnership with 10 local and multinational companies from the cocoa and chocolate sector, with the goal of reducing emissions from the cocoa sector by 30 percent and increment farmer household income from cocoa by 75 percent. Among the private companies taking part in the program are Cargill, Mars, Mondelez, and Nestle.

* Price, E., & Sud, N. (2016). IFC, Nespresso, BioCarbon Fund help coffee farmers boost productivity and climate resilience in Ethiopia and Kenya [Press release].

GOAL 9: Reward countries and jurisdictions that, by taking action, reduce forest emissions – particularly through public policies to scale-up payments for verified emission reductions and private-sector sourcing of commodities

CRITERION 9.1: Public payments for verified emission reductions

The first criterion on public payments assesses results-based REDD+ finance from bilateral donors and multilateral funds, and discusses national schemes for allocating results-based finance to subnational jurisdictions.

When REDD+ was first introduced in the international climate negotiations, it was largely conceived as a market mechanism and the expectation for mobilizing finance via private sector demand for carbon credits was high. In their original submission to the UNFCCC in 2005, Costa Rica and Papua New Guinea offered to take steps to reduce emissions from deforestation provided that financial incentives were put in place, "namely through fair and equitable access to carbon markets."⁸⁵ It has

⁸⁵ United Nations Framework Convention on Climate Change. (2005). Reducing emissions from deforestation in developing countries: Approaches to stimulate action. Retrieved from <http://unfccc.int/resource/docs/2005/cop11/eng/misc01.pdf>

become clear, however, that market demand for forest offsets is too low for carbon markets to supply a significant and predictable source of finance (Box 13). Over the last years, REDD+ has evolved into a mechanism relying largely on results-based REDD+ approaches supported by government-to-government transactions. Private carbon markets focus on the trade of emission reductions generated at a smaller scale (e.g. project level).

Box 13: Carbon market transactions on voluntary and compliance markets

Through the trade of verified emission reductions (VERs), carbon credits, or offsets generated in the forestry sector (measured in tons of carbon dioxide), carbon markets provide platforms for economic actors to purchase credits to meet both voluntary and compliance targets for climate change mitigation. To date, average annual volumes of carbon credits traded – roughly 6 MtCO₂e in the compliance market* and 22 MtCO₂e in the voluntary market† – represent only a small fraction of global annual emissions from deforestation – 2,270 MtCO₂e‡, though emission reductions from forest projects are still the most demanded type of voluntary carbon credits.§ Acceptance in compliance markets has been low and the volume of forest credits traded is considerably smaller, with the large majority of purchases coming from the Australian Emissions Reduction Fund in 2016.

With the entry into force of the Paris Agreement in 2016, compliance and voluntary markets could provide a collaborative approach to implementing country NDCs under Articles 5 & 6, where VERs are linked to subnational and national reference levels and national forest monitoring systems.|| Parties can look to existing mechanisms, such as the Californian cap-and-trade program and the European Union's Emissions Trading Scheme, to expand on the opportunity to leverage private sector resources in enabling the public sector to meet its mitigation commitments. Indeed, several countries mention the creation of their own carbon markets or linkages in approaches with other countries as a possible cost-effective means to realizing their reduction goals. Furthermore, it is widely expected that the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) under the UN International Civil Aviation Organization (ICAO) will lead to more investments in REDD+ when the pilot phase starts in 2021. A market-based approach to stemming the international aviation sector's contribution to climate change, CORSIA will mandate that international flight routes included in the scheme offset emissions above their 2020 levels beginning in 2021. To ensure the environmental integrity of the scheme, ICAO has stipulated that offsets must satisfy a number of criteria, including that they are additional, quantified, verified, permanent, and counted only once.¶

* Average for 2010-2016, and excluding volumes traded in the Australian market which only started in 2015.

† Average for 2010-2016. Note that annual volumes vary widely across the different markets.

‡ Zarin et al. (2016).

§ Goldstein, A., & Ruef, F. (2016). *View from the understorey: State of forest carbon finance 2016*. Washington, DC: Forest Trends' Ecosystem Marketplace.

|| United Nations Framework Convention on Climate Change (2015). *Adoption of the Paris Agreement, Articles 5 & 6, 21st Conference of the Parties*, Paris: United Nations

¶ Forest Carbon Partnership Facility. (2017). *Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) under the UN International Civil Aviation Organization (ICAO)*.

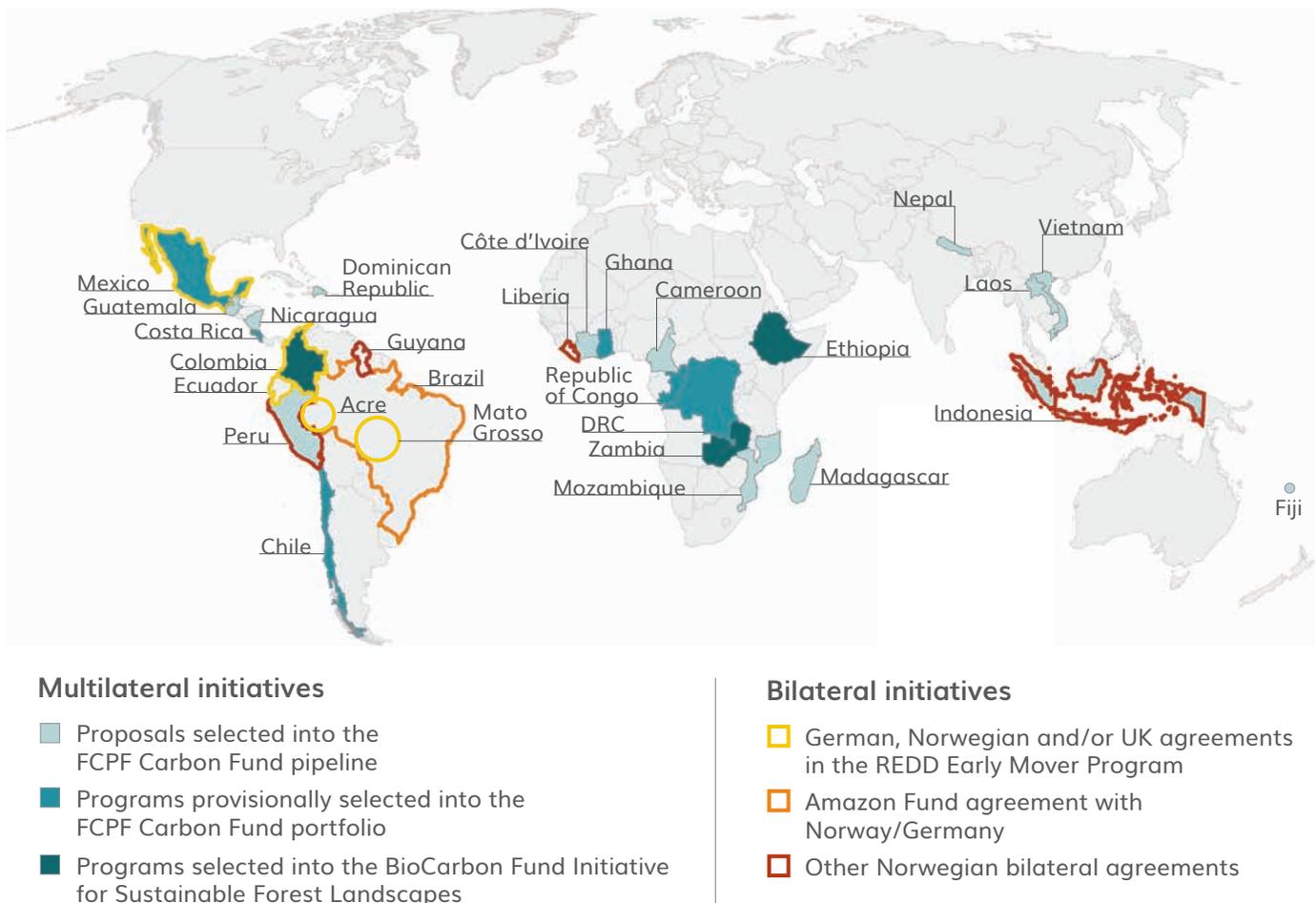
For the first indicator of this section we assess the magnitude of international payments for results-based finance for verified reductions in forest emissions. We address the following questions: How is finance distributed between developing countries with deforestation? Who are the main providers? Data were obtained from bilateral communications with donors and initiatives that have been tracking relevant finance (*Climatefundsupdate.org*, Forest Trends), complemented with a review of websites of REDD+ funds and literature review. In the second indicator, we provide examples of national schemes that allocate REDD+ benefits (payments or emission reductions) to subnational entities. Information related to domestic schemes was obtained from a literature review.

