



**USAID**  
FROM THE AMERICAN PEOPLE



View from above the canopy of the Maya Biosphere Reserve. It covers 20% of Guatemala. Photo by Sergio Izquierdo.

# LESSONS FROM CONSERVATION ENTERPRISES IN THE MAYA BIOSPHERE RESERVE OF PETEN, GUATEMALA

## INTRODUCTION

*Active community forestry concessions in the Maya Biosphere Reserve in Petén, Guatemala boast a near-zero net deforestation rate. This is especially notable considering that the concessions are located in a region with one of the highest deforestation rates in the world. How was this achieved? One of the keys to this success was that the communities who hold these concessions established a variety of conservation enterprises, including selling certified timber, xate palm, chicle gum, and allspice, as well as ecotourism. This brief revisits outcomes and assumptions along a theory of change to describe lessons from nearly two decades of external support to conservation enterprises in Petén.*

# RAINFOREST ALLIANCE'S CONSERVATION ENTERPRISE APPROACH

For nearly 20 years, the United States Agency for International Development (USAID) has provided support for several international and local organizations to work on conservation enterprises in Petén, Guatemala, including Conservation International, ProPetén, the Tropical Agricultural Research and Higher Education Center, Chemonics, the Biodiversity and Sustainable Forestry Indefinite Quantity Contract consortium led by Chemonics, and the Rainforest Alliance. These organizations worked with the Guatemala National Council for Protected Areas, which oversaw all forest management activities in the Maya Biosphere Reserve. This synthesis of findings and lessons come from a review of available literature and interviews with the Rainforest Alliance on their experiences working in the Maya Biosphere reserve. This brief is framed with the key assumptions in a generalized theory of change (see Figure 1) for how supporting enterprises contributes to a reduction in threats to biodiversity. The findings and lessons from the Rainforest Alliance's conservation enterprise approach in the Maya Biosphere Reserve offer USAID, and the conservation community, a rich vein of information that can help improve understanding of what works – and what does not – and under what conditions, when designing and implementing enterprise approaches to biodiversity conservation.

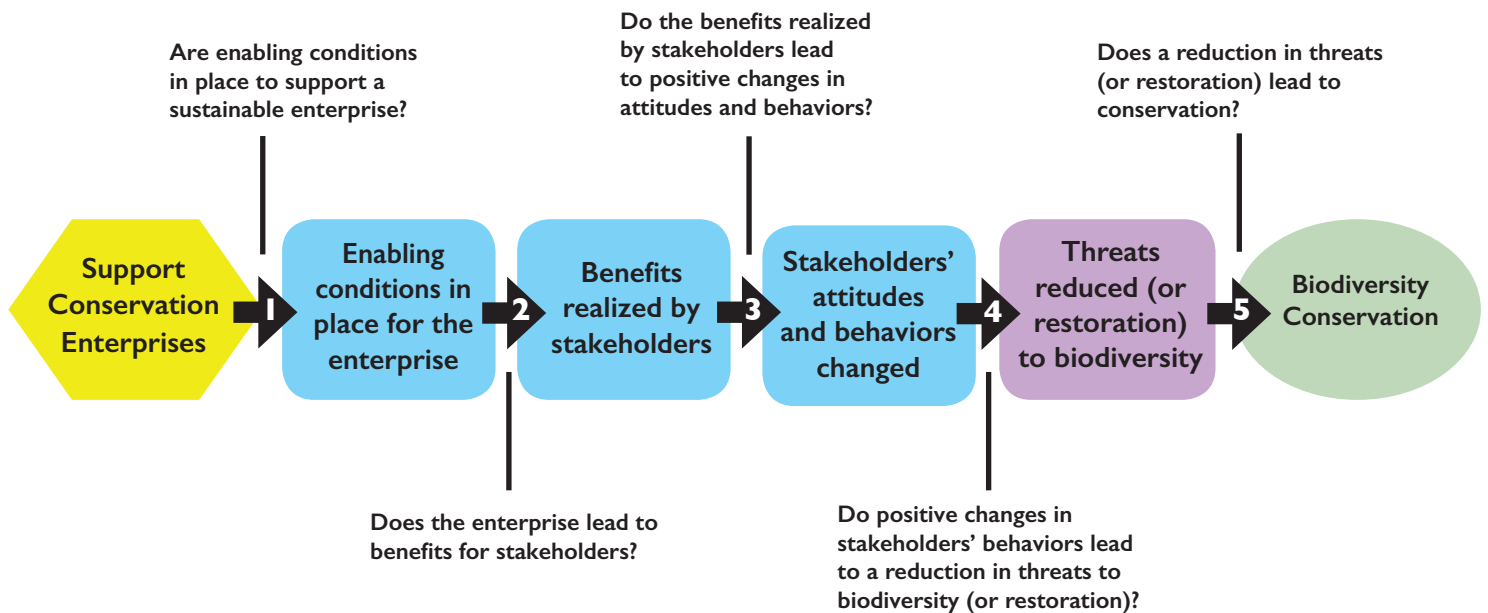


Figure 1. Results chain depicting the overarching theory of change and learning questions under USAID's [Cross-Mission Learning Agenda for Conservation Enterprises](#)

