



Food and Agriculture Organization
of the United Nations

Disaster Risk Programme to strengthen resilience in the Dry Corridor in Central America



El Salvador-Guatemala
Honduras-Nicaragua
2015–2018

CONTEXT

Central America is one of the regions most vulnerable to disaster risks due to its geographical location, high climate variability, exposure to extreme hazards and the institutional and socio-economic weaknesses of its population. Agriculture and food and nutrition security face multiple threats that can cause damage and disrupt regular weather conditions.

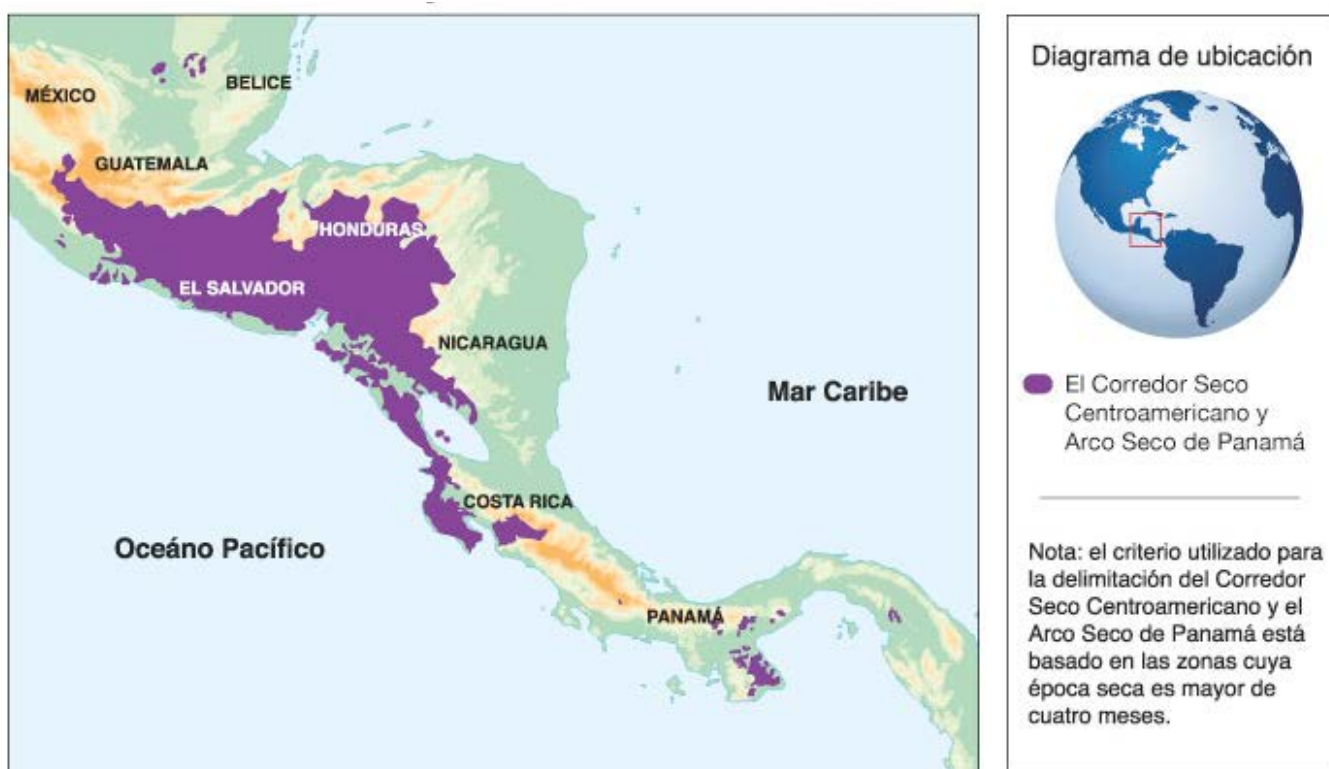
One of the areas most affected by extreme hazards, in particular natural hazards, is the Dry Corridor. The term Dry Corridor, although referred to a climatic phenomenon, has an ecological basis and defines a group of ecosystems in the eco-region of dry tropical forests in Central America covering the lowlands of the Pacific coastal area, and most of central pre-mountain region of El Salvador, Guatemala, Honduras, Nicaragua, Guanacaste in Costa Rica and Panama's *Arco Seco* area.