INDICATOR 9.1.1: International payments

Rather than supporting actions that lead to emission reductions, results-based REDD+ finance rewards and therefore incentivizes countries and jurisdictions to take these actions. Payments are only beginning to reward countries and jurisdictions that reduce forest emissions and the current magnitude of such incentives remains small compared to finance needed.

Over the last years, bilateral and multilateral initiatives have been piloting operational details to inform REDD+ implementation and results-based payments (see Table 7 and Box 14 for a summary of key features). To date, most tropical forest countries are still in the process of setting up the relevant systems and policies to access results-based finance. Payments were made only in the context of bilateral agreements with Norway's International Climate and Forest Initiative (NICFI) and the German REDD Early Movers (REM) program, mostly for historic emission reductions. In the FCPF Carbon Fund pipeline, six REDD+ programs reached the final stages for approval⁸⁶ and are currently preparing to negotiate agreements for results-based finance with the participants of the Carbon Fund. Thirteen other countries have been officially invited into the pipeline and four countries are in the pipeline of the BioCarbon Fund's Initiative for Sustainable Forest Landscapes (ISFL) (Figure 8).

Figure 8: Progress in results-based finance agreements for multilateral and bilateral initiatives



Sources: Climate Focus. (2015). Results-based Finance for REDD+: Emerging Approaches. Frankfurt, Germany: KfW.

Notes: Updated from source publication based on communications with donors.

⁸⁶ Programs were approved or provisionally approved.

Table 7: Major initiatives offering payments for verified emission reductions (see Box 7 for information on the GCF)

INITIATIVE	DESCRIPTION
Forest Carbon Partnership Facility Carbon Fund	The FCPF Carbon Fund is designed to build on countries' readiness achievements by remunerating countries through a strong performance-based payments framework for future REDD+ systems. The Carbon Fund is intended to incentivize recipient countries to achieve long-term goals of emission reductions, forest conservation, biodiversity protection, and enhancement of indigenous peoples' and forest communities' livelihoods. It pilots payments for verified emission reductions from REDD+ programs and aims to ensure that funding is disbursed among relevant stakeholders through an equitable benefit-sharing approach.
BioCarbon Fund Initiative for Sustainable Forest Landscapes	Taking a landscape approach, the BioCarbon Fund's Initiative for Sustainable Forest Landscapes (ISFL) seeks to incentivize emission reductions from the land sector, from deforestation, forest degradation, sustainable agriculture and other land use policies. Through its multilateral fund the initiative offers results-based payments to incentivize and sustain program activities. To promote sustainable and scalable models for land use, the ISFL seeks to promote public-private partnerships and has in the past organized stakeholder dialogue but also entered partnership agreements with sourcing companies. For phase 1 and 2 work, the BioCarbon Fund relies on the FCPF Readiness Fund, UN-REDD and the FIP.
Norway's International Climate and Forest Initiative	With its objectives to contribute to the international climate agreement under the UNFCCC and to promote the conservation of primary forests, Norway's International Climate and Forest Initiative (NICFI) provides funding via several channels, encompassing bilateral support to partner countries, contributions through multilateral organizations, and funding of civil societies and forest initiatives. Through bilateral support, NICFI encourages and rewards REDD+ partner countries that target quantifiable and verifiable emission reduction in the forestry sector. As it does not operate as an implementing agency, NICFI channels its bilateral contributions through partner schemes such as Germany's REM program.
REDD Early Movers program	The REM program is an initiative of German Official Development Assistance implemented by KfW on behalf of the German Ministry for Economic Cooperation and Development. It aims to promote forest conservation by providing financial support to close the pre-2020 funding gap in the current REDD+ process and targets pioneer countries or regions that have already taken the initiative to protect forests. As a results-based program, the REM supports emission reduction efforts undertaken at a national, sub-national or biome level. REM has entered partnerships with Norway and the UK, and welcomes partnerships with other donors.

Box 14: Characteristics of results-based REDD+ finance*

There are certain features that are broadly similar across the different pilot initiatives for results-based REDD+ finance. By definition, payments for REDD+ results are conditional upon verified emissions reductions, but some initiatives (e.g. NICFI in some bilateral agreements, the GCF) also reward interim milestones such as the adoption of policies. To estimate emission reductions as a result of the REDD+ program, countries or jurisdictions are asked to define a reference level against which changes of forest cover and emissions are measured. In addition, initiatives require REDD+ safeguard policies to ensure they cause no environmental or social harm. Although requirements vary, initiatives also require a certain level of planning in a program document. They also require the development of a "benefit sharing plan" that directs REDD+ finance, and financial mechanisms to set fiduciary standards and outline how finance will be spent. Initiatives also set requirements for dealing with uncertainty and risks in measuring emission reductions.

* Climate Focus. (2015). *Results-based Finance for REDD+: Emerging approaches*. Frankfurt, Germany: KfW.

