

## **Carbon markets: A new opportunity to protect tropical forests**

Tropical forests are the world's richest biodiversity resource and a key regulator of carbon dioxide levels. Deforestation relentlessly destroys precious biodiversity, natural habitat and genetic resources.

- We are losing tropical forests at a rate of between 70,000 and 170,000 square kilometres a year.<sup>1</sup>
- The local extinction of one species significantly changes the population size of others, leading to species extirpation. As a consequence, twenty five percent of the world's mammal species and eleven percent of bird species are at a significant risk of total extinction.<sup>2</sup>
- The demise of tropical forests and their associated genetic diversity also imperils medical research and agriculture.<sup>3</sup>

There are a multitude of international agreements intended to help conserve the biological diversity of our planet: the Convention on Biological Diversity<sup>4</sup>, the Ramsar Convention on Wetlands<sup>5</sup>, the Convention to Combat Desertification (UNCCD)<sup>6</sup> and the Kyoto Protocol (UNFCCC)<sup>7</sup>. None of them are succeeding in halting tropical deforestation or reducing its effects and for a simple reason; it is more profitable to cut a tree down than to leave it standing. For forest communities and landowners felling trees for timber, fuel and agriculture, however destructive, generates real income. No one pays them, under any of these treaties, to protect the forests which would provide enormous benefits to climate change mitigation and adaptation as well as to biodiversity.

The preservation and restoration of tropical forests represent the single largest means of reducing GHG emissions over the next half century.<sup>8</sup> Ninety percent of the exchange of carbon between the atmosphere and the Earth occurs through photosynthesis primarily in the world's forests.<sup>9</sup> Deforestation is by far the largest source of emissions from developing countries, contributing an amount greater than total US fossil fuel emissions.<sup>10</sup> Indonesia, is now the world's third largest emitter after the US and China, almost entirely because of deforestation<sup>11</sup>.

Payments for carbon dioxide sequestration offer the only realistic opportunity to protect and restore forests, allowing a shift from the current paradigm of exploitation to one of stewardship. The Stern Report estimates that it will cost \$15-20 billion per year for the next several decades to reduce the current rate of tropical deforestation by 50%. The amount of money required is vastly greater than that of the total global public sector and non-governmental organisation annual expenditure on conservation. Without this investment, targets to reduce the rate of biodiversity loss by 2010, and the Millennium Development Goal No.7, to ensure environmental sustainability, are unlikely to be met. Donor governments and agencies currently show little sign of being able to contribute the level of funding necessary to achieve these global aspirations.<sup>12</sup>

The fact that neither the Kyoto Protocol nor the European Union Emissions Trading System (EUETS) provide for such payments is unacceptable. At present there are no meaningful measures in place in either system to promote the protection and regeneration of tropical forests in developing countries.<sup>13</sup> The European Union explicitly bans all forest credits from its system even if they comply with Kyoto Protocol regulations. The Kyoto Protocol itself has created a perverse incentive for developed countries to protect their own forests-which count towards their treaty obligations and encourage deforestation in developing countries who gain no credit under the treaty for preserving their forests. The only forestry projects in developing countries to feature in the Kyoto Protocol are 'afforestation and reforestation' activities through the Clean Development Mechanism (CDM) and avoided deforestation is excluded altogether. Sadly the existing rules for CDM forest projects are so onerous that there are currently no commercial project in the world which are operational. Private sector investment, the only conceivable source of the funding required, has been stifled.

Avoided deforestation, reforestation, re-vegetation, afforestation and sustainable forestry management practices all reduce GHG emissions and generate carbon emissions reductions. Properly managed, they can provide sustainable livelihoods, enhance watersheds, protect soils and crucially, protect biodiversity.

The carbon market can be harnessed to sell emission reductions from forestry activities to provide a new vehicle to channel the enormous sums required to make a real difference and provide a long-term and sustainable alternative to continued forest and species loss.

The G8+5, by taking the lead now in stating the intention to include all sustainable forestry and land-use activities in the next phase of carbon market development, could stimulate immediate private sector investment in the sustainable management of tropical forests for their ecological services including carbon storage and sequestration, watershed protection and erosion control. This would bring benefits to biodiversity conservation and to local communities, as well as contributing to the stabilisation of global climate. Critically, it would reduce the risk of extinction of up to 30% of the world's species which are threatened by global warming in the next few decades.<sup>14</sup>

The international community, prompted by a proposal from 15 rainforest countries, is scheduled to complete a two year dialogue of deforestation at the UNFCCC in Indonesia this December.<sup>15</sup> The European Union is now conducting a review of its emissions trading system. The CDM mechanism must be radically reformed to encourage afforestation and reforestation and provision must be made for avoided deforestation to be included in the Kyoto Protocol and all three must be included in the EUETS.

These reforms cannot wait until 2012 or beyond. We must create a global carbon market that is inclusive of all forest activities and soon. Early action crediting for avoided deforestation in both the Kyoto Protocol and European Union trading system is essential to curb deforestation in the short-term and stabilize the climate. A strong voluntary carbon market with high integrity which promotes innovation can and must also play an important role in the protection of forest ecosystems. Positive signals from policymakers on all these issues are urgently needed to combat climate change, and ensure the preservation of our tropical and sub-tropical forests the world's most precious terrestrial ecosystems.

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<sup>1</sup> UNEP, Global Environmental Outlook, 2000

<sup>2</sup> Mathews, E., et al. 2000. Pilot Assessment of Global Ecosystems: Forests. Washington, D.C.: World Resources Institute. p.16

<sup>3</sup> Voeks, R et al, Forgetting the Forest: Assessing Medicinal Plant Erosion in Eastern Brazil, Economic Botany, Vol 50, Issue Sp1

<sup>4</sup> <http://www.biodiv.org>

<sup>5</sup> <http://www.ramsar.org/>

<sup>6</sup> <http://www.unccd.int/>

<sup>7</sup> <http://unfccc.int>

<sup>8</sup> A Cost Curve for Greenhouse Gas Reduction, The McKinsey Quarterly, February 2007.

<sup>9</sup> J. K. Winjum, R. K. Dixon and P. E. Schroeder, 'Forest management and carbon storage: an analysis of 12 key forest nations', *Water, Air, and Soil Pollution*, 70: 1-4, 1993, pp. 239-57.

<sup>10</sup> Stern, Nicholas, 2006, "Stern Review: The Economics of Climate Change", November 2006: Watson, Robert et al. eds." Land Use, Land-Use Change, and Forestry. A Special Report of the IPCC", Cambridge University Press 2000.

<sup>11</sup> Wetlands International: <http://www.wetlands.org/ckpp/publication.aspx?ID=1f64f9b5-debc-43f5-8c79>

<sup>12</sup> Castro, G. and I. Locker. 2000. Mapping Conservation Investments: An Assessment of Biodiversity Funding in Latin America and the Caribbean. Washington, D.C.: Biodiversity Support Program.

<sup>13</sup> See Marrakech Accords Decisions, COP 7 of the UNFCCC, Decision 11/CP.7 and See EU ETS legislation: [http://ec.europa.eu/environment/climat/emission/implementation\\_en.htm](http://ec.europa.eu/environment/climat/emission/implementation_en.htm)

<sup>14</sup> IPCC Fourth Impact Assessment, April 2007.

<sup>15</sup> UNFCCC. 2005/CP/L2, "Reducing Emissions from Deforestation in Developing Countries: Approaches To Stimulate Action". 06 December 2005.