

ISSUE BRIEF

# REDD+ and International Climate Finance: A Brief Primer

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## **Resources for the Future**

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# REDD+ and International Climate Finance: A Brief Primer

Daniel F. Morris and Andrew Stevenson<sup>1</sup>

## Introduction—What Is International Climate Finance?

*International climate finance (or climate finance)*, which has become a central pillar of global efforts to address climate change, is generally defined as financial flows or mechanisms originating outside of a developing nation that support actions within these nations to reduce greenhouse gas emissions or adapt to climate change impacts.

Climate finance is typically divided into three categories based on the different mitigation and adaptation needs of developing countries:

- *reducing deforestation*, by providing compensation slowing and reversing the conversion of forests to other land uses and the degradation of healthy forests;
- *deploying clean technology*, primarily through research and development, technical assistance, and preferential financial incentives in the power, industrial, and transportation sectors; and
- *adapting to climate change impacts* by taking steps such as studying expected impacts, building disaster rapid-response capabilities, modifying infrastructure, encouraging ecosystem resilience to climate impacts, developing flood- and drought-resistant crops, and creating new climate-related insurance products.

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Climate finance typically also includes *cross-cutting* needs, such as economic and policy analysis to inform national low-emissions development plans; technical capacity for measuring, monitoring, reporting, and verifying emissions reductions and financial flows; and institutions and policy reforms for ensuring that programs are managed and funding is delivered efficiently and effectively. These needs fit under the larger umbrella of “capacity building,” which also includes specific activities that prepare nations successfully govern and execute plans to reduce deforestation.

Essentially, international climate finance is an effort to (a) integrate climate change concerns into traditional development assistance in the energy, transportation, infrastructure, land-use, and other sectors and (b) help developing nations internalize the local and global externalities caused by their greenhouse gas emissions.

This paper focuses specifically on the role of international climate finance in reducing emissions from deforestation and forest degradation (REDD+)<sup>2</sup>. First, it provides background on how climate finance could help reduce emissions from deforestation and estimates how much funding is needed. Next, it looks at long-term international climate finance pledges made by developed countries and how the sources mobilized to meet those pledges could be deployed for REDD+. It then considers how emerging international governance structures for climate finance will affect REDD+ financing, and concludes with recommendations for policymakers in the United States and other developed nations.

## Climate Finance and REDD+—How and How Much

Estimates of financing needs are closely tied to financing uses and what financing would accomplish, especially in the area of REDD+. Deforestation and forest degradation accounts for between 12 and 17 percent of global greenhouse gas emissions annually—primarily in developing tropical forest countries—and many researchers have found that reducing deforestation is one of the most cost-effective mitigation opportunities.<sup>3</sup> To reach globally agreed-upon targets for greenhouse gas concentrations and temperature increases, many analysts and governments recommend goals of reducing global deforestation 50 percent by 2020 and 100 percent by 2030.<sup>4</sup>

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<sup>2</sup> Acronyms are important for identifying the types of emissions reduction from the forest sector. RED refers to reducing emissions only from deforestation, whereas REDD includes forest degradation. REDD+ includes sustainable forest management and carbon storage enhancement. This paper addresses all three types, but will use the broadest category, REDD+.

<sup>3</sup> However, this point is controversial; see: Blackman, A. (2010) *Weekly Policy Commentary: Will REDD Really Be Cheap?* Washington, DC: Resources for the Future.

<sup>4</sup> For example, see: Eliasch, J. (2008) *Climate Change: Financing Global Forests*, London, UK: Office of Climate Change; Commission on Climate and Tropical Forests (2009) *Protecting the Climate Forests: Why Reducing Tropical Deforestation Is in America’s Vital National Interest*, Washington, DC.



Climate finance can help reduce rates of deforestation by providing financial incentives (e.g., cash payments) for governments and landowners to keep forests standing instead of cutting them down for alternative land uses, such as palm oil or soy plantations. Reforestation and afforestation by planting trees on unused or degraded land can also provide incentives. The scale of payments needed is related to the opportunity costs of these alternative uses. As an illustrative example, if converting forests into palm oil plantations can generate \$100 per acre per month, the payment must exceed \$100 per acre per month to convince either the government or the landowner to keep trees standing. Typically these payments are denominated in dollars per ton of carbon dioxide equivalent (CO<sub>2</sub>e) sequestered instead of acres, and their level is based on a comparison with a *business-as-usual* rate of deforestation that would occur without the payments. National or provincial governments can either administer payments directly or channel them through international institutions such as the World Bank; this can result in significant transaction costs.