Created in 1990, the Maya Biosphere Reserve covers 20% of Guatemala. During the 1990s, the Association of Petén Forest Communities played a key role in negotiating local rights to forest resources for member communities through the granting of concessions. Forest concessions were legally granted based on Guatemala's Protected Areas Law, in compliance with the 1996 Peace Accords, which included a specific agreement on rural access to land and resources. By 2000, the National Council of Protected Areas had allocated about a quarter of the reserve as concessions to community organizations (see Multiple Use Zone in Figure 2), along with two industrial concessions. The 12 community organizations that were granted concessions consisted of six non-resident

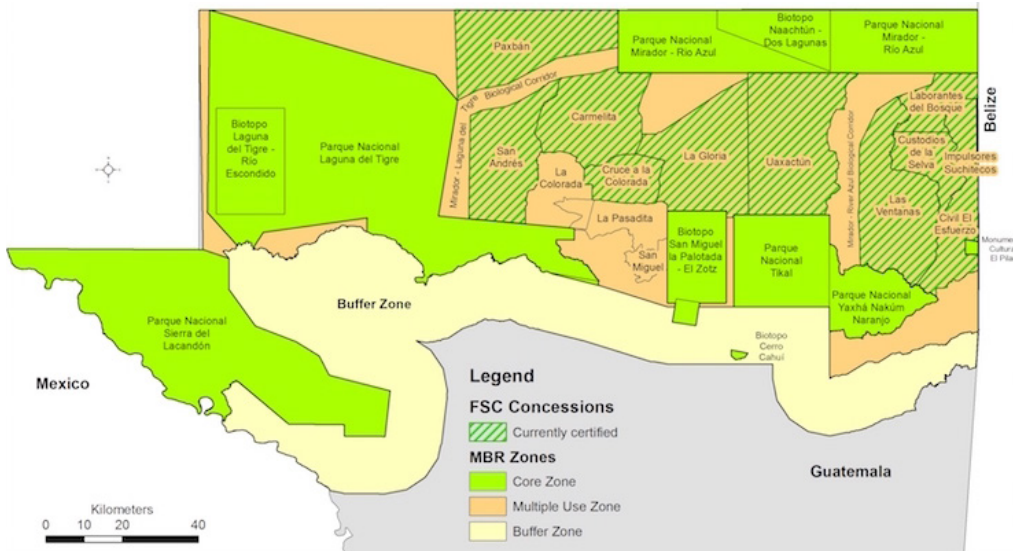


Figure 2. Community Concessions in the Maya Biosphere Reserve

community groups, two traditionally forest-dependent resident community groups, and four resident community groups (migrants from other parts of Guatemala who primarily practiced agriculture for their livelihood). Concessions were granted for 25 years and contracts are renewable; they

permit the use of timber, the extraction of non-timber products such as xate palm leaf and chicle gum, and the development of tourism. To retain contract validity, concessions were required to achieve and maintain Forest Stewardship Council certification. The land remains the property of the state.

Community concessions have developed a number of forest product value chains including timber, xate palm, chicle gum, and allspice, as well as the provision of cultural and ecotourism services. The Rainforest Alliance has published a series of case studies (see Further Reading) that synthesize the extensive monitoring, evaluation, and learning from their efforts. Key findings from these case studies relating to the questions posed by USAID’s Conservation Enterprises Collaborative Learning Group are detailed on the following pages.



Mahogany seed tree marked with an “S” for semilla (seed), to be left unharvested and protected for future stock. Photo by Sergio Izquierdo.

# FINDINGS AND LESSONS

## Question 1: Are enabling conditions in place to support a sustainable enterprise?

As a result of support from many partners, important enabling conditions have been established and maintained, leading to economically viable and sustainable conservation enterprises in the Maya Biosphere Reserve. These enabling conditions include:

- Secure resource tenure over relatively large areas of high-value natural forest
- Legal right to harvest and sell forest products
- Government support and active co-management, including law enforcement
- ‘State of the art’ sustainable forestry practices
- Long-term technical assistance
- Product diversification and value added
- The presence of a strong market and responsible buyers of forest products

But there are significant threats to the model. There is continuing uncertainty related to concession contract extension (most will expire around 2025)

and there is pressure on the government to expand the Mirador-Rio Azul National Park, which would excise large areas of existing concessions. Moreover, there remains a group of four less-developed concessions that have not been as successful in establishing and managing their forest-based enterprises due to internal conflict, centralization of leadership, lower literacy rates, greater dependence on agriculture and livestock livelihoods, and low levels of forest management capacity. These concessions are also smaller in size, with lower value timber resources, and are under intense pressure to convert the land to agriculture use, especially illegal cattle ranches. Two of these four concessions have had their concession contracts cancelled.

