

The Role of Forests in a Future Climate Agreement

Donna Lee

April 2013



This Viewpoint examines the possible role of REDD+ in the elaboration of a new agreement or arrangement under the Durban Platform for Enhanced Action.¹

The Role of Tropical Forests in Climate-Change Mitigation

Carbon emissions from the loss and degradation of tropical forests constituted an estimated 12 percent² of total global anthropogenic greenhouse-gas emissions in 2005. The percentage is likely lower today due to increases in fossil fuel combustion, as well as a decline of nearly 80 percent in the annual rate of deforestation in Brazil's Amazon region between 2005 and 2012.³ There are governance and institutional challenges, but protecting forests in many cases requires no new technologies, is consistent with existing national and international policies, and is frequently a cost-effective means to reduce emissions. In addition, forests are home to, and support the livelihoods of, many of the world's poorest and most vulnerable people and provide important ecosystem services, from fresh water to biodiversity habitat and pharmaceutical resources. Forests also play a critical role in efforts to adapt to the impacts of climate change, for example, by providing erosion control and protection of coastal ecosystems against storm surges and hurricanes.⁴

-
- 1 Many thanks to Jose Carlos Fernandez, Peter Graham, Jim Penman, Marcelo Rocha, and Dan Zarin for their helpful comments in reviewing this article.
 - 2 Data from Harris, Brown, Hagen, Baccini, Houghton, "Progress Toward a Consensus on Carbon Emissions From Tropical Deforestation," November 2012; and World Resources Institute, <http://www.wri.org/chart/world-greenhouse-gas-emissions-2005>.
 - 3 Union of Concerned Scientists, 2010: "Brazil's Success in Reducing Deforestation." http://www.ucsusa.org/assets/documents/global_warming/Brazil-s-Success-in-Reducing-Deforestation.pdf
 - 4 ODI, 2011: "REDD+ and Adaptation: will REDD+ contribute to adaptive capacity at the local level?": <http://redd-net.org/files/REDD%20ADAPTION%20LONG%20-%20MASTER%20final.pdf>

Viewpoints present policy proposals, considered opinions, and commentary by distinguished policymakers, leaders from business and non-governmental organizations, and scholars. The Harvard Project on Climate Agreements does not advocate any specific climate change policy proposals. Statements and views expressed in *Viewpoints* are solely those of the authors and do not imply endorsement by Harvard University, the Harvard Kennedy School, or the Harvard Project on Climate Agreements.

The United Nations Framework Convention on Climate Change (UNFCCC) since COP-13 has given special recognition to the critical role of forests in tackling global climate change. Since then, a number of developing countries have begun to develop strategies to reduce emissions from deforestation. However, current uncertainties in the climate negotiations have resulted in increasing reluctance to commit to and mobilize the resources needed to implement such strategies absent a clear signal that a future international climate agreement will deliver incentives, financial or otherwise. In the meantime, mounting pressure on available land due to growing populations, dietary changes, demand for biofuels, and escalating commodity prices challenge efforts to keep forests standing.

A Brief History of REDD+ Under the UNFCCC

The prominence of forests in the UNFCCC is also, in part, due to its role in developing country mitigation, representing a significant majority of potential emissions reductions, and because deforestation was excluded from the Kyoto Protocol's Clean Development Mechanism (CDM). For many developing countries, the elevation of forests in the negotiations represented an opportunity to participate in a future system that includes financial rewards for climate mitigation actions that also match their sustainable development goals. It was for these reasons that, in 2005 at COP-11 in Montreal, several developing countries requested that a new, separate item on deforestation be added to the UNFCCC agenda. The scope was initially limited to "reducing emissions from deforestation in developing countries" (RED).⁵ Subsequently the concept has expanded to include not only deforestation, but also forest degradation, and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks— together known as "REDD+".

At COP-13 in 2007, REDD+ was included in the Bali Action Plan, further consolidating its place in a future international climate agreement, and again in the Copenhagen Accord in 2009 as having a "crucial role" in global mitigation efforts.⁶ The following year in Cancun, a more detailed REDD+ decision⁷ was agreed upon that encouraged developing countries to contribute to mitigation through forest-related activities and provided guidance and a framework for undertaking such actions—including development of national strategies, reference levels, monitoring systems, and

⁵ UNFCCC, COP-11, "Item 6 of the provisional agenda: Reducing emissions from deforestation in developing countries: approaches to stimulate action," November 11, 2005. <http://unfccc.int/resource/docs/2005/cop11/eng/misc01.pdf>

⁶ Decision 2/CP.15. *Copenhagen Accord*. Paragraph 6.

