

Guatemala



Project title

Establishment of a preliminary network of community seed banks in vulnerable regions of Guatemala to provide seed in the event of a natural disaster

Overall objective: Contribute to the development of measures for adaptation in the face of climate change and build food security through the establishment of community seed banks

Crops addressed: Maize (*Zea*) and beans (*Phaseolus*)

Main activities

- Documentation and conservation of genetic diversity of maize and beans
- Establishment of community seed banks
- Training and capacity building
- Elaboration of a manual on seed conservation and management in community seed banks
- Promote complementarities between *in situ* and *ex situ* conservation of agricultural biodiversity
- Build synergies between Universities, the National Institute for Agricultural Research (INIA), non-governmental organizations (NGOs), farmer groups and international organizations.

Implementing institution

Universidad del Valle de Guatemala

Related website

www.uvg.edu.gt



GUATEMALA IS AMONG THE WORLD'S TOP 10 countries in terms of vulnerability to natural disasters. Models predict that small-scale farmers, particularly those engaged in rain-fed agricultural practices, will be the most affected. Therefore, the adoption of adaptation and mitigation strategies is vital for guaranteeing the livelihoods of local communities.

Activities to safeguard genetic diversity in Guatemala and guarantee material for base broadening activities are being carried out by conserving local biodiversity in seed banks.

This BSF project will promote *in situ* and *ex situ* conservation of agricultural biodiversity and build synergies between Universities, the National Institute for Agricultural Research, NGOs, women's associations, farmers groups and international organizations.

Household surveys have been undertaken to assess: farmers' storage practices, levels of seeds availability and sowing practices, and to document their climate change perceptions and related coping strategies.

Genetic diversity in farmer's fields has been documented, resulting in the collection, evaluation and characterization of samples of maize and beans. Our partners are documenting the existing genetic diversity of maize and beans in the project sites using the *in situ* conservation index (ICi) that has resulted in 44 samples of maize and beans analyzed against 10 qualitative and quantitative traits. Identified data on native genetic diversity has been entered in databases. The Instituto de Ciencia y Tecnología Agrícolas (ICTA) scientists are breeding seeds in order to preserve the genetic diversity present in farmers' fields and to make available genetic material for community seed banks. In addition, a Seed Bank Committee has been established.

Through this BSF project, 150 farmers and their families will benefit directly from capacity building activities and technology transfer for the management of maize and bean varieties in their fields. This will also help to further disseminate knowledge and good practices among their communities. Over 1,355 families representing 8 communities are estimated to benefit from the availability of seeds that are resistant to drought and present preferable gastronomic and economic traits.

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