



Financing Forest Emission Reductions

A successful policy response to tropical deforestation must alter the underlying economic incentives that drive deforestation. This section provides an overview of how a system of financial incentives to developing countries should evolve over time in a phased approach, the scale of funding needed and the role played by both public and private sector mechanisms. Upfront financing to catalyze action and economic incentives for verified reductions are both critical.

Finding: The United States needs to mobilize substantial new financial resources to alter the economic incentives that drive deforestation.

Phased Approach

Altering the “rules of the game” to make standing forests

worth more than the pastures, fields and plantations that replace them will not be easy. The path to success will require tropical forest nations and developed nations to work together in several phases, which may not be entirely distinct but are useful for conceptualizing the path to verified reductions:

(1) Initial preparation and planning phase. Before making progress on reducing their forest emissions, countries will need to go through an initial preparation and planning phase, including new policy design, strengthening of national institutions, development of programs to channel benefits to local actors, stakeholder consultations and consensus building, field testing and evaluation.⁶⁸ In some cases, more comprehensive planning will be required to prepare for reforms in land ownership, tenure and

governance systems. Also in this first phase, strong local ownership of new forest-friendly development strategies will be absolutely essential, as well as developing the capacity and networks to accurately measure, report and verify forest stocks and emission reductions from forests. Developing nations simply will not pursue development strategies that feel as though they have been imposed by developed nations rather than having their origins in local interests and communities. This phase will require modest but critical upfront investments to catalyze action.

(2) Policy reform and implementation phase. In the second phase, nations will then need to finance and implement major policy reforms in order to bring about the behavioral changes and conditions that are necessary to unlock subsequent emission reductions. Examples include repurchasing timber concessions, investing in strong forest governance institutions and promoting alternative livelihoods to local communities. Like the first phase, the second phase will require upfront costs with modest initial benefits in terms of emission reductions. In some cases, “proxy” measures such as average carbon densities and deforestation rates could be used as a stepping stone to verified emission reductions to maintain a pay-for-performance focus. Unlike the first phase, the costs are likely to be substantial. Upfront financing will be needed, including from public sources during the early years of the program and in locations where risks are too high to attract private capital.

(3) Verified reductions phase. The third phase of action will require compensating nations that have the capacity, resources and policies in place for quantifying and verifying emissions reductions on a large scale through carbon-based pay-for-performance programs, including participation in carbon markets.

Principle: U.S. policies to reduce tropical deforestation should be compatible with a phased approach that initially involves technical assistance, then provides support for major policy reforms and culminates with the purchase of verified emission reductions, including through private sector carbon markets.

These phases should not be thought of as entirely separate and will be implemented at different rates according to national circumstances. Brazil, for example, is already pursuing activities in several phases simultaneously.

Success in reducing tropical deforestation will depend on mobilizing the resources from developed and developing nations needed to fundamentally realign public and private incentives. Investments are needed in each tropical forest country to modernize national and local forest institutions to better measure, monitor and verify the effectiveness of forest conservation programs, and to build the capacity necessary to implement major forest sector policy reforms. In many nations, significant funding is also required to strengthen forest governance, and to clarify land and carbon rights.⁶⁹

Recommendation: The United States should create major new financial incentives and public-private partnerships to encourage forest conservation by developing nations and to finance emission reductions that the United States would otherwise have to make via far more costly domestic strategies. The combined cost of all three phases is both measurable and substantial and will vary for each nation depending on a number of factors. Total global funding needs are estimated to gradually increase from at least \$2 billion in 2010 to \$10 billion in 2015 to \$30 billion a year in 2020 and beyond.⁷⁰ Tropical forest nations should certainly contribute financially to their own emissions reductions, and many are already doing so. Nonetheless, the financial returns from deforestation are too immediate and the heightened risks from climate change are too diffuse for most developing nations to pursue a more climate-friendly development path absent new external incentives. Based on U.S. practice in other areas of international cooperation (e.g., contributions to the United Nations, World Bank and other international

organizations), the U.S. share would fall between 20 and 25 percent of the global total, or scaling up from at least \$0.4-0.5 billion to \$6-7.5 billion per year from 2010 to 2020. As elaborated in the later section “Designing U.S. Climate Legislation,” based on analysis of existing U.S. legislative proposals, a total U.S. contribution of roughly \$14 billion per year in 2020 would fully enable the cost containment and emission reduction benefits of reducing tropical deforestation detailed throughout this report.