⁷ Decision 1/CP.16, Section 6.

social and environmental safeguards. In Durban (2011), Parties adopted a decision on REDD+ suggesting “appropriate market-based approaches could be developed by the COP to support results-based actions.”⁸ It left unresolved, however, what is meant by market-based approaches, and also skirted the issue of whether or not bilateral, or non-COP developed mechanisms that could be used to meet country commitments, would be recognized under the UNFCCC. The Durban decision also noted that non-market approaches could be developed.

Many developing countries expect discussion under the UNFCCC to result in a mechanism that will help to finance the collective and agreed goal to “slow, halt, and reverse forest cover and carbon loss.”⁹ In particular, a number of countries want to see a payment-by-results system for measured, reported, and verified forest-related emissions reductions. Despite slow progress under the UNFCCC, several countries and subnational governments are moving forward to create or pilot such mechanisms—Brazil’s Amazon Fund, Norway’s bilateral arrangements with Indonesia and Guyana (and contribution to the Amazon Fund), Germany’s emerging REDD Early Movers program, the Forest Carbon Partnership Facility’s Carbon Fund, and Japan’s “Bilateral Offset Crediting Mechanism.” California is exploring the inclusion of REDD+ crediting at the state level in its cap-and-trade system. In addition, REDD+ credits are being sold and traded in voluntary markets and currently sell at a premium compared to other non-compliance credits.

The Peculiarities of Land Use and REDD+ in the UNFCCC

The role of land use has held a unique place in international climate negotiations and has historically been considered different from other sectors. Discussions around “land use, land-use change and forestry” (LULUCF) are politically charged, not only in UNFCCC negotiations but also domestic policy. No other sector with mitigation potential has such prominence, explicit mention, or a separate “stream” in the negotiations.¹⁰ This is partly because emissions and removals from land use are diffuse compared with point-sources (such as in the energy sector) and therefore more difficult to regulate, but also due to technical concerns over measurement, non-permanence of carbon stocks, the effect of “natural disturbances,” and the time lags associated with past activities.¹¹ In addition, for many developed countries the forest sector is

⁸ Decision 2/CP.17, Section IIC, paragraph 66.

⁹ Decision 1/CP.16, Section IIIC, chapeau.

¹⁰ Other sectors mentioned in UNFCCC negotiations are agriculture and bunkers, but neither is given the same prominence as REDD+.

¹¹ For example, tree planting can for some countries introduce significant variation into total national net emissions and removals.

a net sink, which has caused some politicians to have difficulties with understanding why the sector should take on liabilities for a declining sink, so long as overall the sector is continuing to sequester carbon.

To address these unique qualities, the Kyoto Protocol created separate accounting systems for land-use activities, not only for developed country targets but also a separate class of credits, not fungible with other types of credits, for afforestation and reforestation under the CDM.¹² In addition, the Protocol does not require developed countries to account for all land use related emissions. Mandatory inclusion towards targets was restricted to afforestation, reforestation, and deforestation for the first commitment period, and although the second commitment period extends mandatory coverage to forest management, other land use activities (cropland management, grazing land management, wetland drainage and rewetting, and revegetation) remain voluntary. It remains to be seen whether or how the Kyoto Protocol system for land use accounting carries over to a new agreement.

Likewise, REDD+ has progressed in parallel with, and largely separate from, the broader mitigation discussions, as well as how land use is treated more broadly both under the Convention and the Kyoto Protocol. While some countries view REDD+ as a subset of “nationally appropriate mitigation actions (NAMAs) by developing country Parties”¹³, others do not want to equate or subsume REDD+ into NAMAs but create a separate and distinct “REDD+ mechanism.” Many developing countries have been at pains to separate REDD+ from the broader mitigation discussions, in part for fear of being held back from the slow pace of the latter and, for some, because of fears that forest policy should not be driven primarily by global mitigation objectives but also include the many other benefits forests provide to local communities. Many only connect REDD+ to the broader mitigation discussions when recognizing that financing for REDD+ may depend on deeper commitments from developed countries, particularly if offsets are to pay for the large mitigation potential of forests.