## Question 2: Does the enterprise lead to benefits for stakeholders?

While many integrated conservation and development approaches have typically sought to increase people’s incomes to keep them out of state-owned forests, in the Maya Biosphere Reserve the emphasis has been to assist communities to maximize the benefits from sustainable harvesting inside their own forests.

### Key lesson for enabling conditions:

*A high level of participation by well-informed people who collectively hold the concession is essential for institutional strength and legitimacy of the enterprise. Building strong institutional capacity is a long-term commitment by partners supporting the enterprises.*



Grading and scaling at a log landing in the Maya Biosphere Reserve. Photo by Sergio Izquierdo.

### Key lessons for benefits:

- *Especially with enterprises focused on non-timber forest products, diversification and value-added production help to maximize returns and spread these benefits to a greater number of people.*
- *A solid social basis for decision making, transparency, and accountability helps sustain benefits over the long term.*
- *Resisting the pressure to pay out all profits as dividends and instead investing in enterprise development can lead to better returns in a relatively short period of time.*

Benefits from the concessions have included both significant income and non-cash benefits to communities with limited access to basic services and at significant risk of poverty. Cash benefits in one concession studied in detail included about \$35,000 in wages paid out yearly to community members, and dividend payments to each member family amounting to \$650 each year. Significantly, the collection and sale of non-timber forest products has provided more stable employment for both concession members and non-members. Non-cash benefits are of equal importance, and include a range of benefits like health and education services, rural infrastructure, cultural revitalization, a sense of ownership and property rights, community pride, and increased governance capacity.



Assisted regeneration in the Carmelita forest concession. Photo by Sergio Izquierdo.

Generally, a percentage of the enterprise profits are paid out as dividends to each concession member on an annual basis. Many concessions have internal statutes that require investing a portion of net returns in projects that benefit the community. However, these rules are not consistently followed, and some concessions have been reluctant to admit new members.

Ongoing research is gathering additional information on the specific benefits to stakeholders who participate in concessions and enterprises.<sup>1</sup>

### **Question 3: Do the benefits realized by stakeholders lead to positive changes in attitudes and behaviors?**

The combined local benefits from timber and non-timber forest enterprise activity appear to provide the necessary incentives for community members to sustainably manage their forest and protect against forest fires, illegal logging, and illegal colonization. All active community concessions have successfully achieved Forest Stewardship Council certification, which is a precondition of concession contract validity, and practice low impact harvesting according to government-approved management plans.

#### **Key lessons for changes in attitudes and behaviors:**

- *Support for greater diversification into non-timber forest products (lesser-known timber species, xate, chicle, and payment for ecosystem services like carbon sequestration) has the potential to create new income and employment opportunities for non-concession member residents, especially women, without directly disrupting the commercial timber interests of the pioneer concession members. These benefits for non-members in the communities has helped improved compliance with regulations.*
- *In areas with social conflict, even efficiently managed timber concessions may require additional outside support in order to mitigate threats and thwart illicit forest uses.*

<sup>1</sup> A joint study, led by Biodiversity, the Rainforest Alliance and the Association of Petén Forest Communities, is currently systematically assessing a range of economic and governance-related indicators in all nine active community concessions.

As a result, active concessions are widely recognized to be as effective as strict protection in keeping forest intact. Officials seem to have recognized this fact: based on concession performance to date, the government has begun to work with communities to add two new concessions to the Multiple Use Zone – in areas currently designated as biodiversity corridors.

However, the ability of the four weaker concessions to maintain sustainable practices and exclude others from illegal activity is uncertain given that an expanding agricultural frontier intensifies pressure for the conversion of forest to cattle pasture and oil palm. Some critics of the community concession system have pointed to inequities in the distribution of benefits that could potentially fragment the concession organization and disrupt positive conservation behaviors.

#### **Question 4: Do positive changes in stakeholders' behavior lead to a reduction in threats to biodiversity (or restoration)?**

The significant reduction of threats leading to deforestation has been attributed to strong management of most of the concessions. However, weaker internal management of the four resident concessions with recent migrants has led to higher rates of deforestation through expansion of farming and cattle ranching. The rotating leadership dynamic in all concessions has also affected outcomes related to threat reduction. Threat reduction is not attributed to community forestry management alone; joint law enforcement operations between the military, police, protected area authorities, and representatives from community concessions to secure these areas are also critical to threat reduction.

