The Economics of Ecosystems and Biodiversity for Agriculture and Food (TEEBAgriFood) aims at equipping decision-makers with the tools and information to recognise the value that Ecosystem services provide to food systems.

TEEBAGRIFOOD

MEXICO

TEEBAgriFood Initiative for maize-milpa in Mexico

Context

Domesticated from a wild grass by the Maya and Aztec people thousands of years ago, maize has been the main staple food of Mexicans for millennia. Because of its history, maize plays a central role in Mexico's cultural and gastronomic identity. Traditionally, rural Mexican families cultivate a milpa, a typically rain-fed intercrop garden patch centered around maize, produced for household consumption and domestic animals. From these traditional small-scale intercrop milpa systems to industrial-scale irrigated monoculture systems, maize is the backbone of the Mexican food system. Maize supports food security for millions of rural, low-income farmers. Maize is also important for animal feed and agroindustry, feeding Mexico's tens of millions of cattle, pigs, and chickens. TEEBAgriFood Mexico explores this range of maize production systems, their benefits and costs to nature and Mexican families.

Focus

TEEB AgriFood seeks to contribute to the development of productive, social and environmental policy around the maize and milpa production system in Mexico, making projections of the behavior of the maize sector in the medium and long term, in the context of climate change, as well as the execution and analysis of public policy scenarios. To do this, the commercial and self-consumption production systems will be studied, analyzing the visible and invisible flows, as well as the positive and negative impacts, on the human, social, natural and produced capitals, throughout the maize value chain.
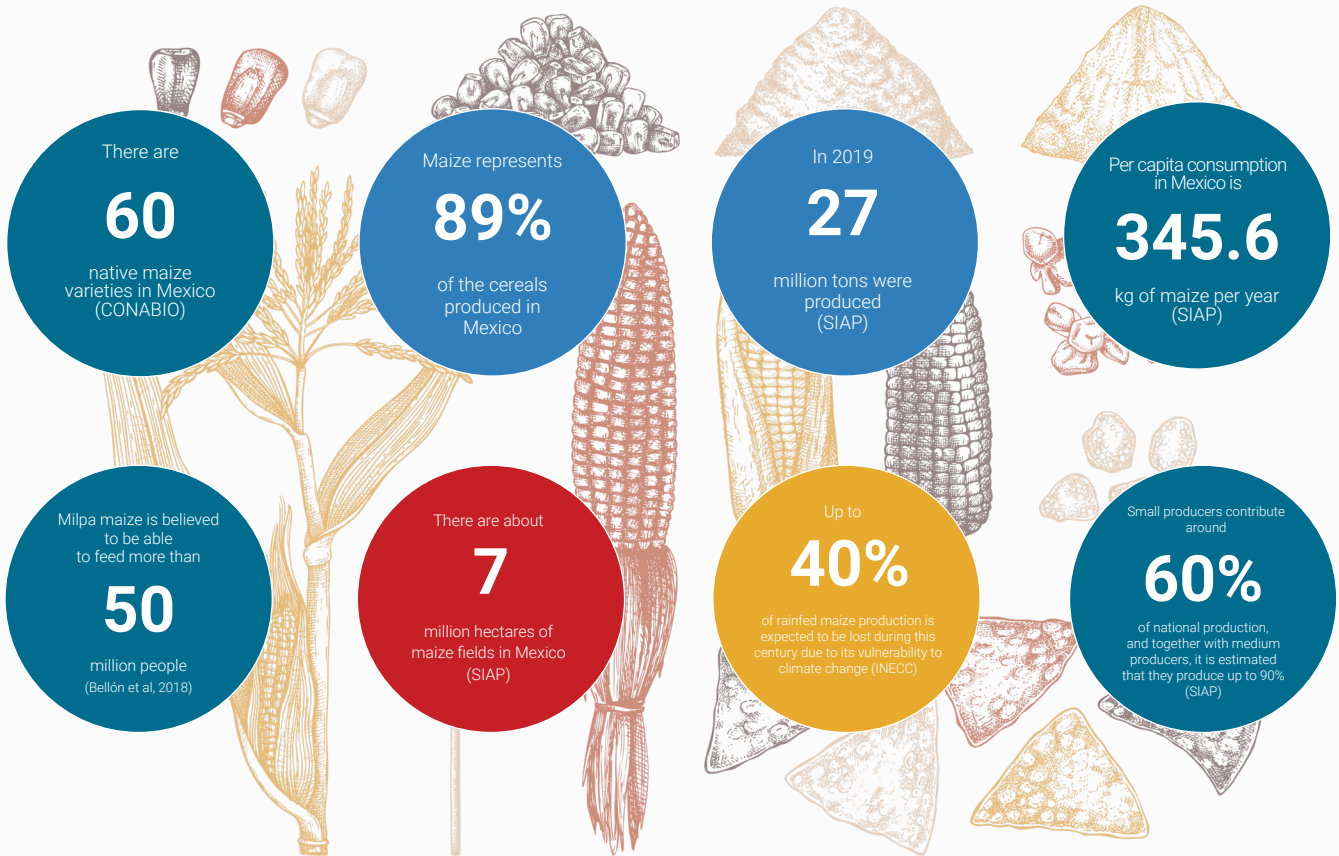
Location

TEEBAgriFood Mexico seeks to model the maize value chain throughout Mexico. In the case of the milpa, being such a diverse production system, the milpa in the state of Yucatan will be studied.

Picture by: International Maize and Wheat Improvement Center
"Mexican native maize populations"

- Facts & Figures -

There are **60** native maize varieties in Mexico (CONABIO)

Maize represents **89%** of the cereals produced in Mexico

In 2019 **27** million tons were produced (SIAP)

Per capita consumption in Mexico is **345.6** kg of maize per year (SIAP)

Milpa maize is believed to be able to feed more than **50** million people (Bellón et al, 2018)

There are about **7** million hectares of maize fields in Mexico (SIAP)

Up to **40%** of rainfed maize production is expected to be lost during this century due to its vulnerability to climate change (INECC)

Small producers contribute around **60%** of national production, and together with medium producers, it is estimated that they produce up to 90% (SIAP)

Method & Objectives

The initiative seeks to contribute to the development of environmental and social policy around the maize sector in Mexico through a business-as-usual projection of the medium- and long-term behavior of the maize sectors (commercial and self-consumption).

The research will take into consideration the context of climate change, as well as the implementation of public policy scenarios.

Picture by: International Maize and Wheat Improvement Center
"Maize farmers in Yucatan, Mexico"

Project Duration: **February 2017 – December 2022**

Research Institution:

Universidad Iberoamericana

UNEP Contact:

Jacob Salcone
TEEB AgriFood Mexico Initiative Coordinator
for UNEP Mexico
jacob.salcone@un.org

Research Consortium Contact:

Alan Hernández Solano
Research Consortium Leader
for TEEB AgriFood Maize-Milpa,
Universidad Iberoamericana
alan.hernandez@ibero.org