Commitments by multilateral and bilateral institutions for results-based REDD+ finance amount to more than USD 4.1 billion and almost one-third of this has been disbursed - mostly to Brazil (Figure 9). Norway committed more than half of this amount, while most of the remainder was committed by more than a dozen different donors through the FCPF Carbon Fund, a recent commitment by the GCF, and the BioCarbon Fund's ISFL. Germany, Norway, and the UK also committed REDD+ finance through the REM program.

Figure 9: Results-based REDD+ commitments and disbursements by program (since 2010)



Sources: Climate Focus analysis based on data shared by NICFI and REM (since 2010), and BioCarbon Fund ISFL and FCPF Carbon Fund commitments retrieved from funds' official websites.

Notes: For bilateral donors, commitments and disbursement are based on personal communications with donors. Commitments to the FCPF Carbon Fund and BioCarbon Fund's ISFL were retrieved from publicly available documentation.

Norway has committed and disbursed the largest amount of results-based REDD+ finance – more than USD 1.1 billion – in a bilateral agreement with Brazil. In 2007, Norway pledged USD 1 billion to support efforts to stop deforestation globally. After Brazil proposed to establish the Amazon Fund as a vehicle to receive international contributions, the two governments signed a bilateral agreement for results-based finance. As Brazil has substantially reduced its deforestation rates between 2008 and 2014, the first USD 1 billion has been disbursed, and in 2015 Norway renewed its commitment, and already disbursed USD 105 million in 2016.⁸⁷ In response to the recent spikes in deforestation, Norway reported that the level of payment has been reduced, noting concerns over several controversial policies in the Amazon region.⁸⁸

The Norwegian government made additional commitments of more than USD 1.4 billion to incentivize REDD+ actions in other countries, including Indonesia (the country with the second largest loss in forest cover between 2010 and 2015), Liberia (with one of the highest deforestation rates over the same period), Guyana, Peru, and Colombia (Figure 10).⁸⁹ So far, only a small share of commitments were disbursed to Guyana. Commitments were complemented with additional funding conditional upon policy milestones as a means to further incentivize emission reductions results (e.g. in Liberia, Peru, and Indonesia).

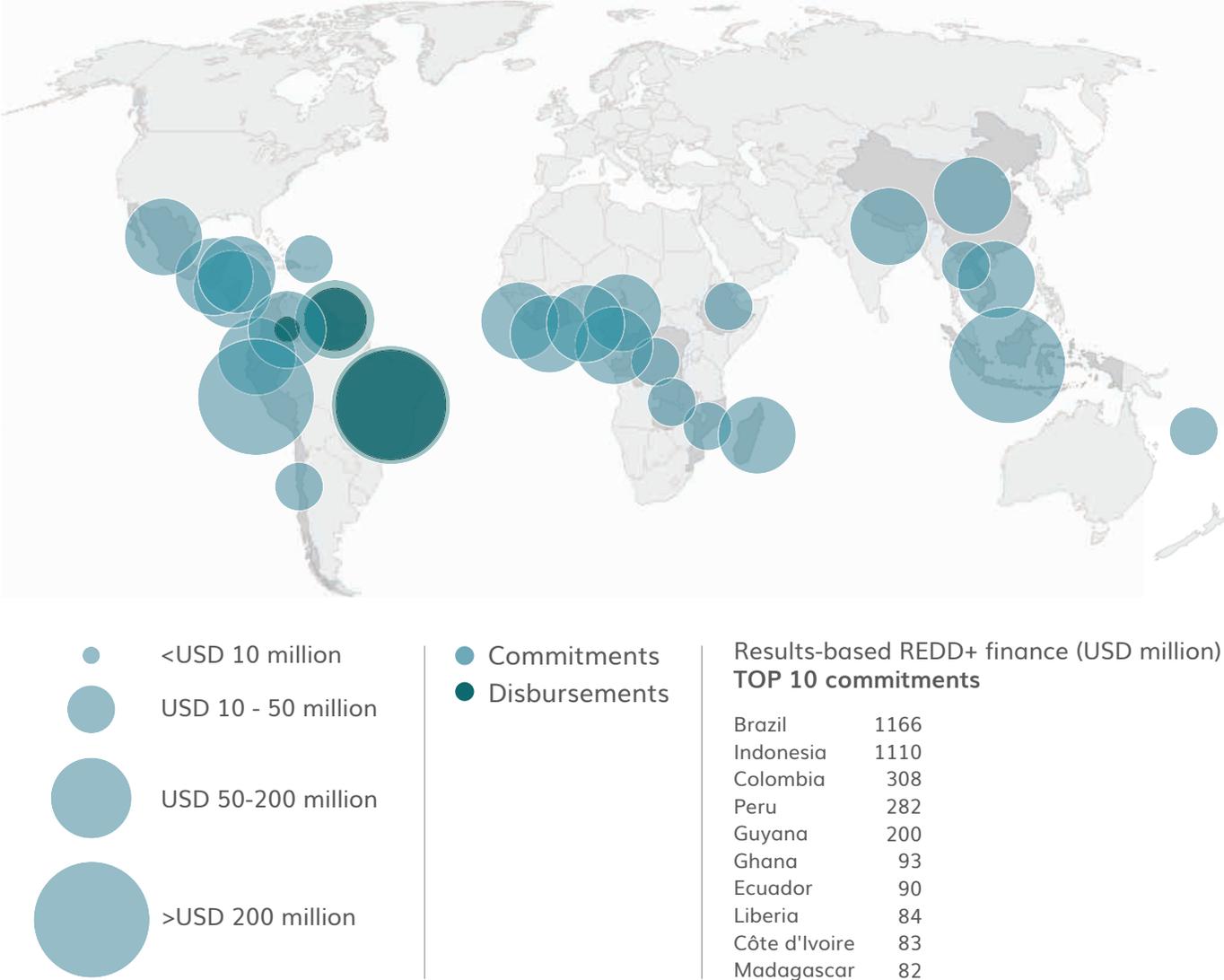
Another bilateral initiative, the REM program, funded by Germany, Norway, and the UK, has mobilized results-based commitments of USD 306 million. The REM program focuses on rewarding pioneer countries that have achieved emission reductions through past efforts. In 2010, the program made the very first transaction of results-based REDD+ finance to the Brazilian state of Acre. Since then, funds have also been disbursed to Colombia, and commitments made to Ecuador, the Brazilian state of Mato Grosso, and Mexico.

⁸⁷ Since this additional commitment was not quantified, we did not include this in the amount listed above.

⁸⁸ Carrington, D. (2017, June 22). Norway issues \$1bn threat to Brazil over rising Amazon destruction [News article]. *The Guardian*.

⁸⁹ Excluding finance provided via REM, BCF ISFL or FCPF Carbon Fund.

Figure 10: Results-based REDD+ finance commitments and disbursements by recipient country (since 2010)



Sources: Climate Focus analysis based on data shared by NICFI and REM (since 2010), and BioCarbon Fund ISFL and FCPF Carbon Fund commitments retrieved from funds' official websites.