To date, therefore, REDD+ has tended both to keep its separate nature, while struggling to fit within a broader international agreement on climate change, and there has been a range of opinions among Parties on how to best to accommodate REDD+ within a broader climate-change

¹² The CDM created a special type of credit—the temporary Certified Emission Reduction (tCER) and long-term CER (lCER)—for mitigation activities related to land-use, due to concerns over non-permanence, which function differently and are not fungible with CERs; this has contributed to a lack of demand for such credits.

¹³ Decision 1/CP.13 (Bali Action Plan), separated “nationally appropriate mitigation actions by developing country Parties” in para 1(b)(ii) from REDD+ which followed in para 1(b)(iii).

agreement. The chart below highlights several differences related to land use and treatment under the broader Convention (and its requirement for all countries to report on greenhouse-gas emissions using Intergovernmental Panel on Climate Change guidance), the Kyoto Protocol second commitment period, and negotiations to date on a future REDD+ mechanism.

	UNFCCC reporting	Kyoto Protocol LULUCF requirements for the 2 nd commitment period	REDD+
Scope	Comprehensive coverage of all land use emissions and removals, including: <ul style="list-style-type: none"> • Forest land • Cropland • Grassland • Wetlands • Settlements • Other land 	Mandatory: <ul style="list-style-type: none"> • Afforestation • Reforestation • Deforestation • Forest management Voluntary: <ul style="list-style-type: none"> • Cropland management • Grazing land management • Revegetation • Wetland drainage and rewetting 	Voluntary forest-related activities*: <ul style="list-style-type: none"> • Deforestation • Degradation • Conservation • Sustainable management of forests • Enhancement of forest carbon stocks
Scale	National	National	National, or Subnational as an interim step
Responsibility	Reporting only Under Copenhagen Agreement, countries made economy wide voluntary commitments to 2020	Countries take on legally-binding economy wide targets, with liabilities if commitment unmet	Unclear to date whether “positive incentives” includes responsibility for liabilities (e.g. requirements for insurance, buffers, or other guarantee mechanisms related to the non-permanence of forests)

* It remains unclear if additional LULUCF activities may be included, such as peatlands, croplands, etc.

The Current Status of REDD+ in the UNFCCC, including the Durban Platform

In the wake of the new Durban Platform, the separation between REDD+ and how land use is treated more generally by all Parties may prove increasingly difficult to maintain. The future role of REDD+ in the UNFCCC will likely be reassessed in the broader context of a new framing for a future international agreement, in which there are many uncertainties (see July 2012 Harvard Project *Viewpoint* by Daniel Bodansky¹⁴)—including its legal form, whether it takes a flexible or regulatory approach, its level of ambition, and whether it is in addition to or subsumes the Kyoto

14 Bodansky, Daniel, “The Durban Platform Negotiations: Goals and Options”, *Viewpoints*, Harvard Project on Climate Agreements, July 2012, <http://belfercenter.hks.harvard.edu/publication/22196>.

Protocol. Perhaps most important is whether and how a new agreement might differentiate among countries, for example developed, emerging, developing, and least developed countries. In this context, REDD+ is a second order question that will need to be consistent with the broader legal and regulatory framework to be developed.

REDD+ is also likely to be affected by negotiations under the stream commonly known as the “framework for various approaches” where consideration of how non-markets and markets, including new market mechanisms and the potential of multiple domestic and international markets, might function within a single framework that enhances overall ambition while ensuring environmental integrity.¹⁵ Many Parties see REDD+ potentially fitting under this framework, and at COP-18 in Doha (December 2012) Parties endorsed continued work in elaborating such a framework.¹⁶

In addition to the broader fundamental issue of how REDD+ will fit within a new agreement, there are a number of unresolved issues and outstanding technical challenges that REDD+ will face in a future agreement, including:

Scale: One of the most contentious issues in the REDD+ negotiations has been over what scale REDD+ actions should be eligible for “results-based financing.” Many countries argue that REDD+ should only be a national-level mechanism with performance measured against a national baseline (similar to a sectoral mechanism), while others insist on eligibility for subnational REDD+ actions (with no agreed definition on what “subnational” means). Very few support smaller, stand-alone project-level activities—although this is a preferred option for the private sector.