Estimating national or global costs for reducing deforestation is difficult because of uncertainties about the opportunity costs of land, the ability of developing countries to implement needed safeguards, and the complex global market for food, biofuels, and forest products. Most studies use global economic models, which rely heavily on opportunity costs, and estimate that payments of \$5–\$20 per ton of CO<sub>2</sub>e are required in most cases for reducing deforestation.<sup>5</sup> Because global deforestation currently releases about 6 billion tons of carbon dioxide into the atmosphere each year, reducing deforestation 50 percent by 2020 would cost in the range of \$15–\$60 billion per year in direct financial transfers.

To lay the groundwork for climate financing, developing countries need to undertake low-emissions development planning; build measuring, monitoring, reporting, and verification systems; pursue policy reforms; and create new institutions. Global cost estimates for reducing deforestation often do not factor in the costs of these activities. However, studies have found the costs of capacity building in the forest sector to be about \$4–\$6 billion from 2010 to 2012.<sup>6</sup>

### Long-Term Climate Finance Pledges and REDD+

Importantly, developed countries have made international commitments to provide climate finance to developing countries. Under the U.N. Framework Convention on Climate Change (UNFCCC)—an agreement ratified by the United States—developed countries committed to

<sup>5</sup> For example, see: Kindermann, G., Obersteiner, M., Sohngen, B., Sathaye, J., Andrasko, K., Rametsteiner, E., Schlamadinger, B., Wunder, S., and Beach, R. (2008) Global Cost Estimates of Reducing Carbon Emissions through Avoided Deforestation, *Proceedings of the National Academy of Sciences*, 105(30), pp. 10302–10307.

<sup>6</sup> See: Pagiola, S., and Bosquet, B. (2009) Forest Carbon Partnership Facility: Estimating the Costs of REDD at the Country Level, Washington, DC: World Bank; Hoare, A., Legge, T., Nussbaum, R., and Saunders, J. (2008) *Estimating the Cost of Building Capacity in Rainforest Nations To Allow Them To Participate in a Global REDD Mechanism*, London, UK: Chatham House; Project Catalyst (2010) *Making Fast Start Finance Work*, San Francisco, CA: ClimateWorks Foundation.;



provide the “agreed full incremental costs” of climate action in developing nations.<sup>7</sup> Developed countries also pledged in December 2009 in the nonbinding Copenhagen Accord to provide \$30 billion in so-called “fast start financing” from 2010 to 2012 and to mobilize \$100 billion per year by 2020 in funding for climate finance<sup>8</sup>.

These pledges were formalized—given official status and agreed on by all parties to the UNFCCC—as part of the Cancun Agreements that countries negotiated in December 2010. The pledges still are not technically legally binding, partly because they do not include penalties for noncompliance. If nations do not fulfill these pledges, however, they will severely hamper negotiations toward a new legally binding international climate change agreement, as the willingness of nations to fulfill their promises is a core principle of the UNFCCC.

The amount of international funding for REDD+, therefore, will be largely dependent on the ability of developed countries to meet the long-term \$100 billion pledge and the types of sources they mobilize to meet the pledge. To mobilize such substantial funds effectively and without putting too much burden on any one sector, developed countries will have to draw from a portfolio of sources. Funding may travel through one of four general categories.

- **Public funding.** This is the most clearly established category of funding source as a result of pledges made in Copenhagen and formalized in Cancun, which are to be filled initially with public funds. This category includes a diversity of proposed sources, including revenues from emissions allowance auctions in carbon markets, taxes on international travel, carbon-related revenues from taxes on fossil fuel use, financial transaction taxes, and direct budgetary apportionments. Beyond the confines of UNFCCC structures, bilateral agreements through which developed nations provide direct assistance for REDD+ programs to developing forested countries appear to be the most viable avenue for funds in the short term. Such agreements between Norway and both Guyana and Indonesia are allowing the latter two countries to move forward in developing national REDD+ approaches and the capacity to implement them. Successes in these two countries may provide a template for other nations to follow.

<sup>7</sup> See. United Nations Framework Convention on Climate Change, Article 4, Paragraph 3. Available: [http://unfccc.int/essential\\_background/convention/background/items/1349.php](http://unfccc.int/essential_background/convention/background/items/1349.php).

<sup>8</sup> The short-term pledge is intended to come primarily from public sources and is not contingent on further progress in international climate negotiations. However, the long-term pledge is intended to cover both public and private sector financial flows and is dependent on both the nature of actions by developing countries to reduce their emissions and their willingness to participate in international consultations and analysis of those emissions reduction actions. Some countries and organizations believe only “new and additional” funding should count towards these pledges, and there is disagreement about how specific sources such as carbon markets and more general private sector investment should be counted. This paper does not address these issues in detail, and funding estimates are not intended to reflect judgments about what sources should be counted.