Notes: FCPF Carbon Fund commitments are based on Letters of Intent signed with governments. At this stage commitments are still allocated in a competitive process, so the amount of disbursements will likely not exceed USD 868 billion.

The FCPF Carbon Fund has mobilized close to USD 686 million⁹⁰ in results-based finance from 11 donors, with the largest amounts allocated by Norway, the UK, and Germany. No finance has been disbursed, but the first countries are negotiating agreements with the FCPF Carbon Fund. The initiative's Methodological Framework for Emissions Reduction Programs and the General Conditions and Commercial Terms for Emission Reductions Payment Agreements (ERPAs) provide a standardized operational process for FCPF transactions. Eighteen countries have signed Letters of Intent for the sale of emission reductions and six countries are preparing for ERPA negotiations.

The BioCarbon Fund's ISFL has a capitalization of USD 340 million and its donors earmarked USD 130 million for results-based REDD finance for three countries: Colombia, Ethiopia, and

⁹⁰ This is the amount available for the purchase of emission reductions. Forest Carbon Partnership Facility. (2016). Portfolio management and decisions on ER-PDs.

Zambia. In September 2017, the ISFL released program requirements to ensure that the design and implementation of programs are in line with the policy and process guidelines of the World Bank Group.⁹¹ No disbursements have been made under the ISFL.

The GCF is expected to play an important role in the future of result-based REDD+ payments. In October 2017, the GCF approved a new USD 500 million pilot program for results-based finance. Based on a recent board decision, the GCF adopted a framework for REDD+ results-based finance (see Box 7 under Indicator 8.1.1).⁹²

In December 2015, Germany, Norway, and the UK announced a REDD+ financing pledge of USD 5 billion by 2020.⁹³ This pledge includes USD 339 million to the FCPF Carbon Fund, USD 100 million for Colombia's REDD+ program, and Norway's continued support for reduced deforestation in Brazil. The remainder of the pledge may or may not be used for results-based finance.

INDICATOR 9.1.2: Domestic payments

We also looked at domestic mechanisms that channel payments to states or regions for emission reductions results. For this indicator, we present a case study of India's tax reform, which incentivizes coordinated efforts in forest cover protection and restoration, and a case study on the Brazilian allocation of international REDD+ finance.

Considered an unprecedented domestic effort in result-based finance for forest conservation,⁹⁴ India has reformed its tax proceed devolution systems to incentivize coordinated efforts in forest cover protection and restoration. The Finance Commission recommended assigning 7.5 percent of the share of tax receipts devolved to states based on the criteria of forest cover.⁹⁵ Considering that almost a quarter (77 million hectares) of India's land area is forestland and that more than 40 percent of this land is subject to deforestation and degradation,⁹⁶ the new devolution formula serves as a promising fiscal tool for mitigation.

The federal government of Brazil decided to allocate the right to sell REDD+ emission reductions to states based on deforestation and forest cover. Led by the National REDD+ Commission, the federal government has taken steps in forging a consensus-based decentralized arrangement for accessing and using international funds for REDD+ in the Amazon biome. In consideration for federal policies and actions to reduce deforestation, the federal government will be entitled to 40 percent of all emission reductions achieved in each relevant period. The states, in turn, will be entitled to the remaining 60 percent. This 60 percent will then be distributed among states based on: (i) each state's proportional contribution to reducing emissions from deforestation in the relevant period; and (ii) each state's total native forest area.⁹⁷

In addition, national and subnational governments in Brazil achieved consensus on the eligibility criteria for private entities wishing to access results-based REDD+ funds.⁹⁸ Discussions are also on-going on the relevant guidance for the use of these funds by Amazon states and federal entities, including, for instance, the need to employ funds in a manner that contributes to further emission reductions, promotes the implementation of the country's NDC and REDD+ Strategy, and reinforces REDD+ safeguards.

⁹¹ BioCarbon Fund ISFL. (2017). *ISFL Emission Reductions (ER) Program Requirements*.

⁹² Green Climate Fund. (2016). *Decisions of the board – thirteenth meeting of the Board, 28-30 June 2016; World Wildlife Fund for Nature. (2017). Green Climate Fund approves historic \$500 million for forest sector results-based payments* [News release].

⁹³ Lima-Paris Action Agenda. (2015). *Partnerships, progress to protect & restore forest* [Press release].

⁹⁴ Busch, J. (2015, July 27). *India's big climate move* [Blog post].

⁹⁵ Ministry of Finance, Government of India. (2014). *Report of the fourteenth finance commission*.

⁹⁶ Sharma, V., & Chaudhry, S. (2013). An overview of Indian forestry sector with REDD+ approach. *ISRN Forestry*, 1–10.

⁹⁷ Resolution 6/2017. (2017). National REDD+ Commission, Brazil.

⁹⁸ Resolution 7/2017. (2017). National REDD+ Commission, Brazil.

CRITERION 9.2: Support for supply chain efforts to incentivize reduced forest emissions

While quantitative data are limited, this section provides a discussion and overview of the main jurisdictional and landscape approaches that are currently being implemented. Such efforts take an integrated approach to landscape planning and usually consider social, economic and environmental objectives. Jurisdictional approaches differ from similar multi-stakeholder efforts in that they are aligned with sub-national or national political jurisdictions and often address a single sector or objective.⁹⁹

INDICATOR 9.2.1: Public and private sector support for jurisdictional/preferential sourcing initiatives in the context of zero-deforestation commitments

Though these approaches are still nascent, jurisdictional and preferential sourcing initiatives provide an opportunity to bring actors from different sectors together to realize zero-deforestation commitments, avoid potential leakage, and efficiently scale implementation.

Of the 34 jurisdictions with active programs, the geographic locations are spread quite evenly between Asia, Latin America, and Africa. Many of these programs are still in their early stages. A report commissioned by TFA2020 points to about 61 jurisdictional programs, out of which 34 have active sustainable development strategies or programs that are operating in tropical forest regions or focused forest-risk commodities (palm oil, pulp, cattle, soy, cocoa, and coffee) (Figure 11).¹⁰⁰ These jurisdictions also represent a significant share of the total supply of the key commodities they produce. Regions with relevant jurisdictional programs are responsible for 41 percent and 34 percent of global soy and palm oil production, respectively.¹⁰¹ Production shares of other commodities are lower, but still substantial. Nearly half of the jurisdictional programs have begun implementation. This means they have moved beyond “developing plans” of designing and ratifying their strategies, and “finalizing plans” of capacity building and developing pilot projects expanded implementation to the jurisdictional scale.

Public and private sector support for jurisdictional programs and other similar approaches may come in different forms. Public sector support for these initiatives comes mainly in the form of institutional and technical assistance for design and implementation. In addition, a few results-based finance transactions were concluded or are currently under negotiation between bilateral international donor countries and more advanced jurisdictions, such as the Brazilian states of Acre and Mato Grosso (Indicator 9.1.1).