Scope: In current UNFCCC agreements, REDD+ is defined as five activities: reducing emissions from deforestation, reducing emission from forest degradation, forest conservation, the sustainable management of forests, and enhancement of forest carbon stocks. However, whether other LULUCF categories might be included (e.g. non-forested peatlands, coastal ecosystems, croplands) or whether a country could account for only a single, or specific set of, activities (such as reforestation without accounting for deforestation) has not been decided.

¹⁵ For a further discussion on this issue, see Rocha, Marcelo Theota, “Elaborating the ‘framework for various approaches’ under the UNFCCC” prepared for the Climate Change Expert Group Global Forum, March 2013.

¹⁶ Decision 1/CP.18, Section IID.

Reference Levels: Currently, countries have agreed that REDD+ reference levels are “benchmarks for assessing each country’s performance,”¹⁷ based on historical data but can be adjusted “for national circumstances,”¹⁸ implying that they could represent business as usual projections of forest emissions and removals in the absence of additional activities, policies, or measures. No detailed decision, however, has been taken as to how such reference levels should be constructed and, importantly, on how they might relate to potential finance—and whether there may be a “crediting baseline” separate from such reference levels.

REDD+ as offsets: Most forested developing countries support the use of markets for REDD+ financing. A few countries, however, have fought to block markets either due to concerns that forests will be “reduced to carbon” (by implication not valued for their full suite of benefits, including the other services provided by healthy, functioning forest ecosystems), or concerns that inexpensive REDD+ credits will allow developed countries to avoid responsibility of managing domestic greenhouse-gas emissions or flood the market.

Conclusion: REDD+ in a Future International Agreement

A new climate-change agreement should ensure effectiveness by providing incentives to countries for all substantial areas of mitigation potential, including the land use sector. How REDD+ will contribute to such an agreement may not become clear until larger decisions over the framing of the Durban Platform emerge—including legal form, overall approach to commitments and market mechanisms, and whether some new concept will replace “common but differentiated responsibilities.” REDD+ will also be affected by whether and how developed countries are willing to make commitments in the land use sector, their willingness to provide support for multilateral financing of forest-related mitigation, and how to manage emerging economies that make a domestic commitment but also want to participate in market mechanisms for additional actions beyond such commitments.

A “*facilitative model*” (as described by the Bodansky *Viewpoint* noted above) that offers flexibility to countries to define their commitments, both in form and substance, may be optimal to encourage broader participation and potentially greater ambition in the land use sector. There is a wide range of national circumstances related to land use—including rights and

¹⁷ Decision 12/CP.17, paragraph 7.

¹⁸ Decision 4/CP.15, paragraph 7.

tenure, management practice, ability to regulate, capacity to measure and monitor emissions and removals, and the effect of natural disturbances—as well as diversity in emissions profiles related to land use. A one-size-fits-all solution may not result in higher ambition and may be difficult to negotiate.

Flexibility for land use in a future agreement could allow for national pledges that integrate land use into economy-wide commitments for developed economies, encourage sectoral land use commitments by economies in transition, and provide financial incentives for least developed countries (LDCs)—who are unlikely to take on commitments or liabilities for their forests and only agree to mechanisms that provide “positive incentives” for forest protection.

Hybrid approaches, in particular for emerging economies, should be explored that combine political commitments for some level of domestic action but also provide for additional incentives for actions beyond such commitments. For example, an approach could allow domestic offsetting to meet international commitments in certain sectors with net removals from the land use sector (similar to how the Kyoto Protocol currently operates). Alternately, a hybrid approach could be handled through baseline setting above business-as-usual, to take into account domestic action, for international financing.

The downside of flexibility is, of course, the potential lack of stringency. In addition, a facilitative model would require negotiation around the level of adequacy and ambition of each country’s commitment, assessed as a package (e.g. consisting of some combination of an economy-wide target, sectoral commitments, policies and measures, etc.) against capacity and relative expected responsibility.