- Carbon markets. This category is totally dependent on the development and evolution of cap-and-trade systems over the next 5 to 20 years. For REDD+, funds would come directly from the market in the form of revenue from offset credit purchases. The hope for carbon markets is that they will potentially help supply the bulk of funds for REDD+ after initial investments of public funds.
- Development bank financing. Multilateral development banks may provide loans to forested countries for capacity building in preparation for REDD+ efforts and market participation. The potential for this avenue to deliver major funds to REDD+ is not as high as that of other categories because development banks tend to focus more on infrastructure, especially related to energy production and generation. That said, multiple programs within the World Bank, such as the Forest Carbon Partnership Facility and the Forest Investment Program, have combined already deployed more than \$17 million for REDD+ activities as of September 2011.<sup>9</sup>
- Private financing. The early use of public funds will help forge a path forward to eventual investments from private actors in climate actions. This category covers sources beyond carbon markets, such as pensions, venture capital, and other investment funds. Many developed countries and the U.N. Advisory Group on Climate Change Finance consider private capital investment essential to fulfilling the pledges made in Copenhagen. These funds will probably have to be leveraged by or combined with public funds to reduce risk and capital costs.

Exactly when each funding category will generate significant volumes of funds remains uncertain, but is a critical consideration for the design of mitigation and adaptation projects. Currently, the fast-start financing established in the Copenhagen Accord is expected to be distributed through 2012; this will help lay the groundwork for other funding sources to come online in subsequent years.

The levels of funding that follow in 2013 will be critically important for the execution of successful REDD+ efforts, as they will potentially provide continuity and maintain momentum between the fast start financing phase and more long-term and sustainable funding phases. Without timely intervention to reduce deforestation where it is currently occurring, clearing patterns will continue and will “lock in” future emissions releases. As forests are cut down, most of the embedded carbon is released immediately. Peatlands and mangroves are exceptions, as they emit over longer time frames. Regardless, preventing deforestation in the first place ensures that emissions never occur. Spending money for capacity building e up front will help establish

<sup>9</sup> For up-to-date tracking of climate fund disbursement, see [www.climatefundsupdate.org](http://www.climatefundsupdate.org). The site is run jointly by the Heinrich Böll Foundation North America and the Overseas Development Institute.



successful programs in areas with a high risk of deforestation and to avoid the type of emissions lock-in that is currently happening in important REDD+ countries like Indonesia. Delays will put more forests at risk and potentially result in greater greenhouse gas emissions.

## **Governance of the Green Climate Fund and REDD+**

Although climate finance currently has no overarching governance structure, countries decided in the 2010 Cancun Agreements to establish a new multilateral fund, called the Green Climate Fund (GCF), through which a significant portion of new funding for adaptation—and presumably some new funding for mitigation—will flow.

Governments will spend the next several years designing the governance and decisionmaking processes for the fund and setting its overall policies. A significant portion—although definitely not all—of the long-term Copenhagen pledge of \$100 billion per year by 2020 is expected to flow through the GCF.

A Transitional Committee established in the Cancun Agreements will make some of the important initial governance and fund design decisions in 2011, with others deferred to the GCF Board, which is intended to be representative of the broad range of perspectives of different countries within the UNFCCC. The Board will consist of 24 members with equal representation from developed and developing countries, but many decisions on the design of the GCF's mechanisms rest with the Transitional Committee. The Committee will have to establish key short-term goals as well as principles to help guide the GCF through the establishment phase.

Currently, the role that the GCF will play in the larger scope of climate finance is unclear, though it will probably be a significant aspect of how finance is governed through the UNFCCC. The Cancun Agreements stated explicitly that the GCF is to function under the guidance of the Conference of the Parties (COP) to the UNFCCC. The level of authority that the COP will exercise over the fund will develop over time; parties will not formally express their priorities until COP 17 in Durban and will then further develop in subsequent COP meetings.

There is a chance the size of the GCF will be in the range of \$15–\$20 billion per year by 2020, potentially similar to levels from development banks<sup>10</sup>. This is a substantial increase over previous multilateral funds of this nature, and it remains uncertain whether donor countries can mobilize funds on this scale for a fund over which they will probably have limited control. Similarly, it is as yet undetermined what types of funds will go into sustaining the GCF over the long haul.

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<sup>10</sup> See: Stevenson, A., Purvis, N., O'Connor, C. and Light, A. (2010) *The U.S. Role in International Climate Finance: A Blueprint for Near-Term Leadership*, Washington, DC: Alliance for Climate Protection and Center for American Progress.