Although the actual flow of private resources remains small, platforms to support on-the-ground sustainable supply chain efforts are gaining traction. A growing number of multi-stakeholder initiatives are being designed to enable greater participation of businesses to support production-side measures and ensure zero-deforestation supply chains (Annex I). Forums such as TFA 2020 provide a valuable platform to facilitate dialogues surrounding sourcing issues and barriers to the implementation of sustainable efforts, create consensus, and share best practices. Another example is Mato Grosso’s Produce, Conserve, Include (PCI) strategy, which brings together government departments, businesses, rural associations, and non-profit organizations to align their deforestation interventions and promote sustainable forest management and agricultural development in the region.

Similarly, there is an increasing number of specific partnerships and financing vehicles dedicated to leveraging private finance for sustainable land-use practices at jurisdictional and landscape levels (Table 8). A scoping study carried out by EcoAgriculture Partners in 2014 identified 235 initiatives and mechanisms devoted to enabling finance or undertaking investment associated with landscape management approaches.¹⁰² Around 80 of these comprised public-private or private resources, most of which were dedicated to land use, conservation, restoration, and sustainable agriculture.

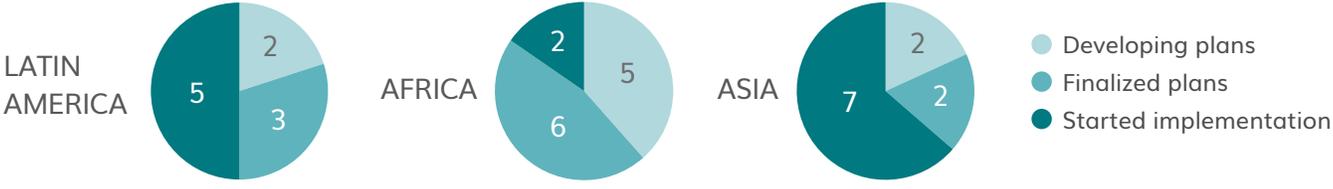
⁹⁹ WWF. (2016). *WWF discussion paper: Jurisdictional approaches to zero deforestation commodities*. WWF-US

¹⁰⁰ AlphaBeta. (2017). *Supporting jurisdictional leadership in net zero deforestation through sustainable value chains: Opportunities for TFA 2020*. Commodities covered are palm oil, soy, cattle, pulp, cocoa, coffee

¹⁰¹ AlphaBeta. (2017).

¹⁰² Clarvis, M.H. (2014). *Review of Financing Institutions and Mechanisms, in Financing Strategies for Integrated Landscape Investment*. Seth Shames, ed. Washington, DC: EcoAgriculture Partners, on behalf of the Landscapes for People, Food and Nature Initiative.

Figure 11: Jurisdictional programs in tropical forest regions and focused on forest-risk commodities by stage of program development



Sources: AlphaBeta, (2017). Supporting jurisdictional leadership in net zero deforestation through sustainable value chains: Opportunities for TFA 2020.

More recently, IDH announced the 'andgreen.fund' which aims to trigger USD 1.6 billion in private investment in deforestation-free agriculture by crowding-in co-investors and making credit lines available under flexible terms (Box 15). A full list can be found in Table 6 under Indicator 8.2.2.

Jurisdictional certification can help mobilize supply chain finance. While preferential sourcing commitments remain fairly limited, increased interest in jurisdictional certification programs points toward progress and can pave the way for future commitments and enhance jurisdictional approaches. A small number of companies have made such promises: for example, Marks & Spencer and Unilever support production-protection agreements, which merge domestic public policy measures with international support and blended finance aligned with commercial sourcing commitments.¹⁰³

¹⁰³ Consumer Goods Forum Co-chairs. (2015). *Production protection*. Retrieved from <http://tfa2020.org/wp-content/uploads/2015/12/01122015- Produce-Protect-CGF-statement.pdf>

Table 8: Examples of public-private partnerships and blended finance mechanisms supporting jurisdictional and landscape programs

NAME	SUPPORTERS	YEAR	DESCRIPTION OR OBJECTIVE	COMMITMENTS
Landscape Fund*	CIFOR	2014	Finance a wide spectrum of projects for sustainable land use, by providing long-maturity loans.	Provide an alternative to standard mechanisms used to invest in smallholder agriculture, REDD+, and forestry projects.
Africa Agriculture Trade and Investment Fund (AATIF)†	KfW, Deutsche Bank	2011	Fund that aims to make value chains in Africa more sustainable and efficient through investment for both financial institutions and non-financial intermediaries.	USD 146 million fund. To date it has invested in three financial institutions and one non-financial intermediary.
Cocoa Life‡	Mondelez	2012	Public-private partnership for sustainable production and empowerment of cocoa farmers, in addition to commitment of the company to sustainable sourcing.	USD 400 million invested by 2022 with the objective of empowering 200,000 cocoa farmers and reaching one million community members in their sourcing areas.
Tropical Landscapes Finance Facility§	UNEP, BNP Paribas, ADM Capital	2016	Financial platform consisting of a loan and grant fund, focusing on leveraging finance for renewable energy production and sustainable landscape management in Indonesia.	N/A

* Wardell, A., & Bowie, B. (2014) *The Landscape Fund* [Concept note].

† Convergence. (2015). *Africa Agriculture and Trade Investment Fund (AATIF)* [Case study].

‡ Mondelez International. (n.d.). *Cocoa Life*. Retrieved from www.mondelezinternational.com/well-being/sustainable-resources-and-agriculture/agricultural-supply-chain/cocoa

§ IISD. (2016). *UN Environment, Indonesia and Partners Launch Tropical Landscapes Finance Facility*.

Box 15: New IDH fund focused on tropical forests and agriculture

IDH, the Sustainable Trade Initiative established by the Dutch government in 2009, convenes companies, governments, and public-private partnerships to achieve sustainability in international trade chains and to create positive impacts in developing countries. IDH's andgreen.fund aims to protect over 5 million hectares of tropical forests and peatland by 2020 by triggering USD 1.6 billion in private capital investments with a USD 400 million fund capitalization target. By facilitating cooperation between the Fund and private sector companies, investors, and tropical forest countries, IDH and its Fund will incentivize governments to implement strategies to responsibly produce commodities and protect forests. Launched in mid-2017 with an initial commitment of up to USD 100 million from Norway, the Fund will initially target Brazil and Indonesia and will expand its scope in the long term in accordance with jurisdictional eligibility, including strong political commitments toward reducing deforestation. While other organizations such as the Global Environment Facility, in partnership with UNEP and Unilever, have committed to invest, the Fund plans to finance more than 20 production and forest protection projects by 2020.

