

Joint Position on Ecological Co-Benefits of REDD+

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We support a robust REDD+¹ mechanism for climate change mitigation that also protects the ecological co-benefits essential to maintaining the integrity and sustainability of tropical forest ecosystems.

Tropical forests are a critical component of international climate change mitigation strategies; however, the benefits of reducing deforestation and degradation extend far beyond carbon-related impacts. In addition to serving as storehouses of carbon, tropical forests are critical to the maintenance of aquatic and terrestrial habitat for floral and faunal biodiversity, watershed functions (including water cycling and water quality), local and regional climate processes, and soil and biogeochemical processes.² The design of an international REDD+ mechanism must ensure these ecological co-benefits are both protected and enhanced through the implementation of forest carbon-related policies.

The text currently under consideration by the UNFCCC's Ad Hoc Working Group on Long-term Cooperative Action (LCA) includes language advocating the use of safeguards to protect biological diversity in REDD+ host countries, while language regarding the protection and enhancement of ecosystem services has not yet been agreed upon. While biodiversity is an important indicator of ecosystem health, a functional ecosystem depends on the interaction of multiple additional processes and components.³ Thus, an evaluation of the ecological impacts of REDD+ activities should focus on a broad range of ecological components and not solely on biodiversity.

Overall, watershed functions are best protected and maintained under a more even spatial distribution of forests. REDD+ activities can provide incentives for the protection and restoration of larger, more connected tracts of forest than would be possible under REDD alone, thus enhancing the maintenance and provision of watershed functions that are disrupted by forest fragmentation and degradation. Protecting larger tracts of forest increases ecosystem function and increases protection for carbon stocks, ultimately leading to a higher likelihood of success for REDD+ overall.

Compensation for protecting forest carbon stocks through conservation activities under REDD+ will provide incentives to protect standing forests and the biodiversity and ecosystems they house; a mechanism that does not incentivize conservation will limit REDD's effectiveness by failing to capture the full range of benefits associated with intact forest ecosystems. Incentives for conservation are especially important for countries with high forest cover and historically low

¹ We support a mechanism that encompasses reduced emissions from deforestation and forest degradation (REDD) as well as restoration, environmentally appropriate native afforestation and reforestation, sustainable management of native forests and conservation of carbon stocks of native forests from the start of the mechanism.

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.

³ Costanza et al. 1997. The value of the world's ecosystem services and natural capital. *Nature* 387: 253-260.
Engel, Pagiola and Wunder. 2008. Designing payments for environmental services in theory and practice: an overview of the issues. *Environmental Economics* 65(4): 663-674.

deforestation rates (HFLD). HFLD countries contain large tracts of intact forest that are especially important for biodiversity and provide important ecosystem services that contribute to adaptation, reduce vulnerability and enhance species resilience in addition to providing carbon sequestration. A REDD mechanism that excludes countries with low historic rates of deforestation will likely result in the displacement of deforestation and forest degradation pressures and a net increase in emissions from those countries omitted from a REDD mechanism.⁴

Incentivizing conservation of carbon stocks in intact forests may have the unintended consequence of displacing agricultural expansion to lower carbon biomes such as native savannas, grasslands, and woodlands. While the carbon benefits of conserving these non-forest ecosystems may be low relative to intact tropical forests, the ecological services they provide, including habitat provision for endemic species, watershed health, and soil conservation, are vital to human well-being and ecosystem functioning at the landscape level. REDD+ conservation activities should therefore be undertaken within the context of integrated land use planning that maintains ecologically valuable non-forest ecosystems as well as intact tropical forests.

The enhancement of existing carbon stocks through afforestation and reforestation can further relieve pressure on ecologically valuable primary forests and restore connectivity in fragmented landscapes. However, afforestation and reforestation should prioritize the use of a mix of native tree species and be conducted only on ecologically appropriate lands⁵ in order to ensure ecosystem integrity and function. Afforestation and reforestation should be included in REDD+ only if definitions or other policy measures are in place to prevent the conversion of natural forests or other natural ecosystems to plantations. Sustainable management of native forests, when conducted in accordance with the appropriate ecological and environmental guidance (i.e., recognized environmental standards such as the Forest Stewardship Council's principles and criteria), will limit carbon losses and enhance ecosystem services relative to business-as-usual management activities.

While the REDD+ framework currently being developed by the UNFCCC includes draft language on biological diversity and environmental safeguards, they may not be sufficient to maintain and enhance vital ecosystem services. REDD and REDD+ activities can play a significant role in preserving and enhancing these services, thus contribute to the maintenance of functioning ecosystems and landscapes. Even small flows of carbon revenue properly targeted could confer enormous ecological benefits for contiguous ecosystems and the humans who depend on them. For example, incentives for the conservation and restoration of riparian zone forests can provide vital protection to linked aquatic ecosystems in addition to a forest carbon benefit. An international REDD+ mechanism should therefore consider the protection and maintenance of a broader range of ecological co-benefits that can be evaluated through robust monitoring, reporting, and verification (MRV) frameworks. Many of these co-benefits could be monitored using the same technologies and methods that will be employed to monitor carbon stocks, thus making MRV frameworks for co-benefits efficient and relatively inexpensive.⁶

⁴ Busch et al. 2009.

⁵ Parrotta et al. 1997. Catalyzing native forest regeneration on degraded tropical lands. *Forest Ecology and Management* 99(1-2):1-7.

⁶ Stickler et al. 2009. The potential ecological costs and cobenefits of REDD: a critical review and case study from

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

- Close definitional loopholes that allow for perverse results, including the conversion of natural forests to plantations;
- Encourage broad participation by all tropical forest countries, and include compensation mechanisms for countries that have successfully maintained high forest cover to assist them in continuing on the path to a low carbon economy.
- Include all tropical forests and include incentives for activities that improve enforcement in and around protected areas. Many of these areas continue to experience degradation and deforestation despite their protected status, but could be more effectively protected with additional financial resources; and
- Develop MRV approaches for each of 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.