Climate risks in the Dry Corridor are mainly represented by recurrent droughts, excessive rains and severe flooding affecting agricultural production, with greater intensity in degraded areas.

It is estimated that in Central America's Dry Corridor more than 1 million families rely on subsistence farming. The levels of poverty and malnutrition are alarming and mainly affect rural populations and indigenous communities. Most livelihoods depend on climate whereas the percentage of producers of basic grains varies from 54 percent in El Salvador and Honduras to 67 percent in Guatemala.

The Food and Agriculture Organization of the United Nations (FAO) – in collaboration with its partners and counterparts – is supporting the countries of the Dry Corridor in Central America to increase the resilience of households, communities and institutions to prevent and address disaster risks that affect agriculture and food and nutrition security in a timely and efficient manner.

Location of the Dry Corridor in Central America and *Arco Seco* in Panama



Source: based on the *Atlas centroamericano para la gestión sostenible del territorio*

DISASTER RISK IN THE DRY CORRIDOR

Risk is defined as the combination of the probability that an adverse event (or threat) occurs and its negative consequences.

According to the INFORM 2015 index that quantifies the risk of crisis or humanitarian disaster through three aspects – threat, vulnerability and responsiveness – El Salvador, Honduras and Nicaragua show high risk levels while Guatemala a very high risk. The four countries are classified among the top 87 (of 191) countries most exposed to risks at a global scale.

Risk classification (FAO)

Risks	Threats	Main effects on food and nutrition security	Vulnerability in Central America
Natural hazard	Excess of rain, erosion, floods, storms, landslides, drought, earthquakes, volcano eruptions and fires.	Reduced availability of food, affecting access and use of food, due to impacts on income and basic goods.	Geographical location subject to extreme climatic events. Regulatory, institutional, and policy environment is not favourable towards disaster risk reduction (prevention, mitigation and preparedness actions).
Economic	Food price fluctuations and speculation, financial instability and political instability.	Could affect the availability, access and use of food in a certain regions if the economic impacts are severe and in the long term.	High percentage of the population living in poverty and food insecurity. Livelihoods heavily dependent on agriculture and climate. Unequal access to and use of resources.
Food chain (animal health, plant, etc.)	Epidemic plant pests and animal disease propagation and food contamination.	Reduced availability of food, affecting access and use of food, due to impacts on income and basic goods.	Inefficient management of soil and water, unsustainable agricultural practices, ecosystem degradation and pollution.

Three of five harvest cycles are lost and rarely sufficient to meet the food and nutrition requirements of households.

The Dry Corridor has become a priority for the development of Central American countries, mainly due to the vulnerability of livelihoods in areas of staple grain production.

In the Dry Corridor, small-scale producers and rural communities are highly vulnerable to drought given reduced sources of drinking water. As a result, drought becomes a major socioeconomic phenomenon due to its impact on the livelihoods of poor rural populations.

The issue focuses on low agricultural productivity. Small-scale farmers grow maize and beans on hillsides, have access to 0.35 ha of land on average and establish associated systems of two or more crops, mainly maize-beans or maize-gama grass (sorghum). They use few purchased inputs and undertake traditional crop management practices. Every year, they face the risk of depleting their food stocks. This risk has intensified due to low rainfall affecting families, reducing their diet diversity and energy intake, increasing cases of malnutrition in children under five years. Drought significantly affects agriculture by decreasing production, threatening food supply, preventing the commercialization of production, limiting incomes and increasing the vulnerability of households.



Credit: ©FAO

FAO SUPPORT TO INCREASE THE RESILIENCE OF LIVELIHOODS IN THE DRY CORRIDOR

Since 2009, FAO has been promoting risk management increasing rural resilience in Central America. In 2011, an FAO Regional Disaster Risk Management Strategy in Latin America and the Caribbean (2011-2013) was formulated. At the subregional level, a Regional Strategic Framework for Climate Risk Management in the agricultural sector of Central America's Dry Corridor was developed in 2012, and a Resilience Agenda was adopted with the World Food Programme, the Central American Agricultural Council, the Central American Commission on Environment and Development, the Coordination Centre for the Prevention of Natural Disasters in Central America, the Regional Committee on Hydraulic Resources and the Inter-American Development Bank.