Jurisdictional approaches can promote action and allow for buy-in from a diverse set of actors.

According to CDP, about 82 percent of companies with commitments to reduce or end deforestation in their supply chains rely on certification schemes.¹⁰⁴ Taking a jurisdictional approach to certification places the responsibility on a broader group of actors – including governments and larger companies and not just individual farmers and smallholders – and allows costs to be shared among them. Authorities in regions including Acre and Mato Grosso in Brazil, San Martin in Peru, Seruyan and Kotawaringin Barat districts in Indonesia, Sabah in Malaysia, as well as the national government in Ecuador are among those either piloting jurisdictional programs or expressing interest in jurisdictional certifications (Box 16).¹⁰⁵

¹⁰⁴ CDP. (2016). *Revenue at risk: Why addressing deforestation is critical to business success*. Berlin: CDP

¹⁰⁵ MacIsaac, T. (2017, April 4). Jurisdictional certification approach aims to strengthen protections against deforestation [News article]. *Mongabay*.

Box 16: Jurisdictional certification in the Roundtable on Sustainable Palm Oil

Unilever, a Dutch-British multinational consumer goods company, announced in late 2015 that it would prioritize its “commodity sourcing from areas that have designed and are implementing jurisdictional forest and climate initiatives.”¹⁰⁶ By increasing the productivity of small Indonesian farm owners through a partnership with the provincial government of Central Kalimantan, Unilever is enabling increased agricultural production and the achievement of human development goals. More specifically, the partnership seeks to “certify all palm oil smallholders in Pangkalan Tiga village according to RSPO and ISPO [Indonesian Sustainable Palm Oil] principles and criteria,” assess local palm oil farmer organizations in the region, and map small palm-oil producers in the Kotawaringin Barat district. By working with the local government to limit deforestation, Unilever is leveraging its purchasing power to support small palm-oil farmers and protect forests – a key element of jurisdictional approaches to sustainable land management.

¹⁰⁶ Tropical Forest Alliance 2020. (2015). Statement from Consumer Goods Forum co-chairs, acting individually: production protection.

Concluding remarks

Achieving the goals of the Paris Agreement will require putting an immediate halt to deforestation. Developing countries need greater support to implement even more ambitious forest goals than were adopted in their NDCs. The record high in gross forest loss in 2016 signals a need for an urgent increase in action if we are to reach the core objective of the NYDF – halving deforestation by 2020 and stopping it by 2030.

While there are promising developments, finance for Goals 8 and 9 – roughly USD 20 billion since 2010 from different sources¹⁰⁶ – is insufficient and does not reflect the importance of forests as part of the climate solution.

Although more strategic investment will be required, our findings show that the transition to sustainable land use can only be achieved with a dramatic shift away from investment in the drivers of deforestation toward investment in sustainable land use. Only the coordinated and strategic use of finance can enable this transition by targeting the vast existing flows of investment that have an influence on forests. Countries need integrated financial strategies of public and private finance that:

- Invest in both forest governance and policy reform
- Channel investment in non-forest areas into promoting sustainable land use and intensifying deforestation-free agricultural systems
- Channel investment into support for sustainable forestry, forest restoration, and the protection of standing forests
- Support jurisdictional programs that embed investment in land-use planning and certification
- Provide frameworks to channel results-based payments to developing countries

Addressing deforestation and moving toward a sustainable land-use sector also offers significant benefits:

- Higher returns and productivity improvements through sustainable land use
- Securing the domestic resource base and markets

¹⁰⁶ See Technical Annex for details.

- Improvements in transparency
- Recapturing foregone government revenues (e.g. taxes, royalties) where there is illegal deforestation and land use
- Lowering the environmental and social costs from deforestation and unsustainable land use, and enhancing the benefits of forest use and protection
- Rural economic development (e.g. new jobs and improved capacity, new business models, mobilization of investments) from new deforestation-free land-use and value-chain models
- Savings from more efficient allocation of resources resulting from improved cross-sectoral coordination

We captured in our analysis the flows of green finance aligned with forest and climate goals, and compared them with grey finance, which has an unclear but potentially negative impact on forests.

Across sectors, green finance is dwarfed by grey finance. Cumulative green finance (including REDD+) amounts to around two percent of estimated grey finance in deforestation countries. Public international finance for agriculture in deforestation countries is nearly 40 times greater than mitigation finance for forestry. Domestic subsidies to key drivers of deforestation in just two countries far outweigh government investment plans in four of the most advanced REDD+ countries. It is clear that there is an opportunity to re-align domestic finance, in particular as additional countries continue to develop their national strategies for reducing emissions. Private grey finance (e.g. capital stocks) in agriculture, forestry, and fishing is over 200 times higher than mitigation finance for forests. Green private capital commitments in developing countries are less than one percent of the value of grey private capital stocks in deforestation countries. While not a measure of financial support or investment, the production value of key driver commodities also illustrates the large economic incentives in the sectors that drive deforestation. In tropical countries alone, the production value of beef, soy, palm oil, pulp and paper is over 155 times higher than all REDD+ results-based finance commitments combined.

Support for the development and implementation of strategies to reduce forest emissions, as called for by Goal 8, remains insufficient. The magnitude of finance is highly disproportionate to the investment needs and the mitigation potential of forests. International finance for the sector in deforestation countries accounts for just over a percent of global mitigation-related development funding. Yet, tropical forests can provide 30 percent or more of the climate change mitigation needed to meet the goals of the Paris Agreement.

International public finance that clearly falls into the scope of green finance amounts to USD 2.3 billion (cumulative 2010 to 2015). For the purposes of this assessment, we focused on ODA committed to countries with high rates of deforestation. Our analysis shows that support for forests represents a small fraction of the development finance flowing into agriculture into these countries. There are important opportunities for better aligning these flows with forest policies, both to avoid harm and to explore synergies between sectors.

Additional support for tropical forest countries is essential to ensure that the momentum REDD+ has created is not lost. USD 1.4 billion in targeted REDD+ finance (cumulative since 2010), combined with the expectation of results-based payments for emission reductions, has motivated more than fifty countries to make REDD+ a priority of their national forest policies. Many have strengthened their capacities, established policy dialogues, and developed strategies to reduce forest emissions. Most REDD+ initiatives aim at leveraging private funding, but few have successfully integrated private finance in support of government programs.

Domestic finance commitments aligned with forest and climate goals can exceed international support. National budgetary finance amounted to roughly USD 10 billion (investment plans for the next 4-10 years) in just a small sample of advanced REDD+ countries. This shows that government

investment in the context of REDD+ programs can exceed international support, especially in the case of upper-middle-income countries. But governments also invest heavily in subsidies in support of expanding agricultural commodities, often without measures in place to avoid deforestation and harm to ecosystems.