Financing mechanisms that are already in place will not change immediately; most will remain separate from the GCF and may compete with it for public funding inputs. As such, the GCF will need to develop new models and sources for mobilizing money, especially from the private sector. To do this, the GCF will need to facilitate private investment by encouraging public sector reforms in developing countries that will provide some certainty and reliability to investors as well as some potential direct support of private ventures.<sup>11</sup>

The mechanisms put in place by the GCF will impact REDD+ funding, though what level of funds for REDD+ will come from the fund is not yet determined. Some argue that the current landscape of climate financing is overwhelmingly tilted toward mitigation actions, so the GCF should be much more focused on adaptation efforts.<sup>12</sup> If the GCF moves in such a direction, it will deemphasize funding REDD+ efforts in favor of other initiatives. That said, some proportion of the GCF will probably be dedicated to forestry efforts, be it through adaptation projects or through REDD+. A challenge for the GCF in REDD+ and other climate financing categories is coordinating with existing efforts to ensure that it is not duplicating efforts or crowding out other funding sources.

### **Priorities for REDD+ Finance Providers**

Although not the most developed concept among climate issues, REDD+ has reached a high level of maturity over the course of a few years. Projects are located in forested countries across the globe, and some countries, like Guyana and Indonesia, are already developing national-level REDD+ structures. Part of the reason those nations are able to act on deforestation now is because they have access to significant funding sources. Early action is critical for effective REDD+ programs, and funders that wish to have significant positive effects in the area of REDD+ need to mobilize and ramp up efforts quickly. Specifically, delivering financing for REDD+ readiness to developing forested countries is a high priority in the short term. By establishing the structures necessary to facilitate REDD+, fast-acting funders can help prevent emissions from forests that will be forever lost if cleared at a price that is cheap than almost all other avenues for preventing GHG emissions.

Although public funds deployed for REDD+ can be effective in the short term, financing over longer time scales will need to incorporate revenue from carbon markets and funding from other private sources. The United States and other climate finance suppliers should consider using a proportion of their initial pledges to develop ways to leverage private investments in climate actions. REDD+ may offer appealing opportunities for private actors to engage funds effectively,

<sup>11</sup> Sierra, K. (2011). *The Green Climate Fund: Options for Mobilizing the Private Sector*, brief to the GCF Transitional Committee, London, UK: Climate and Development Knowledge Network.

<sup>12</sup> See: Bird, N., Brown, J., and Schalatek, L. (2011). *Design Challenges for the Green Climate Fund*, climate finance policy brief no. 4, Washington, DC: Heinrich Böll Foundation North America and Overseas Development Institute.



and major funders like the United States should do the initial groundwork to ensure that when REDD+ efforts gain momentum, the avenues through which private money can flow are open and operational.

The combination of existing funding sources and potential future sources from private and other actors suggest that the GCF will likely not place an emphasis on REDD+ efforts. Major funders, however, will have the leverage to define the type of projects that the GCF targets. The United States and others should use the funds held by the GCF to pursue REDD+ activities that are cost-effective and able to address both mitigation and adaptation concerns. This may involve identifying REDD+ projects in forests that have the potential to help increase area resilience, protect from expected impacts, or achieve other development goals. One example would be favoring projects that generate credits from mangrove protection, as mangroves can protect coastlines from erosion and storm surges.<sup>13</sup>

Identifying REDD+ activities that are cost-effective and likely to generate co-benefits will require some analysis of specific conditions on the ground. Additionally, some developing forested countries are far more prepared than others to implement REDD+ actions. For funding to be most effective, it will need to target the areas where it can produce positive momentum. Thus, major funders should use analyses of REDD+ readiness and capacity to target investment in countries that are prepared to receive forestry-specific funds.<sup>14</sup> By identifying the best places to invest in REDD+ actions, the United States and other major funders can set climate finance up for a greater chance of success in the long term.

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<sup>13</sup> For a thorough discussion of options for climate mitigation from mangroves, see Siikamaki, J. J. Sanchirico, S. Jardine, D. McLaughlin, and D. Morris. (forthcoming) *Blue Carbon: Global Options for Reducing Emissions from the Degradation and Development of Coastal Ecosystems*, Washington, DC: Resources for the Future.

<sup>14</sup> For a more in-depth discussion of the best places for targeted REDD+ investments, see: Morris, D.F., Busch, J., and Boltz, F. (2011). *Geographically Prioritizing Appropriations for the Sustainable Landscapes Program*, issue brief 11-01, Washington, DC: Resources for the Future.