So far, funding for initial needs (planning and capacity building) has come mainly through traditional foreign assistance programs. The amounts provided—several billion total pledged over the next five years—fall well short of what is needed for success in all phases.⁷¹ Bilateral donations have come from a very small number of countries (Norway, the U.K., Australia and Germany), with Norway alone committing more than a billion dollars to support forest conservation solely in Brazil (and \$2.5 billion globally).⁷² The leading multilateral effort—the World Bank’s Forest Carbon Partnership Facility—has raised another \$150 million, including a \$5 million contribution from the United States, and its new climate-related Forest Investment Program could be significantly larger. The United States does not yet have a focused foreign aid program that links climate and forests. However, it urgently needs to do its part to fill the immediate funding gap, for both environmental and economic reasons. International forests play too large a role in both increasing the ambition of proposed U.S. climate policies and containing their costs for the United States to leave the readiness of these nations to reduce emissions to chance.

Traditional U.S. foreign assistance alone will not suffice. Fourteen billion dollars per year for reducing emissions in tropical forest nations would represent a 100 percent increase in the U.S. development assistance budget. Using auction revenues from a domestic cap-and-trade program—whereby Congress allocates a certain percentage of the value of emissions allowances made available to the private sector, as is done in the climate bill approved by the House—offers a far more attractive option for an appropriately dedicated, large-scale funding

stream for international forest conservation. These revenues could be used to support all three phases of action. A government-to-government program may also be essential to work with major countries like Brazil that oppose the use of forest-based emission reductions to offset industrial emissions. In addition, government funded programs could be designed to engage high-risk countries that private investors may ignore, such as the Democratic Republic of the Congo or Papua New Guinea, as well as countries with large forest stocks and low historical rates of deforestation that may not be suitable for market mechanisms. However, upfront funding before a cap-and-trade program potentially begins is also critical to catalyze action and allow the benefits of reducing emissions from tropical deforestation to be maximized.

Private Sector Investment and Carbon Markets

While higher levels of foreign aid and new, dedicated government programs are essential, private carbon markets are likely to present the largest-scale investment mechanism for international forest conservation. Under the cap-and-trade program outlined in the House climate bill, regulated companies would be allowed to offset their own emissions by financing emission reductions elsewhere. When done right, emissions trading programs harness private sector ingenuity to ferret out the lowest-cost emission reductions without sacrificing environmental goals. Indeed, by reducing overall costs, emissions trading programs allow companies to reduce emissions more quickly than they would otherwise, thus promoting more rapid environmental progress.

The United States made one of the pioneering efforts on emissions trading through the Clean Air Act in the early 1990s, allowing companies to meet new air quality standards at only a fraction of predicted costs and more quickly than expected. Through its Emissions Trading System (ETS), which now regulates almost half of Europe’s CO₂ emissions, the European Union has taken the lead in allowing regulated entities to offset greenhouse gas emissions through qualifying investments in developing nations under the Kyoto Protocol’s Clean Development

Mechanism (CDM). As noted above, projects that reduce deforestation are not allowed in this current system through 2012, although reforestation projects are included. Forest conservation offsets are trading in a variety of voluntary carbon markets—where companies voluntarily pay for emissions reductions without receiving compliance credit with regulators. These voluntary market investments were valued at \$331 million in 2007, with forest carbon transactions a mere 3 percent of the total global voluntary carbon market.⁷³ Overall, voluntary market investments pale in comparison to the size of the compliance markets for carbon in Europe and under the Clean Development Mechanism, which reached \$50 billion and \$13 billion respectively in 2008.⁷⁴

Commissioner Perspective:

MICHAEL MORRIS

Chairman, President and CEO, American Electric Power

“We must find solutions to address global warming in an economically viable way. Preventing deforestation and degradation in tropical regions is an important part of the answer — it is one of the most effective and inexpensive tools for addressing climate change and provides the best means of controlling the costs of other climate policies. Smart business planning demands action to prevent catastrophic climate change, but we must be certain that such action does not shake to its foundations an economy just beginning its global recovery. A commitment to protecting tropical and domestic forests as part of U.S. and global climate policy provides the cost-effective answer to the climate challenge.”