How to create a smooth pathway and framework for least developed, developing, and emerging economies to transition from being recipients of climate-change finance to increasing commitments in specific sectors and eventually to economy-wide commitments is additionally a technical challenge. The political momentum of REDD+ to date and a dedicated set of international negotiators with expertise on the land use sector may provide a useful arena for the UNFCCC to consider how to overcome this challenge. As a first step, countries should agree to build a framework for a system of incentives—both political and financial—on a common platform that is the basis for reporting, measuring performance related to mitigation commitments, as well as financing incentives. A separate set of rules for measuring performance of LULUCF and financing REDD+ should be avoided.

While these larger issues are at play under the Durban Platform, that does not mean REDD+ cannot make progress in negotiations. The ability of REDD+ to positively engage a wide range of developing countries in discussions on mitigation actions argues for continuing to accelerate REDD+ negotiations and leverage such discussions to create a positive environment to make progress more generally on mitigation. In addition, progress on technical REDD+ issues—for example those related to scale, scope, and reference levels—can lay the groundwork for a future agreement. The range of ongoing piloting and demonstration activities can build confidence in how REDD+ might work in practice and inform sound decision making under the UNFCCC and simultaneously accomplish meaningful emissions reductions.

Finally, it is important to highlight the role of domestic policies and mechanism design. Even if the UNFCCC were to create a new agreement that was ratified and included financial incentives for REDD+ actions, complementary policies would need to be in place in domestic law. The CDM provided for afforestation/reforestation (A/R) projects, but because it did not create fungible credits and because procedures were considered over-burdensome, it resulted in a relative lack of demand. In addition, the decision by the European Union to disallow such credits into the European Union Emissions Trading System further contributed to A/R's extremely low uptake—proving that the axiom “if you build it they will come” does not always hold true for the UNFCCC. Several developed countries, most notably the European Union, continue to express skepticism over the use of market approaches for REDD+ in the near-term at least.

Forests can play a significant role in helping to avoid dangerous climate change, and a global agreement under the UNFCCC would be uniquely placed to support efforts in this regard. The rising global demand for agricultural and other land-based products means that pressures on land are increasingly cross-border, and there is an accelerating expansion of the deforestation frontier. Smart domestic policies are critical to solving the deforestation challenge, and recent private sector interest in “sustainable agriculture” is encouraging. However, global agreements that value standing forests and provide incentives that positively impact land use change decisions can be an equally important tool. However, creating international incentives within a climate agreement for protecting forests, with their large mitigation potential, would require deeper commitments from major emitters if they are to be environmentally acceptable or politically palatable.

AUTHOR AFFILIATIONS

Donna Lee is an independent consultant and provides advice to governments, the private sector, NGOs and foundations on climate change and land use policy. She was formerly employed by the U.S. Department of State and coordinated the U.S. government's international policy on climate change and forests/land-use.

ACKNOWLEDGEMENTS

The Harvard Project on Climate Agreements is grateful to the Harvard University Center for the Environment for generous current support. The Harvard Project also receives support from Christopher P. Kaneb (Harvard AB 1990); the James M. and Cathleen D. Stone Foundation; ClimateWorks Foundation; and the Qatar National Food Security Programme. The Project receives ongoing support from the Belfer Center for Science and International Affairs at the Harvard Kennedy School. The Project is grateful to the Doris Duke Charitable Foundation, which provided major funding during the period 2007 – 2010.

The closely affiliated, University-wide Harvard Environmental Economics Program receives additional support from the Enel Endowment for Environmental Economics at Harvard University, the Enel Foundation, the Alfred P. Sloan Foundation, the Mossavar-Rahmani Center for Business and Government at the Harvard Kennedy School, Bank of America, Chevron Services Company, Duke Energy Corporation, and Shell.

ABOUT THE HARVARD PROJECT ON CLIMATE AGREEMENTS

The goal of the Harvard Project on Climate Agreements is to help identify and advance scientifically sound, economically rational, and politically pragmatic public policy options for addressing global climate change. Drawing upon leading thinkers in Argentina, Australia, China, Europe, India, Japan, and the United States, the Project conducts research on policy architecture, key design elements, and institutional dimensions of international and domestic climate policy. The Project is directed by Robert N. Stavins, Albert Pratt Professor of Business and Government at the Harvard Kennedy School.

Project Email: climate@harvard.edu

Project Website: <http://belfercenter.hks.harvard.edu/climate>