



## **Reducing Emissions through Avoided Deforestation in the Maya Biosphere Reserve**

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**Rainforest  
Alliance**

*Cover photos: Created in 1990, Guatemala's Maya Biosphere Reserve was established to ensure the conservation of over two million hectares of land rich in natural and cultural heritage. The Rainforest Alliance has been active in the reserve for more than a decade, certifying forestland to the standards of the Forest Stewardship Council (FSC), linking FSC-certified operations with interested buyers, and, recently, helping communities earn payments for carbon sequestration through avoided deforestation.*

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# Reducing Emissions through Avoided Deforestation in the Maya Biosphere Reserve

## Background

In 1990 the government of Guatemala created the Maya Biosphere Reserve (MBR) with over two million hectares in northern Petén to guarantee the preservation of the natural and cultural patrimony for future generations. For administrative purposes the MBR is divided into three zones with varying degrees of resource management:

- 1) Core protected area, designated for strict protection;
- 2) Multiple use zone (MUZ), designated for managed and sustainable low impact activities supported by USAID such as extraction of timber and non-timber forest resources under Forest Stewardship Council (FSC) certification; and,
- 3) Buffer zone, a 15 km wide zone at the southern limits of the MBR where agriculture and land ownership are permitted.

Rainforest Alliance has been active in the MBR for over eleven years, beginning with FSC training courses in 1996. The first community concession in the MBR was FSC-certified in 1998. Currently, Rainforest Alliance's Training, Extension, Enterprises and Sourcing (TREES) program is working to build links between certified operations in the MBR and buyers of FSC-certified timber with the main support of USAID under a cooperative agreement that was signed in 2006.

By late 2007, 478,000 hectares in the MBR had been certified, representing 60% of the MUZ or 23% of the total land of the MBR. In 2007 Rainforest Alliance undertook a study to better understand the impacts of FSC forest certification on conservation by examining deforestation rates and the occurrence of wildfires on FSC-certified concessions compared other land-use zones within the MBR. The study's two principal findings are:

- 1) From 2002 to 2007, the average annual deforestation rate for the entire MBR and the core protected areas was 20 times higher than in the FSC-certified concessions; and,
- 2) Since 1998 the forest area burned annually in the MBR as a whole has varied from 7 - 20 percent while the area affected on the FSC-certified concessions has steadily dropped from 6.5% in 1998 to 0.1% in 2007.<sup>1</sup>

## The concept

The success of the FSC-certified concessions in maintaining forest cover is likely due to the vested interests of communities and two private companies to invest in improved management practices and enterprise development supported by donors, government and non-government organizations. Nonetheless, this sustainable forest management model is fragile due to increasing pressures from alternative land uses and continued dependence on outside sources of support. To consolidate the conservation and livelihood gains made to date in the MBR, the "Payment for Environmental Services Project in the Maya Biosphere Reserve", GuateCarbon for short, is a pioneer pilot effort spearheaded by Rainforest Alliance that will mitigate emissions of CO<sub>2</sub> from the avoidance of deforestation in the biologically diverse Petén region of Guatemala while creating a new source of revenue for communities to invest in conservation and to meet pressing social needs.

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<sup>1</sup> Hughell, D. and R. Butterfield. Impact of FSC Certification on Deforestation and the Incidence of Wildfires in the Maya Biosphere Reserve, Rainforest Alliance, 2008.

The initiative is an outgrowth of Rainforest Alliance's long commit to assisting communities to build competitive forest enterprises based on sustainable management of community concessions that have been certified to the Forestry Stewardship Council (FSC) standard. Rapidly evolving voluntary markets for verified emissions reduction credits (carbon credits), growing demand for carbon credits, and increasing interest on the part of government and the international community to support innovative approaches to mitigation of climate change from forestry and agriculture sectors, have created the right condition for the GuateCarbon project.

Led by Rainforest Alliance and with the USAID financial support, development of the concept for this pilot began in 2006 with participation of the Asociación de Comunidades Forestales de Peten (ACOFOP), Consejo Nacional de Areas Protegidas (CONAP), Ministerio de Ambiente y Recursos Naturales (MARN), the Instituto Nacional de Bosques (INAB) and two private companies with concession in the MUZ – Gibor and Baren. During the 2008 other donors such as the IDB decided to support this pilot project.

The objective of GuateCarbon is to contribute to sustainable development in environmentally sensitive areas by establishing a transparent and cost-effective scheme for the payment of environmental services as part of broader community forest management programs located in the MUZ. The pilot tests the principle that the value of environmental services, beginning with forest carbon, can be monetized through their sale in competitive markets in order to maximize benefits to both buyer and those who have rights over these resources in an equitable way. Up to 470,000 hectares of forest area will be brought under the project with an estimated potential to offset 0.8 million tons CO<sub>2</sub>-equivalent per year from avoided deforestation or approximately 16 million tons CO<sub>2</sub>-e over 20 year life span. Benefits and stakeholders include:

- 1) Increased incomes for more than 1,000 forest dependent families;
- 2) Local jobs for unemployed and under-employed local workers;
- 3) Active support from local and government institutions to invest in the sustainable development process in the Maya Biosphere Reserve; and,
- 4) Direct private sector participation.

