

Costa Rica

Project title

Participatory and science-based Strategic Action Plan to strengthen the conservation of plant genetic resources and their enhanced use in adapting to climate change in Mesoamerica.

Overall objective: Sustain regional food security and livelihoods under changing climatic conditions based on improved conservation, use of and access to Mesoamerican PGRFA and ultimately contribute to the adaptation of agricultural systems to changing climates in other regions.

Crops addressed: Maize (*Zea*), bean (*Phaseolus*), cassava (*Manihot esculenta*), sweet potato (*Ipomea*), squash (*Cucurbita*) amaranth (*Amaranth*), pepper (*Capsicum*), papaya (*Carica papaya*), avocado (*Persea*)

Main activities

- Monitoring local climate change
- Enhancement of *in situ* and *ex situ* PGRFA conservation strategies
- Identification of material with adaptive traits and enhancement of pre-breeding
- Integration of PGRFA in food security and post-disaster response strategies
- Training and capacity building

Implementing institution

Bioversity International

Related website

www.bioversityinternational.org



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THIS PROJECT HAS BEEN DESIGNED AS A roadmap for strengthening the conservation and use of Mesoamerican native plant genetic resources as a strategic element for climate change adaptation. It combines analysis of scientific evidence (diagnosis of the status of PGRFA in the region) and broad consultation directly involving 70 experts and more than 200 stakeholders, including representatives from national governments, regional government bodies, academia, regional and international agricultural organizations, civil society and donors. The conservation and use of crop genetic diversity is crucial for the countries of this Region as they are facing major challenges for food security, including loss of unique and irreplaceable crop biodiversity.

Project activities focus on 10 of the most important Mesoamerican crops for local and global food security with potential to generate income. A diagnosis on the status of conservation (*ex situ* and *in situ*), use, and relevant policies related to gene pools of *Zea*, *Phaseolus*, *Manihot*, *Ipomoea*, *Cucurbita*, *Amaranthus*, *Capsicum*, *Carica*, *Persea* and *Tripsacum* had already been formulated. *Ex situ* and *in situ* analysis has included 384 species (26 cultivated and 358 wild).

This project's framework will benefit farming communities by increasing their capacity to adapt to climate changes, diversify agricultural systems and dietary patterns through increased use of PGRFA diversity, and also substantially increase the capacity of decision makers in Mesoamerican countries to respond to food security challenges. The results and underlying principles of this SAP will be integrated in national policies and programs of the target countries in keeping with the commitment of the Council of Ministers of Agriculture of the Agricultural Council of Central America (CAC) in August 2013, which announced the unanimous support for this SAP, and recognized its notable contribution in providing Mesoamerican countries with access to the genetic resources needed to face the challenges of changing climate.

