According to Mayan Q´eqchi´ worldview, the forest represents the oldest production system and is a legacy of the ancestor.

Photo: Fundación Defensores de la Naturaleza

Fact sheet

Q'eqchi' best practices and livelihoods in the wetlands of El Estor, Izabal, Guatemala

with emphasis on reducing disaster risks, climate change adaptation, ecosystem restoration and management.

The Q'eqchi' communities of El Estor, Izabal, Guatemala, are vulnerable to climate variability and different hydro-climatic threats. As part of the Partners for Resilience country programme, the Guatemalan Red Cross and Wetlands International prepared a study on wetland-related best practices and livelihoods of the Maya Q'eqchi' people. The study systematizes their traditional and local knowledge. This knowledge allows their communities to take actions for climate change adaptation, disaster risk reduction, and ecosystem restoration and management, taking these wetland-related livelihoods as starting point.

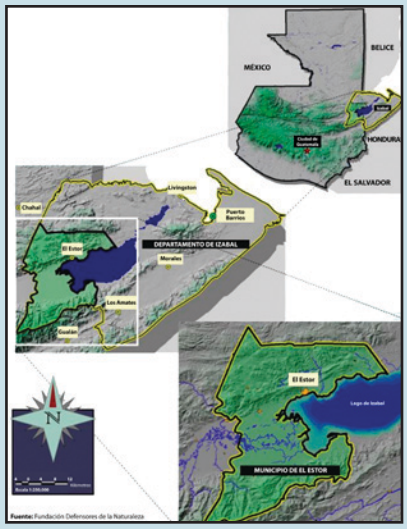
Introduction

The Worldview (or Cosmovision) plays an important role in the lives of the Q'eqchi' communities in El Estor, Izabal. The forest represents the oldest production system and is their ancestor's legacy; their agriculture reflects an integrated vision that seeks to meet basic needs and provide general welfare.

However, nowadays this traditional knowledge that is important for adapting to a changing climate is not being passed on by many people, or taken up by the youth.

The Q'eqchi' wetland communities of El Estor

Nine communities were selected for this study, based on the following criteria: belonging to the Maya Q'eqchi', their connection with the wetland areas, institutional presence, organizational level and accessibility (by river and road) enabling the work.



The characteristics of El Estor municipality, Izabal

- Approximate area: 2,896 km^2.
- Population in 2010: 65,990 inhabitants.
- Population density: 22 inhabitants/km^2.
- High rural index (67%).
- 154 organized communities in seven micro regions represented by Community Development Councils (COCODE).
- Hot weather, with temperatures ranging from 20 to 30°C.

The wetlands of El Estor

- There are 29 rivers, a part of Lake Izabal and outer border of Wildlife Refuge Bocas del Polochic wetlands system (including lagoons, swamps and flood forests).
- There are only small remainders of these wetlands in the area; most have been transformed by large-scale industries (oil palm, sugarcane and open-pit mining, etc.) which have caused the relocation of communities, conflicts over access to land and negative impacts on the wetlands´ ecological health, among other problems.

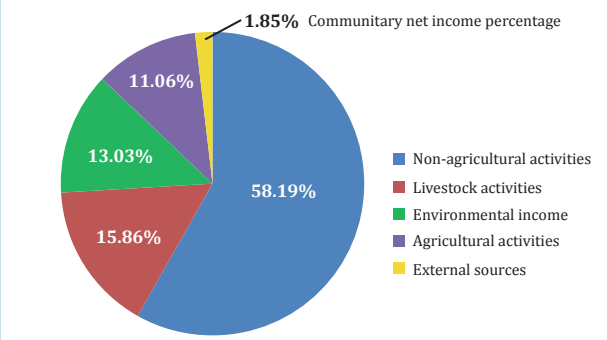
The communities chosen were:

- One **urban community**: the municipality´s main town of El Estor.
- Eight **rural communities**: Setolox, Pombaaq, Polígono, Rancho Grande, Selempín, Guaritas, Chapín Abajo and La Ensenada. Most of these communities are new settlers and have been uprooted from their cultural landscape and ancestral lands.

El Estor contains several wetlands, including rivers, lagoons, swamps and flooded forests.

Photo: Comité de Autogestión de Turismo (CAT), El Estor.

Community livelihoods in the wetlands of El Estor (year 2013)



- Unskilled wage labour, mainly at African oil palm tree plantations, generates 38.97% of the **non-agricultural** income.
- Raising small animals is the largest of the **livestock activities**, with the sale of pigs representing 6.82%, of chicken/hen 3.16% and livestock 4%.
- The **environmental income** represents 13.03% of total income with fisheries providing the largest contribution.
- Although **agricultural activities** generate few or no economic gains, ancestral sowing practices are still carried out and preserved.

The hydro-climatic hazards to wetland-related livelihoods as identified by the communities are: prolonged drought, floods, heavy rain and winds, with consequences such as the loss of crops, pests and low agricultural production.

The **impacts of climate variability** as identified by the community are: a) loss of agricultural productivity, b) landscape transformation (especially after Hurricane Mitch), c) Deforestation related to the advancing agricultural frontier, d) Changes in water temperature of rivers and lakes, e) more frequent cold waves which decrease fisheries' catches, e) Health impacts (an increase in diseases).

The community upholds ancestral best farming practices, allowing them to adapt to climate change.
Photo: Fundación Defensores de la Naturaleza

Community´s best practices for adapting to climate change

There are both traditional and adopted practices in communities that are not necessarily linked to the Q'eqchi' worldview, but do have allowed them to adapt to climate change. Some of them are:

Q'eqchi' traditional practice	Practice adopted (by external influence)
Participation of women	
Women have assumed different roles (agricultural activities, small businesses, among others).	
Agricultural area	
Rotation of crops, diversification of plots, cultivation of native species with high nutritional value in backyards, soil conservation (living barriers, intercropping), barn storage of corn during floods, and use of natural indicators for predicting weather and their application in agriculture (moon cycles, biodiversity, traditional weather predictions or *cabañuelas*, etc.).	Drainage works on the plots, identification of natural signals about possible bad weather (so that some producers do not plant the entire crop, only for self-consumption), development of manual edges for plots protection.
Forestry	
The allocation of a plot for forest conservation.	Reforestation with native species to prevent erosion and availability of firewood.
Water usage	
Forest conservation for the protection of water sources.	Artesian wells for drinking water.
Community organization	
All communities have a Drinking Water Committee.	Setting up the Polochic Creek Farmers Committee: the training, instructing and equipping of a Local Disaster Reduction Coordinator; existing fisheries and community tourism organizations

However, unsuitable practices were also identified, such as the:

- Use of genetically modified seeds for growing corn.
- Use of large quantities of pesticides and fertilizers, substituting the traditional practices of manual clearing of weeds and organic fertilizers.
- Use of prohibited fishing gear (trawls).

Main recommendations for key local stakeholders

- Apply intervention models for community support in El Estor based on the Q'eqchi' culture and best practices in development programs and projects.
- Design food security programs with emphasis on the rescue of the values of traditional agriculture, as well as sustainable fisheries.
- Promote programs that strengthen livelihoods, with an emphasis on traditional adapted agriculture and crop diversification, promoting the recovery of best practices based on the Q'eqchi' worldview principles seeking the common well-being of people and nature.
- Promote initiatives for the rescue of native seeds and create a seed bank for the conservation, production and use, thereby preventing the dependency of wetland-dwelling families on hybrid seeds combined with an increased use of fertilizers and pesticides.
- Promote strategies to validate local knowledge about natural indicators for predicting the weather, which should also be considered in the construction of early warning systems.

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