### **Implementation**

GuateCarbon will support all steps involved in bringing standing carbon in MBR certified forests to market and establishment of the mechanism for administration of revenues generated from the sale of carbon credits. Rainforest Alliance is playing a key coordinating role among stakeholders and providing technical guidance to project development activities, most of which will be implemented by competitively contracted service providers and consultants (baselines, quantification, validation, preparation of the project design document, verification, etc.). Main activities are organized under three components.

#### Component I: Structuring of the payment for environmental services program

- Provide technical assistance on regulatory and legal issues;
- Define methodologies for the quantification of carbon emission reductions from avoided deforestation in FSC managed tropical forests;
- Establish baselines and quantify carbon emission reductions from avoided deforestation;
- Conclude agreements between the government and community forest concessions; and,
- Marketing of carbon credits in the voluntary market.

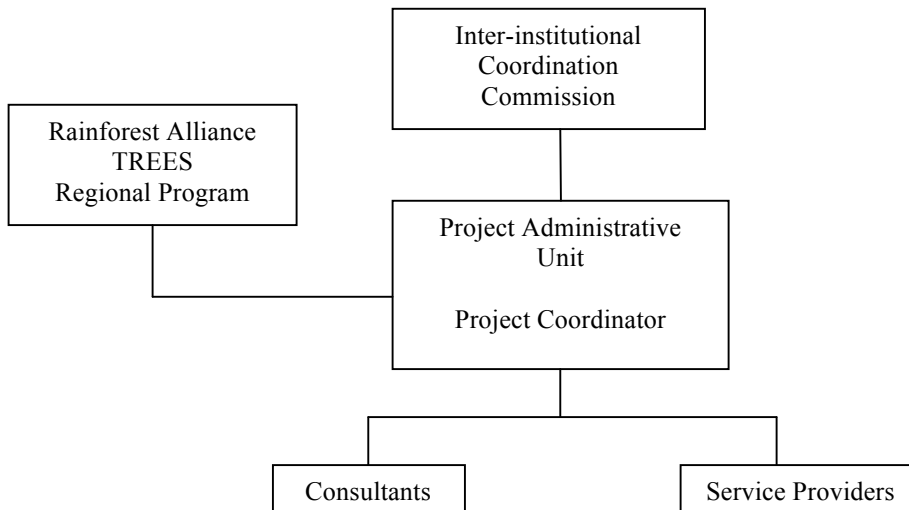
Component II: Structuring the Reinvestment Program

- Carry out an analysis of investment alternatives for environmental service payments that could be applied to the MBR;
- Define a Reinvestment Plan including eligibility criteria for project funding; and
- Define operational and administrative arrangements for the Reinvestment Plan modeled on a trust fund.

Component III: Outreach and communications to the public and private sector

- Organize public events;
- Prepare case studies and publications;
- Ensure mass media coverage; and
- Organize a high-level end of project event.

GuateCarbon is being implemented through a Project Administrative Unit headed by a national project coordinator. This person has the necessary technical foundation on carbon and environmental services and, as importantly, the experience and statute to ensure high-level inter-institutional coordination, bring together private investors and public stakeholders, navigate legal issues and oversee project management. A Coordination Commission comprised of the Rainforest Alliance, ACOFOP, representatives of the community forest concessions in the MUZ, representatives of the private concessions, and CONAP is overseeing strategy and progress and ensuring communications across institutions.



The Project Administrative Unit will: 1) Implement approved work plans; 2) Supervise consultants and service providers; 3) Prepare administrative, technical and financial reports and; 4) provide institutional coordination. The Coordinating Commission will: 1) Advise and approve work plans; 2) Revise and approve the Reinvestment Program and; 3) Assist in communicating results.

**Funding**

The development phase of GuateCarbon is financed from four sources:

1. The United States Agency for International Development (USAID), under a cooperative agreement with Rainforest Alliance has supported the concept, proposal and facilitated the project in all its phases. Under this cooperative agreement the project idea was conceptualized and formalized among the main stake holders including the concessionaries and the government representatives. USAID continues to support the project with technical assistance, market linkages and facilitation for the project's structural development.
2. Inter-American Development Bank-Multi-lateral Investment Fund: Under a contract with Rainforest Alliance, IDB-MIF funds support staffing and operation of the Project Administrative Unit and consultancies and activities associated with Components II and III.
3. Gibor and Baren: These two private companies hold industrial concession in the MUZ that are part of the larger carbon offset investment. Each will invest in contracting professional services associated with Component I.
4. National Council of Protected Areas and Asociación Gremial de Exportadores de Guatemala, financing the development of the project's design document.
5. The Rainforest Alliance has provided technical assistance, project oversight, equipment, office space, operations and marketing for the project.

**Progress to date**

- Coordination commission established;
- Legal and regulatory framework in revision; carbon rights being defined;
- Sub-national baseline (for an area of 36,000 square kilometers) in which to situate the project under development under development;
- Project design document under development;
- Preliminary agreement achieved between CONAP, Gibor, Baren and communities on distribution of future revenues from sale of project credits;
- Climate trust fund for managing project funds under development;
- Educational and marketing work ongoing to stimulate and address interest from communities and governments with similar potential project opportunities and potential investors; and
- Committed support from the Minister of Environmental of Guatemala and the executive secretary of CONAP.

***For more information about GuateCarbon, please contact:***

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