#### **Key lesson for threat reduction and conservation outcomes:**

*Enterprises based on community forestry concessions can reduce threats and conserve forests as well as protected areas, especially when there is a strong commitment to forest stewardship and where communities are given rights over high-value forest resources.*

*Significant political will and sustained investment in technical and financial support is required to build the commitment to a forest stewardship model among stakeholders and reduce threats over the long term.*

#### **Question 5. Does a reduction in threats lead to conservation outcomes?**

Community management within concessions has been effective in reducing deforestation – compared to adjacent areas of strict protection and the buffer zone, deforestation rates are lower. The six non-resident concessions where communities have traditionally been forest-dependent have been the most successful, with minimal deforestation. The requirement to achieve and maintain Forest Stewardship Council certification has allowed for third-party monitoring and continual improvement, leading to what is considered state-of-the-art tropical forest management (Grogan et al. 2015). New evidence also shows that active concessions harbor an abundance of jaguar and other prey species, demonstrating that sustainable forestry can be compatible with the conservation of endangered large mammals (Polisar et al. 2016). However, in the four resident concessions with recent migrants, the deforestation rate has been higher. In these areas, land speculation and the illegal conversion of forest to pasture continue to be a problem.

# LONG-TERM CONSIDERATIONS NECESSARY FOR CONSERVATION ENTERPRISE EFFECTIVENESS

- **Have an explicit theory of change and be willing to refine your assumptions over time as lessons are learned.**

The Rainforest Alliance approaches its technical assistance work with a clear theory of change stating their hypothesis, or “conservation logic,” regarding how supporting the concessions and their enterprise activities will lead to biodiversity conservation in the Maya Biosphere Reserve.

- **Practice monitoring, evaluation, and learning for adaptive management.**

As evidenced in the case studies, the Rainforest Alliance has measured results qualitatively and quantitatively where possible, and questioned assumptions about how their approach would work.

- **Provide and establish strong and consistent local leadership with a culture of learning among partners.**

The Rainforest Alliance understands that achieving conservation outcomes through an enterprise approach takes a long-term commitment, working closely partners and sharing respective findings and lessons as a collaborative team.

# FURTHER READING

USAID has produced a [checklist](#) of enabling conditions for use when planning Conservation Enterprises.

Through support from USAID and others, the Rainforest Alliance has published a series of [10 case studies](#) that assess the outcomes of their conservation efforts. Four of these case studies focus on their support for building the capacity of the community forest concessions within the Maya Biosphere Reserve.

Grogan, James, Christopher Free, Gustavo Pinelo Morales, Andrea Johnson, Rubí Alegria, Benjamin Hodgdon. 2015. [Evaluating the results of our work: Sustaining the Harvest: Assessment of the conservation status of big-leaf mahogany, Spanish cedar, and three lesser-known timber species populations in the forestry concessions of the Maya Biosphere Reserve, Petén, Guatemala](#), Community Forestry Case Studies, No. 5/10, Rainforest Alliance.

Hodgdon, Benjamin D., David Hughell, Victor Hugo Ramos, Roan Balas McNab. 2015. [2000-2013, Deforestation Trends in the Maya Biosphere Reserve, Guatemala](#), Rainforest Alliance.

Hodgdon, Benjamin D. and Arno Loewenthal. 2015. [“Evaluating the results of our work: Expanding Access to Finance For Community Forest Enterprises, A Case Study of Work with Forestry Concessions In the Maya Biosphere Reserve \(Petén, Guatemala\).”](#) Community Forestry Case Studies, No. 10/10, Rainforest Alliance.

Hodgdon, Benjamin D., Oswaldo Morales and Jorge Cruz. 2015. [“Evaluating the results of our work: Meeting the New Global Demand For Lesser-Known Species: Developing Community Forestry Enterprise, A Case Study of Communities in The Maya Biosphere Reserve, \(Petén, Guatemala\).”](#) Community Forestry Case Studies, No. 9/10, Rainforest Alliance.

Polisar J, de Thoisy B, Rumiz DI, Santos FD, McNab RB, Garcia-Anleu R, Ponce-Santizo G, Arispe R, Venegas C. 2016. Using certified timber extraction to benefit jaguar and ecosystem conservation. *Ambio* (5):588-603.

USAID. 2016. [Using a Theory of Change Approach to Synthesize Lessons from USAID Biodiversity Projects](#). Office of Forestry and Biodiversity.

USAID. 2017. [Building a Conservation Enterprise: Keys for Success](#). Office of Forestry and Biodiversity.

*All photos are from the Maya Biosphere Reserve, courtesy of the Rainforest Alliance.*

## **For more information, contact:**

Ben Hodgdon, Rainforest Alliance, [bhodgdon@ra.org](mailto:bhodgdon@ra.org)

Megan Hill, USAID Conservation Enterprise Collaborative Learning Group, [mhill@usaid.gov](mailto:mhill@usaid.gov)