

Name	Ecosystem-based Adaptation for Smallholder Subsistence and Coffee Farming Communities in Central America		
Region	Central America	Country	Honduras, Guatemala and Costa Rica
Ecosystem			
Nature of approach	Assessment of the vulnerability of smallholder farmers, Identification of EbA strategies for smallholder farmers, Test of the effectiveness of EbA strategies, Development of targeted training courses and extension materials, Improvement in the capacity of key local and national organizations and institutions that could promote EbA among vulnerable smallholder farmers, Promotion of approaches in national and regional adaptation strategies.		
Description of approach	<p>Objective: To help vulnerable smallholder farmers adapt to climate change by identifying and testing Ecosystem-based Adaptation strategies that can help farmers, and building local capacity to support the implementation of these strategies in smallholder farming communities.</p> <p>Expected outcome: Ecosystem-based Adaptation strategies are in place, implemented by farmers in critically vulnerable communities through the effective use of extension services, and leveraged into national policies in the three target countries.</p> <p>Actions:</p> <p>To understand the vulnerability of Central American ecosystems and smallholder farmers (both subsistence and coffee) to climate change.</p> <p>To identify which smallholder (both subsistence and coffee) farming communities, ecosystems and ecosystem services in the target countries are most vulnerable to climate change.</p> <p>To document household livelihood strategies used to cope with past climatic variability and local knowledge about expected impacts of climate change across a range of different smallholder communities.</p> <p>To test the effectiveness of existing on-farm activities that are relevant for EbA in a subset of communities by collecting detailed information on the characteristics, management, and implementation of those activities, and their performance in the face of climate change.</p> <p>To identify the local and national institutions (both formal and informal) that could promote EbA approaches among vulnerable smallholder farming communities and define strategies for strengthening their role in promoting EbA and smallholder resilience to climate change.</p> <p>To strengthen capacity of key organizations and institutions to support</p>		

implementation of EbA approaches with smallholder farming communities by developing and delivering targeted training courses and extension materials.

To promote the incorporation of EbA approaches in national and regional adaptation strategies and other relevant policies through dissemination of project results to a wide set of stakeholders and decision-makers at national, regional and international levels.

Results achieved:

This project is ongoing but so far (as of June 2014) we have:

- completed a detailed literature review on the state of knowledge about smallholder farmer vulnerability to climate change in Central America and Mexico
- modelled the impacts of climate change on crop suitability, soil moisture, water deficit and crop pollinators
- mapped agricultural landscapes and farmers adaptive capacity in the 3 countries
- developed a detailed survey instrument for documenting how smallholder farming families are being affected by climate change, what adaptation practices they are putting in place to deal with climate impacts, and what the opportunities and constraints are for the use of ecosystem-based approaches
- conducted household surveys in 2 landscapes in Costa Rica and 2 landscapes in Guatemala (household surveys in two landscapes in Honduras are underway)
- conducted a detailed review of existing scientific literature on the agricultural practices which have been documented to help smallholder coffee and subsistence farmers adapt to climate change
- conducted interviews with 128 experts in smallholder coffee and/or basic grains in the Central American region (44 from Costa Rica, 45 from Guatemala and 39 from Honduras) to better understand what agricultural practices they think are most promising as adaptation measures, to identify which adaptation strategies they are promoting, and to understand the constraints to greater adoption of adaptation measures (particularly EbA)
- developed detailed methods for the field work for documenting the characteristics, implementation and management of EbA practices in the field, capturing farmer's perceptions of the effectiveness of these practices, and documenting the delivery of ecosystem services from EbA practices
- Carried out dissemination about the project with over 200 individuals from different key institutions in the region.
- Delivered key talks in high level political and technical fora for a about the project and EbA
- Carried out 1 workshop to share results and discuss farmers' vulnerability with policy and technical decision makers in Honduras.

Type of organisation	NGO, Research Institution	Name of organisation	Conservation International (CI) & Tropical Agriculture Research and Higher Education Center (CATIE)
Further information and contact details	<p>Further information: www.conservation.org/cascade</p> <p>Contact details:</p> <p>Project Coordinators: Ruth Martinez Project Manager for CI rmartinez@conservation.org 2011 Crystal Drive Suite 500 Arlington, VA 22202 USA +506 2558-2610</p> <p>Milagro Saborío-Rodríguez Project Manager for CATIE msaborio@catie.ac.cr CATIE Campus Turrialba, 30501 Costa Rica +506-2558-2623</p> <p>Project Leads: Celia Harvey Project Director for CI charvey@conservation.org</p> <p>Francisco Alpízar Project Director for CATIE falpizar@catie.ac.cr</p>		