

# GUATEMALA/FAO



GREEN  
CLIMATE  
FUND

GLOBAL  
PROGRAMMING  
CONFERENCE

## Project title RELIVE – Resilient Livelihoods of vulnerable smallholder farmers in the Mayan landscapes and the Dry Corridor of Guatemala

### Result areas

Most vulnerable people, communities and regions  
Health and well-being, and food and water security  
Ecosystem and ecosystem services

### Sector

Public

### Total financing, USD

70.135 million

### GCF financing, USD

33.295 million

### Financial instrument

Grant

### Description of specific climate change problem and how the project will address it

Guatemala is the second most vulnerable country to climate change in Latin America and the 11th worldwide. Historically, Guatemala is a country with low water stress, however currently 45% of the country experiences a medium to high susceptibility to drought due to decrease in rainfall and prolonged days with extreme high temperature. Average annual temperature shows increase of 0,6°C since 1960 with the number of hot days increased by 2.5% per decade since 1960. The number of consecutive dry days has increased, and the dry period is warmer. In the last 20 years, the occurrence and intensity of extreme events has increased, especially for droughts, extreme temperatures and floods. The drought in 2014 caused the yield loss of 80% maize and 63% beans, which led to an economic loss of USD 61 million for the country. The drought affected 40% (12,090 ha) of the project area causing partial or total crop losses of 58,636 subsistence families, resulting in USD 11.6 millions of economic impact. The high temperatures and rainfall variation in September in 2012, led to a severe outbreak of coffee rust led to the loss of 15% of coffee production. Climate projections consistently indicate future reductions in precipitation during both the dry and wet seasons, thus affecting livelihoods especially those dependent on agriculture and increase in average annual temperature between 2.5 °C and 4.1 °C by 2050, and between 3.3 and 5.4 °C for the decade of 2070. Most of the population in prioritized territories are inhabited by indigenous people groups living in high poverty conditions. For example, in Alta Verapaz 90% of the population is indigenous and in some municipalities up to 96% of the inhabitants are indigenous. Poverty rates in some of the prioritized municipalities reach up to 94% (of which up to 76% are under extreme poverty conditions). The beneficiaries of the proposed project are infra-subsistence, subsistence and surplus family farmers living in regions areas highly exposed to aridity due to climate-induced droughts and heat waves. A major factor affecting their adaptive capacity is their strong reliance on rain-fed agriculture, poor quality seeds and unsustainable agricultural practices. The project aims to improve the resilience of vulnerable family farmers to climate change through an integrated landscape approach, including: the promotion of on-farm measures for increasing the resilience of agricultural production systems (which form the principal bases of livelihood support systems); the implementation of efficient water management to reduce the impact of increase water scarcity; the maintenance of flows of environmental services of importance for livelihoods and agriculture, through improvements to production systems on-farm and the restoration and conservation of degraded ecosystems off-farm.

### Alignment with key country priorities and stakeholders engaged

The project is aligned with: 1) Guatemala's NDC commitments which include the following prioritized areas: human health, agriculture, livestock, and food security – with priority given to those actions dedicated to food production for self-consumption and subsistence, forestry, conservation and management of strategic ecosystems, integrated approach to water resources, and a risk-reduction integrated approach, 2) the forest Policy, and 3) The Law for promoting the National Forest Incentive Program (PROBOSQUE), and Law for promoting forest and agro-forest Incentives for small-holder owners (PINPEP). These laws ensure the continuation of the Forest Incentive Program (PINFOR, 1997 - 2016) no longer in force, which has been the most successful instrument at the national level for promoting reforestation and forest landscape restoration actions. Even though these incentives have succeeded in these objectives, they have not reached vulnerable small -holder farmers. This type of producers cannot meet the requirements established by INAB, even though National Forest Service authorities have shown great interest in including them as beneficiaries of the program (especially those working with agroforestry systems). Project activities will assure that funds from this Government Program reach a group that otherwise would not be included as beneficiaries. The project is also aligned with and will learn from the NAP-Agriculture - Integration of Agriculture into the National Adaptation Plan. The project has been formulated from the beginning in close consultation with and involvement of relevant government agencies, beneficiaries in farming communities and other stakeholder, in order to maximize buy-in and long-term ownership. The proposed activities have been identified through a participatory approach engaging both women and men and based on community priorities. FAO consulted with the indigenous communities in the project area to ensure that the GCF supports concrete actions for the indigenous peoples in a way that protects their rights and respects their social and cultural identity, including customs, traditions and institutions

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## Main Activities

Activity 1.1.1 Install 20 hydro-meteorological monitoring equipment for drought to inform climate resilient agricultural management strategies  
Activity 1.1.2 Disseminate climate information and response adaptation measures using locally-relevant delivery mechanisms  
Activity 1.2.1 Implement adaptation practices and gender-sensitive technology packages for staple crops, coffee and cocoa in 5,800 family farms  
Activity 1.2.2 Implement at least 10 trainings to enhance the technical capacity and knowledge of 5,850 farmers for climate-risk informed planning and implementation of agricultural adaptation measures at farm level  
Activity 1.3.1 Promote diversification of productive units in home gardens for 3,300 farm families and install 370 greenhouses micro-tunnel facilities for vegetables and poultry  
Activity 2.1.1 Establish or strengthen the capacity of 14 Local Water Committees for climate risk-informed integrated water resource management  
Activity 2.1.2 Develop and implement 14 climate risk-informed water management plans at micro-basin level  
Activity 2.2.1 Technical support to 18,850 smallholder farmers (women in particular) to access forest incentives  
Activity 2.2.2 Restore 13,000 ha through climate resilient management of forest ecosystems and agroforestry  
Activity 3.1.1 Provide training of 100 technicians from 28 municipal environmental units and other local governance agencies on climate change and climate resilient agriculture  
Activity 3.1.2 Create 2 water management and climate change thematic roundtables for inter-institutional coordination at multiple levels, on climate adaptation and water resources management and facilitate meetings  
Activity 3.2.1 Train 1300 community promoters on the use of climate information and planning for agriculture adaptation strategies and strengthen the capacity of 80 CADERs

## Expected outcomes

- Outcome 1. Critical production systems are climate resilient and farmers have enhanced, food-secured and adapted livelihoods;
- Outcome 2. Water resources at micro-basin level are sustainably managed and landscapes are restored to ensure stable supply of water for farming amidst drought conditions;
- Outcome 3. Local and national institutions adopt governance mechanisms and have strong capacities to implement climate change adaptation measures.

## Paradigm shift potential

The proposed GCF project will lead to a paradigm shift away from the business-as-usual agricultural system highly sensitive to climate change and characterized by unsustainable land use practices and focused on crop productivity. The project will overcome information, technical, financial, social and institutional barriers that prevent a transition from conventional practices by delivering a package of proven and validated measures that improve the resilience of local production systems, increase the efficiency of agricultural water management at the basin and farm level, and improve inter-institutional coordination and local governance capacity. The project is also transformative in its focus on promoting women's equitable representation in project activities and enabling women's greater economic empowerment and participation in decision making.