Private investment in agriculture is the largest source of finance in the land use sector. Financial flows with objectives not clearly focused on sustainable activities are larger than the total of all green and grey finance from the other assessed sources combined. It is essential that these financial flows are redirected toward sustainable agriculture and forestry. Despite opportunities for investing in forestry, restoration, and sustainable intensification, private investors in sustainable commodity production and conservation face challenges in finding viable projects. Impact investments remain negligible in value compared to conventional finance.

Investor policies regarding forest-risk commodities must be strengthened. While some banks have published policies to increase sustainability and to identify and manage deforestation risks, few of these are mandatory, consistently applied, or independently monitored.

Blended public and private finance can catalyze new investments of private capital in sustainable activities. The public sector has a range of tools that can provide an attractive sustainable investment environment for private-sector actors to shift existing grey finance into sustainable activities. Smart subsidies can also help to cover risks associated with the transition to more sustainable forestry and agricultural practices.

Results-based REDD+ payments are beginning to reward countries and jurisdictions that reduce forest emissions, as called for by Goal 9. We captured roughly USD 4.1 billion in results-based commitments. With the exception of a large disbursement rewarding the substantial reduction in deforestation emission in Brazil, only a handful of countries have entered financial agreements, and almost no disbursements have been made. It has become clear that REDD+ payments alone are unlikely to catalyze the political, economic and institutional changes that are needed to address deforestation. Even with larger amounts available, significant and high-level commitment from countries paired with coordinated support from donors is needed to enable transformational change.

Support for supply chain efforts to incentivize reduced forest emissions is gaining traction. Several multi-stakeholder initiatives facilitate jurisdictional or landscape approaches that combine land-use planning, finance, sustainable commodity production, and certification. While it is difficult to point to concrete progress, such initiatives hold promise for accelerating the uptake and implementation of deforestation-free commitments and policies across sectors, actors, and boundaries.

Finance is essential for meeting the 10 goals of the NYDF, and more importantly, for accelerating global action to mitigate climate change. This progress report provides a limited picture of the state of finance aligned with forest and climate goals, but despite data gaps, the message is clear. There is a substantial need for finance for strategies that support reduced forest emissions and reward emission reductions. Existing green finance is marginal compared to the amount of grey finance that could potentially be “greened” and aligned with forest goals. Addressing deforestation will take unlocking the right combination of finance for differing contexts. The public sector needs to set incentives and the right conditions, but the private sector will be crucial in pushing forward a transition to sustainable land and forest use in the long term.

Glossary

Addis Ababa Action Agenda: A 2015 agreement that provides a foundation for financing and implementing the SDGs.

Capital stocks: Value of assets held by producers.

Commitment: An announcement or agreement from a donor country to provide financial support to a recipient country or fund.

Concessional finance: Loans extended on terms substantially more generous than those on the market. The concessionality is achieved either through interest rates below those available on the market, by grace periods, or by a combination of the two.

Conditional finance: Funds to which requirements are attached to their disbursement or usage.

Covenant: An agreement or contract that constitutes a pledge by a covenantee, the party to which something is promised, to either do or refrain from doing something.

High-conservation-value (HCV) forests: Forests considered outstandingly significant or critically important at the national, regional, or global level for biological, social, cultural, or ecological reasons.

Intact forests: Forests that are unbroken, i.e. not fragmented.

Natural forests: Forests that reproduce naturally and originate from the original forest cover.

Primary forests: Similar to natural forests, these forests have never been logged and remain untouched by human activity.

Readiness: Strategies and processes at national or subnational levels that prepare developing countries to get 'ready' to access and make use of financial sources for climate change mitigation and adaption or for REDD+.

REDD+: Efforts to reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks.

Sustainable Development Goals: A set of 17 global economic, environmental, and social goals. An initiative of the United Nations, the goals replace the Millennium Development Goals and cover the period 2015-2030.

Annex I: Multi-stakeholder initiatives supporting the development of jurisdictional and similar approaches

INITIATIVE	OBJECTIVE	ACTORS	PARTICIPATING GEOGRAPHIES
Tropical Forest Alliance 2020*	Public-private partnership in which partners take individual and/or combined action to reduce forest loss associated with sourcing of commodities such as cattle, soy, palm oil, timber & pulp.	41 civil society, 15 government, 45 private sector, 2 multilateral partner organizations.	Global
Commodities / Jurisdiction Approach†	Information platform that brings together companies and governments to foster incentives for international supply chains that are supportive of forest conservation. The approach helps companies in meeting their zero-deforestation goals, while enhancing recognition for effective jurisdictional programs.	Expert group of civil society organizations and think tanks, donor governments, other multi-stakeholder partnerships, certification bodies, companies.	Global
Landscapes for People, Food and Nature Initiative‡	The initiative aims to create an enabling environment for an efficient and integrated landscape management. This is done by providing background research and a ground for dialogue for businesses, organizations and communities.	A number of governmental institutions, international organizations, private and public institutions of different nature (e.g. universities, foundations, etc.).	Global
Global Partnership on Forest and Landscape Restoration§	Committed to the Bonn Challenge of restoring 150 million ha of degraded and deforested land by 2020, 350 million ha by 2030. The partnership does this by building support among decision-makers, providing the tools and knowledge needed to raise awareness, and organizing workshops to develop sufficient collective and individual capacity.	Network of governments, academic institutions, research centers, organizations, communities, and individuals.	Global
Mato Grosso's Produce, Conserve, Include (PCI) strategy¶	Governmental strategy to reduce deforestation by 90 percent, replant 2.9 million ha of vegetation, and foster communities driven low-emissions rural development. This is done in order to reduce emissions by 6GtCO ₂ by 2030.	Brazilian governmental institutions, in partnership with a number of NGOs, private funds, labor organizations, and civil society organizations.	Mato Grosso, Brazil
Sustainable Trade Initiative (IDH)¶¶	Create public-private partnerships to design viable approaches to drive sustainability from niche to norm.	An initiative that convenes companies, civil society organizations, and governments.	Belize, Costa Rica, Ecuador, Brazil, Mali, Côte d'Ivoire, Liberia, Ghana, Nigeria, Ethiopia, Kenya, Rwanda, Uganda, Burundi, Madagascar, Tanzania, Malawi, Mozambique, Pakistan, India, China, Vietnam, Thailand, Indonesia

