

Five Key Findings from *Why Forests? Why Now? The Science, Economics, and Politics of Tropical Forests and Climate Change*

Frances Seymour and Jonah Busch

- Achieving climate stability requires conservation of tropical forests.
- Protecting tropical forests could lower the overall costs and accelerate the achievement of global climate stability.
- Forests generate many non-climate goods and services that are essential to meeting sustainable development goals.
- Advances in technology have made stopping forest loss feasible.
- Rich countries and international organizations should act now to scale up REDD+ payment-for-performance agreements.

Key numbers on tropical forests and climate change

24–30 percent The fraction of annual global greenhouse gas emissions that could be reduced by halting tropical deforestation entirely and letting damaged tropical forests regrow

28 percent The estimated reduction in the cost of meeting the global 2 degrees C temperature target if tropical forests are included in the world's portfolio of mitigation actions alongside actions to reduce fossil fuel use

10+ The number of Sustainable Development Goals tropical forests contribute to

30 meters The resolution at which satellites now track deforestation worldwide

50+ The number of tropical countries that have formally expressed willingness to reduce emissions in exchange for external performance-based finance (REDD+)

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By reducing tropical deforestation, a cooler climate can be achieved more cheaply and quickly



Source: Busch, Engelmann, and Lépiessier (2016).

*"With Forests" refers to emission reductions from gross tropical forest cover loss and peat conversion; does not include emission reductions from forest degradation or forest regrowth.



1. Achieving climate stability requires conservation of tropical forests.

At the landmark Paris climate conference in 2015, countries unanimously pledged to keep global temperature rise to well below two degrees Celsius. Realistic hopes of achieving such goals will depend on a dramatic reduction in tropical deforestation. Forest loss is currently a major contributor to overall global greenhouse gas emissions, and protecting tropical forests is among the quickest and most affordable ways to decrease emissions. Ending tropical deforestation and letting damaged forests recover could reduce current annual global greenhouse gas emissions by as much as 24 to 30 percent. Forests are also a safe and natural carbon capture and storage technology. Halting tropical deforestation while allowing damaged forests to recover could secure an amount of carbon equivalent to almost one-third of current annual emissions from all sectors.

2. Protecting tropical forests could lower the overall costs and accelerate the achievement of global climate stability.

Early forest-related agreements between industrialized and developing countries have been concluded at a price per ton of avoided emissions far lower than the costs of alternative options to reduce emissions. In particular, forests offer a path to achieving the balance between carbon emissions and sequestration called for in the Paris Agreement that is dramatically cheaper than other carbon capture and storage technologies.

Tropical forests' goods and services contribute to development



3. Forests generate many non-climate goods and services that are essential to meeting sustainable development goals.

On average, rural communities in and around forests derive more than one-fifth of household income from gathering wild forest products such as fuelwood, food, and medicinal plants. Forested watersheds constitute a green infrastructure that supplies the water for irrigating agricultural crops, generating hydroelectric power, and providing clean drinking water and sanitation. Intact forest vegetation increases resilience to the impacts of extreme weather events, including those exacerbated by climate change, such as landslides on steep slopes and storm waves that batter coastlines. Forests thus contribute to health and safety as well as to food and energy security.

4. Advances in technology have made stopping forest loss feasible.

The last decade has witnessed a revolution in technology to monitor changes in forest cover. Rapid advances in remote-sensing technology and computing power and new norms of transparency have changed everything. It is now possible not only to assess global changes in tree cover annually at a resolution of 30 meters, but also to detect deforestation events (such as clearing and fires) with sufficient frequency to enable response in a matter of days.

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5. Rich countries and international organizations should act now to scale up REDD+ payment-for-performance agreements.

Rich countries and international organizations should aggressively develop new sources of forest finance outside of development assistance budgets and institutions. To do this, they should:

- Allow international forest offsets in current and future compliance markets
- Pursue using their creditworthiness to attract private sector finance to forest protection
- Within existing flows of climate finance, dedicate a larger share to forests, and allocate more of that share to results-based finance

More than 50 countries have initiated REDD+ programs, but only a few have access to performance-based finance with international funding

