# Community-Based Adaptation
## FAST FACTS

**Grantee: Organización Desarrollo Integral Chocabense** (ODICH)
**Type of organization**: CBO
**Number of participants**: 175 indigenous people of Maya-Mam (83 Men; 92 Women)
**Location**: Chocabj community (Aldea village) in the Sibinal Municipality of the San Marcos Department, Guatemala
**CBA Contribution**: $18,137.36 USD
**Project Partners**: None
**Co-financing**: $16,607.24
**Project Dates:** March 2011 – December 2012

## *GUATEMALA*

## Adapting to Climate Change through the application of green forest borders

### BACKGROUND

The Community-Based Adaptation Programme (CBA) is a five-year UNDP global initiative, largely funded by the Global Environment Facility (GEF) along with other donors. Delivering through the GEF-Small Grants Programme (SGP) and UNDP Country Office, the goal of the Project is to strengthen the resiliency of communities addressing climate change impacts. UNDP partners with the United Nations Volunteers (UNV) programme to enhance community mobilization, recognize volunteers' contributions and ensure inclusive participation around the project, as well as to facilitate capacity building of partner non-governmental organizations (NGOs) and community-based organizations (CBOs). Testing the Vulnerability Assessment Reduction (VRA) and other community-engagement tools, the Project is generating invaluable knowledge and lessons for replication and upscaling. The Government of Jap an, the Government of Switzerland, and AusAID provide additional funding.

The CBA project "*Adapting to Climate Change through the application of green forest borders*" is located in the Sibinal Municipality, in the highlands of the San Marcos Department in northwest Guatemala. Located between the two highest volcanoes of Guatemala (Tajumulco volcano and Tacaná volcano), the area's annual rainfall of 2000-2500 millimeters have proven productive for the agriculture, forests and ecosytems. With weather pattern fluctuations brought on by climate change, rainfall in the project site has decreased and has become erratic. Either there is no rain, or when it does rain, it occurs in the form of severe hurricanes and torrential storms. These lead to soil erosion, landslides, mudslides, floods and obliteration of crops and endemic species, which threaten the existence of the Chocabj community who highly depend on agriculture (beans, corn, potatoes and wheat) as the primary source of their livelihood. Additionally, the increasing temperatures in the summer seasons brought on by climate change lead to droughts and heat waves that further destroy the agriculture and the ecosystem due to soil degradation and infertility, and water scarcity. With these climate change impacts, the population is at risk as their agricultural production and ecosytems are continually threatened, leading to poverty, increased health risks and migration to other areas such as Mexico. In this regard, the community needs help on sustainable natural resource management to enable them adapt to climate change adverse impacts.

*Lack of awareness in sustainable soil conservation leave harvested crops surrounded by weeds and wasteleading to the poor quality of crops, pest manifestaion and forest fires.*

### CLIMATE CHANGE RISKS

The First National Communication on Climate Change of the Ministry of Environment and Natural Resources forecast the continuity of the increasing warming trend in Guatemala. The increasing temperatures during the summer season (November-April) lead to the extended range of the hottest months (December-January). On the other hand, there will be less rainfall and more aridity during the rainy season (May –October), especially during the months of June-August due to the observed changes in atmospheric circulation in the Pacific-North America zone. Additionally, the weather events (hurricanes, torrential storms and cold fronts) associated with the El Nino phenomenon will be magnified.

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## PROJECT DESCRIPTION AND ADAPTATION SOLUTIONS

The CBA project aims to strengthen the communities' resiliency to climate change through awareness-raising workshops and capacity-building activities on natural resource management. Using a participatory approach, the project is implemented by the **Organización Desarrollo Integral Chocabense** (ODICH), the project partner NGO. The project increases the adaptive capacity of local communities through the following activities:

*Community members apply the terracing technique for soil conservation purposes.*

- To protect agricultural yields and conserve soil from torrential rains, the establishment of canals, hedgerows and stone barriers on 2.4 hectares and the application of terracing techniques on another 1.2 hectares of land prevent soil erosion.

- To prevent landlsides and mudslides brought on by hurricanes and torrential storms, native species (Pinus rudis (red pine) Pinus ayachahuite (white pine), Alnus ssp. (Alder) andChiratodendrum pentadactylla (canaque)) are rehabilitized, conserved and used for reforestation.

- To protect watersheds and other water resources from flooding , as well as provide energy reserves, 10,000 trees are planted for the reforestation on 10 hectares of land. These also protect agriculture from floods and the pest occurences that come from flooding.

- To combat soil infertility brought on by severe storms in the rainy season and high temperatures in the summer seaons, 26 structures are built for organic composting used for soil fertilization.

- To enhance the knowledge of the community members on sustainable resource management, awareness-raising and capacity building workshops are provided. Additionally, training sessions on organizational, administrative and financial management provide the community members with operational resource tools.

The adaptive solutions provided by this project generates environmental benefits as well as socio-economic benefits to the community members. Soil conservation activities increase agricultural yields and livestock feed, which provide income-generating benefits as well as food security. Social inclusion and gender mainstreaming approaches ensure all community members have a voice and a role in the project, regardless of age, gender and physical/mental abilities.

## FOCUS ON…

**Global environmental benefit**

The project's reforestation practices enrich and secure energy forests. Thus, the carbon sequestration promotes global environmental benefits.

**Community participation and sustainability**

All community members were involved in the project development and implementation. Volunteerism within the community is a strong focus with all members having roles in the project and being accountable for the activities. This approach ensures that the community members are sustainable when the CBA project ends.

**Policy Influence**

Best practices are aimed to be integrated into local and national policies.

***For more information about CBA or CBA projects visit: www.undp-adaptation.org/project/cba***

*Further information, lessons learned, and experiences gathered from climate change adaptation activities globally are available at the Adaptation Learning Mechanism: www.adaptationlearning.net*

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