

## Development of Pilot Climate Change Adaptation Programs in Natural Protected Areas in Southeastern Mexico

### Background:

Given the importance of mitigating the effects of climate change on Mexico's ecosystems, as well as reducing greenhouse gases resulting from vegetation loss, Mexico's National Commission for Protected Areas (CONANP) recognized the need for a formal Climate Change Strategy for Protected Areas (ECCAP) <sup>1</sup> that incorporates climate change in the commission's policies and actions, strengthens the institution's capacities, and fulfills commitments set forth in the country's Special Climate Change Program for 2012.

To support the design and implementation of this overarching strategy, CONANP signed an accord with the Mexican Fund for the Conservation of Nature (FMCN) to facilitate cooperative efforts, capacities and resources to carry out actions that will mitigate the effects of climate change; strengthen the protection, conservation and management of federal protected areas; and implement new financing mechanisms. Within this framework, and launching the implementation of the ECCAP, the "Pilot Program for Adaptation to Climate Change in Natural Protected Areas in Southeast Mexico" in collaboration with The Nature Conservancy and funding from Mexico's Environment Ministry; the U.K. government's Department for Environment, Food and Rural Affairs; the Spanish International Cooperation Agency for Development; the U.S. Agency for International Development; The Nature Conservancy; and the U.S. Forest Service.

### General Objective:

Develop a methodology in four protected area complexes in southeast Mexico within a landscape framework that guides and supports the design and execution of adaptive measures to climate change,

aimed at preserving ecosystem functionality, local biodiversity's genetic capacity, and ecosystem services that benefit communities and natural resource users in these areas.

### Description:

Regardless of management category, size or ecological characteristics, Mexico's protected areas are witnessing the impacts of global climate change, even though little information has been obtained at the global level<sup>2</sup>. Protected areas are one of the main strategies to achieve climate change adaptation through preservation of the ecosystems and its "natural infrastructure", as well as mitigation tools against extreme meteorological events<sup>3</sup>.

Climate change adaptation pilot programs must recognize that habitats and the biodiversity found within them will be altered. While it will be impossible to maintain ecosystems intact, putting forth our best efforts now will help ensure that these are resilient to future changes and that protected areas continue to harbor nature's "raw materials" for tomorrow. Therefore, climate change adaptation pilot programs must also be aligned with CONANP's ECCAP, with Mexico's Special Climate Change Program for 2012, and, whenever possible, with State Climate Action Plans.

The development of these pilot programs involves several institutions working directly on climate change adaptation as well as management, monitoring, conservation and restoration activities in each protected area, such as CONANP directors and staff; renowned researchers; federal, state and municipal institutions; civil society groups; and local organizations.

<sup>1</sup> To see the complete document in Spanish go to:  
[http://www.conanp.gob.mx/que\\_hacemos/cambio\\_climatico.php](http://www.conanp.gob.mx/que_hacemos/cambio_climatico.php)

<sup>2</sup> Colette, 2007; Dudley, 2003; Hannah *et al.*, 2007; Mohr, 2007; Peterson *et al.*, 2002; Tellez y Vila, 2003.

<sup>3</sup> Dudley *et al.*, 2010; Stolton *et al.*, 2008.

The selected protected area complexes are: 1) the Biosphere Reserves of Sian Ka'an and Banco Chinchorro; 2) the Biosphere Reserves of Calakmul and the Flora and Fauna Protection Area of Bala'an K'aax; 3) the Biosphere Reserves of El Ocote and El Triunfo; and 4) the Biosphere Reserves of La Encrucijada and La Sepultura.



**Figure 1.** Protected Areas chosen for the Pilot Program according to their complex

### Expected Results:

**Result 1.** Specific procedures in response to climate change will be developed at the institutional level in CONANP's overarching strategy and will be translated into concrete activities in the management of federal protected areas.

**Result 2.** CONANP staff will be trained to identify the vulnerability of protected areas and to develop climate change mitigation and adaptation actions based on regional climate scenarios and the impact of climate change on local ecosystems.

**Result 3.** Pilot project proposals will be developed for climate change mitigation and adaptation in high-priority CONANP regions and to be later replicated elsewhere.

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