

Ecosystem Co-Benefits of REDD+
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We support a robust REDD+¹ mechanism for climate change mitigation that also protects and enhances the ecological co-benefits essential for the integrity and sustainability of forest ecosystems and for human well-being.

Tropical forests are a critical component of international climate change mitigation strategies; however, the benefits of reducing deforestation and degradation, conserving forests, and enhancing forest carbon stocks extend far beyond carbon-related impacts. In addition to serving as storehouses of carbon, tropical forests house critical terrestrial and aquatic habitats that contain more than half of the planet's species diversity. However, biodiversity is not the only indicator of ecosystem resilience, and it is therefore important to consider protecting the full range of tropical forest services when implementing REDD+. Tropical forests maintain critical ecosystem functions such as water cycling and purification, local and regional climate processes, and soil and biogeochemical processes.² These ecosystem co-benefits may not be fully realized unless a REDD+ mechanism is designed to promote their protection and enhancement. REDD+ policies should be implemented in parallel with national/regional zoning plans designed to ensure that the major hydrological, habitat, and climate functions will be maintained.

The current negotiating text, produced by the UNFCCC's Ad Hoc Working Group on Long-term Cooperative Action (LCA) at its eighth session in Copenhagen, includes a safeguard to ensure that REDD+ actions incentivize the protection and conservation of natural forests as well as their associated ecosystem services. This safeguard is important and should be maintained in the text, along with the inclusion of specific language identifying hydrological, soil and habitat functions as key ecosystem services. Operationalizing this safeguard could be encouraged through guidance on monitoring indicators for each of these functions that could be carried out simultaneously with forest cover/carbon monitoring.

A successful REDD+ mechanism must be based on robust accounting of decreases in emissions, increases in removals, and/or maintenance of forest carbon stocks. Under this framework alone however, it may be possible to receive incentives for replacing ecologically valuable but lower carbon natural ecosystems, such as grasslands and shrublands, with higher carbon plantation forests. The safeguard against conversion of natural forests contained in the report of the AWG-LCA from Copenhagen should thus be extended to apply to natural, intact non-forest ecosystems, as well.

¹ We support a mechanism that encompasses reduced emissions from deforestation and forest degradation (REDD), sustainable management of natural forests subject to strict environmental and social criteria and robust carbon accounting, conservation of existing natural forests and maintenance of carbon stocks including in areas with high forest cover and low deforestation rates, enhancement of forest carbon stocks through the restoration/improvement of existing but degraded forests, and increasing forest cover through environmentally appropriate afforestation and reforestation.

² Stickler et al. 2009. The potential ecological costs and cobenefits of REDD: a critical review and case study from the Amazon region. *Global Change Biology* (15):2803–2824.

Incentivizing REDD+ may also have the unintended consequence of displacing agricultural expansion to less carbon-rich biomes such as native savannas, grasslands, and woodlands. While the carbon benefits of conserving these non-forest ecosystems may be relatively low, the ecological services they provide, including habitat diversity, and thus biodiversity; watershed health; and soil conservation are vital to human well-being and ecosystem functioning at the landscape level. REDD+ activities should therefore be undertaken within the context of integrated land use planning that maintains ecologically valuable non-forest ecosystems as well as forests.

REDD+ activities can play a significant role in protecting and enhancing vital forest ecosystem services, and thus can contribute to the maintenance of ecosystem function across entire landscapes. Even small flows of properly targeted carbon incentives could lead to enormous ecological benefits for both interconnected ecosystems and the people who depend on them. For example, incentives for the protection and restoration of riparian zone forests can provide vital protection to aquatic ecosystems, which support both biodiversity and human livelihoods, in addition to a forest carbon benefit. An international REDD+ mechanism should therefore consider the protection and enhancement of a broader range of ecological co-benefits that will be evaluated through robust monitoring and reporting frameworks. Many of these co-benefits could be monitored through collecting additional data using the same or similar monitoring technologies, techniques, and frequencies as those deployed for the evaluation of carbon stocks.³

In addition to committing Parties to consider ecological co-benefits including, but not limited to, biodiversity, a REDD+ framework should:

- Avoid definitional loopholes that allow for perverse results, such as those currently used in land use, land-use change and forestry accounting under the Kyoto Protocol⁴;
- Continue to encourage broad participation by all developing countries;
- Include all tropical forests at risk of being deforested or degraded;
- Include incentives for activities, such as enforcement, that improve management of protected areas, which are often designed to encompass highly biodiverse systems⁵, as well as other areas identified as high ecological priorities;
- Develop monitoring and reporting approaches for the ecological co-benefits addressed above (i.e., habitat for biodiversity, watershed functions, local and regional climate processes, and soil and biogeochemical processes) in the context of integrated regional- or landscape-scale planning; and
- Provide adequate financial resources for the development and maintenance of monitoring and reporting approaches and frameworks for ecological co-benefits as well as for carbon.

³Stickler et al. 2009. The potential ecological costs and cobenefits of REDD: a critical review and case study from the Amazon region. *Global Change Biology* (15):2803–2824.

⁴ Existing loopholes within current LULUCF rules include a forest definition that does not distinguish between primary or natural forests and planted production forests and a definition of forest management that allows Parties to individually select the practices for which they will account.

⁵ Many legally protected areas continue to experience degradation and deforestation despite their protected status, but could be more effectively protected with additional financial resources.