Whether the United States chooses to reduce tropical deforestation through government spending programs, private carbon markets or, as is the case in the House climate bill, a combination of both, the political acceptability of these programs will depend on how these programs are understood by the American people. Programs that look like traditional foreign aid

are unlikely to attract support, particularly during these difficult economic times. In contrast, the American people are far more likely to support cost-effective climate investments that protect the U.S. economy and U.S. jobs, contribute to solving the climate problem and advance other important national security and foreign policy objectives.

U.S. public and private resources should flow to nations that are doing their part to fight climate change by reducing deforestation in measurable and verifiable ways. With the exception of some initial funding for capacity building and early policy reforms, new U.S. funding from both private and public investments should pay for performance—measured in tons of emissions reduced. Public funds could also be used for stabilizing deforestation in countries with large forests but currently low deforestation rates. Although overseas financial flows associated with forest conservation could be substantial, these flows will be small compared to the sums involved in international trade of other global commodities, goods and services purchased by the United States.⁷⁵

Both Public and Private Funding Mechanisms Needed

Finding: Public and private investments are both necessary to generate funds at the speed and scale needed to solve the problem, and to engage a wide range of countries that may be only be suitable for one type of funding.

Unfortunately, as noted previously, few developing nations, including even middle income nations like Malaysia and Mexico, are ready to participate in forest carbon markets, either because of governance, monitoring and enforcement issues or due to simple lack of planning and experience with environmental markets. One recent analysis has shown that accounting for risk, governance and market-readiness considerations dramatically changes which nations are likely to generate large quantities of cost-effective forest carbon

offsets.⁷⁶ While necessary, financing for capacity building alone will not solve these problems. Governments in developing nations will need to make a decisive political commitment to understand and address what is happening in their forests—including enforcing existing bans on certain activities.

This lack of market-readiness may suggest two conclusions. First, market and non-market investments may both be essential to achieve needed emission reductions in countries that stand a chance of attracting private sector investments and those that do not. Second, early investments (even pre-2012) are urgently needed to give policy makers and companies confidence that the potential cost containment benefits of international forest offsets will prove real and that U.S. carbon markets will not be choked off by limited offset supply.

Commissioner Perspective:

ALEXIS HERMAN

Former Secretary of Labor

“A low-carbon economy holds tremendous potential for American job creation – but we have to get there first. A smart climate policy would address the near-term costs of transitioning to clean energy, and protecting tropical forests as part of that policy provides a solution. Not only can we reduce a major source of CO₂ – we can also lay a solid foundation for a new economy built on energy efficiency, advanced renewable power, smart grids and beyond. The promise of that economy is boundless, but the debate over how best to prepare for that economy will remain incomplete until the constructive role of tropical forest protection is recognized. It’s a win-win for our environment and our economy.”

International Cooperation

Prior international efforts to conserve tropical forests have had mixed results. In recent years, many forest-rich developing nations have dramatically expanded their national park systems, extended other legal protections to heavily forested areas and carried out some forest sector reforms.

Yet despite these national-level actions, more than \$1.1 billion invested in forest sector reform through the World Bank over the past decade, and larger sums provided directly by donor nations for forest conservation, global deforestation rates have not diminished.⁷⁷ Without new forms of concerted international action the next few decades will witness precipitous deforestation in the world’s three major forested regions: the Amazon Basin, the Congo Basin and Southeast Asia.

Finding: Past international cooperation on tropical forest has achieved some success, but has been far too limited in scale and on the whole ineffective.