South Sumatra Eco-Region Alliance/ Partnership Consortium for Landscape Management[#]	Public-private partnership aims to address deforestation, climate change impacts, and wildfires in the region, in line with the Country's NDC. This is done by involving key companies in the palm oil sector to align them with country commitments.	Governmental institutions, corporations, and communities	South Sumatra, Indonesia
SPOTS^{**}	100 percent palm oil to be produced in compliance with RSPO and a better life for smallholders by 2020.	L'Oreal, Wilmar, Clariant, Global Amines and Wild Asia	Sabah region, Malaysia
EII's Forests, Farms, and Finance Initiative (3FI) and Territorial Performance System (TPS)^{††}	One of the main projects by the 3FI, the Territorial Performance System is "a unified approach that drives the transition to sustainable, equitable, productive commodity supply chains and rural development across entire jurisdictions/territories (municipalities, states)".	EII, RTRS, GRSB, RSPO, Forest Trends, GCF, Solidaridad, Sapopema, IPAM, INOBU, Proforest, Bonsucro, Unilever, WWF, IDH	Brazil, Indonesia, Colombia, NA Mexico, Paraguay, Ghana
TFA2020 Africa Palm Oil Initiative^{**}	Public-private partnership to formulate and implement principles for responsible practices all across the palm oil sector in the region. Support governments in creating an adequate enabling environment, while also supporting both leading companies and smallholders in implementing such practices.	Unknown	Ghana, Liberia, Côte d'Ivoire, Cameroon, Gabon, Nigeria
Sustainable Tropics Alliance^{§§}	Formulate and support the implementation of bottom-up approaches for low-emission, sustainable land use.	EII, ProNatura Sur, Green Belt Movement, IPAM, INOBU, IBC, VERTIC	Chiapas, Mexico; Pachitea Basin, Peru; Colombia; Mato Grosso, Acre, and Para, Brazil; Kenya; West Papua, Indonesia; Central Kalimantan, Indonesia
Sustainable Landscapes Partnership	Protect natural capital through good governance, by promoting sustainable production practices, and facilitating sustainable finance.	Conservation International and partners	Indonesia, Peru

^{*} Tropical Forest Alliance 2020. (n.d.). *About TFA 2020*. Retrieved from www.tfa2020.org/en/about-tfa/objectives

[†] The Commodities/Jurisdiction Approach. (n.d.). Approach. Retrieved from <https://commoditiesjurisdictions.wordpress.com/approach>

[‡] Landscapes for People, Food, and Nature Initiative. (n.d.). *About*. Retrieved from <http://peoplefoodandnature.org/about/#organizers>

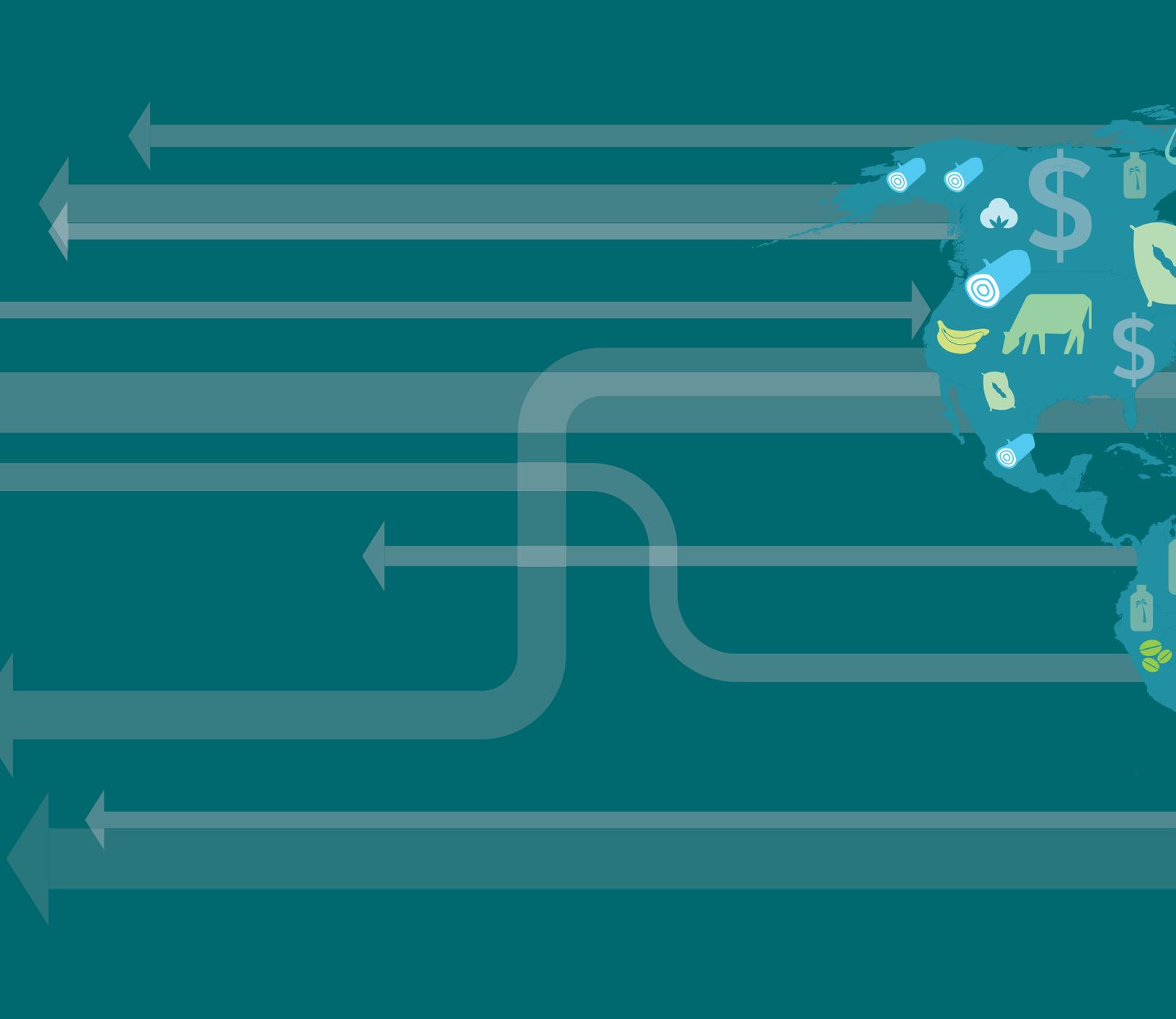
[§] The Global Partnership on Forest and Landscape Restoration. (n.d.). *About the partnership*. Retrieved from www.forestlandscaperestoration.org/about-partnership

^{||} Governo de Mato Grosso.(n.d.). *Produzir, Conservar, Incluir. Estratégia de MT para reduzir as Mudanças Climáticas*. Retrieved from <http://pci.mt.gov.br/#contato>

[†] IDH, The Sustainable Trade Initiative. (n.d.). *About*. Retrieved from www.idhsustainabletrade.com/about-idh

[#] Wild Asia. (2017). *Joint Forces: The SPOTS Initiative. Sustainable palm oil and traceability with Sabah small producers*. Retrieved from http://oilpalm.wildasia.org/wp-content/uploads/sites/6/2014/03/151113_SPOTS_flyer_gb.pdf

^{**} Earth Innovation. (2014). *The Territorial Performance System, Brazil*. Retrieved from http://earthinnovation.org/wp-content/uploads/2014/12/eii_tps-brazil_online2.pdf



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