Strategic Objective 5:
Increase the resilience of livelihoods to threats and crises

In 2013, FAO revised its Strategic Framework establishing five corporate strategic objectives. The fifth objective is based on the corporate Framework Programme for Disaster Risk Reduction (Resilient Livelihoods) and aims to increase livelihood resilience from threats and crises



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FAO's work focuses on creating, protecting and restoring sustainable livelihoods in order for societies dependent on agriculture, livestock, fisheries and aquaculture, forests and other natural resources, not to be threatened by crises. FAO works through a twin-track approach: on the one hand, immediate initiatives are undertaken to protect agriculture, food and nutrition; and on the other hand, longer-term underlying factors, determining risks, disasters and crisis, are addressed.

Country Programme Frameworks include disaster risk management and resilience

The Country Programme Framework is an agreement with a government on priority issues of the country for which FAO provides technical support. The table below presents a summary of the priority areas identified by the countries of the Dry Corridor that allow to analyse how governments perceive the importance of FAO's support in risk management, resilience and adaptation to climate change.



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FAO PROGRAMME IN THE DRY CORRIDOR

Strengthening resilience to disaster risks

General objective

Provide a programmatic framework to promote actions to reduce vulnerability and increase resilience in the agriculture, forestry, livestock and fisheries sectors.

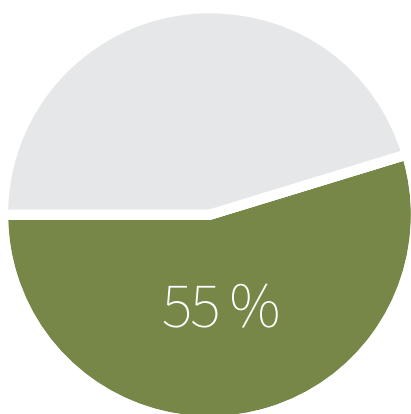
Beneficiaries

50 000
households of
small-scale producers.

Expected results

The resilience of vulnerable rural populations in Central America's Dry Corridor (El Salvador Guatemala, Honduras and Nicaragua) is increased in order to address disaster risk and crises that affect food and nutrition security .

Funding requirements:
USD 12.2 MILLION



Funding gap:
USD 6.7 MILLION

FOUR PILLARS

1. INSTITUTIONAL STRENGTHENING AND FORMULATION OF RISK MANAGEMENT POLICIES

2. DEVELOPMENT OF RISK MONITORING SYSTEMS FOR EARLY WARNING ALERTS

3. ADOPTION OF RISK PREVENTION AND MITIGATION MEASURES TO REDUCE VULNERABILITY AT COMMUNITY LEVEL

4. STRENGTHENING PREPAREDNESS AND COORDINATION FOR TIMELY EMERGENCY RESPONSE

Expected results	Costs (USD)
1. Create an enabling environment Countries adopt and implement institutional, regulatory and policy frameworks to reduce and manage disaster risks in the agriculture sector.	1 778 500
1.1 Strengthen inter-institutional risk management platforms.	650 000
1.2 Countries formulate a disaster risk management plan for the agriculture, livestock, forestry, and fisheries sectors.	536 500
1.3 Countries design and institutionalize a resilience training programme for the agriculture sector.	500 000
1.4 Countries are supported in the development of national governance strategies, policies and incentives in support of the forestry and agroforestry sectors.	80 000
1.5 Analyse investment and public policies to improve comprehensive risk management in the agriculture, livestock, forestry, and fisheries sectors.	12 000
2. Watch to safeguard Countries improve early warning information systems and coordination mechanisms for existing, potential or emerging risks affecting food and nutrition security.	2 333 000
2.1 Countries institutionalize the Integrated Food Security Phase Classification tool to reach consensus on the food security and nutrition situation at national and local levels.	40 000
2.2 Countries implement a monitoring system for agroclimatic risks with emphasis on drought.	762 000
2.3 Countries have an information and warning tool on food price monitoring.	581 000
2.4 Countries have an early warning system on transboundary plant pests and animal diseases .	350 000
2.5 Capacities of local actors are strengthened for the implementation of food security and nutrition early warning systems.	600 000
3. Apply risk prevention and mitigation measures Countries adopt and promote measures to prevent and mitigate disaster risks, contributing to reduce vulnerability at community level.	4 712 000
3.1 Watersheds and ecosystems are managed in a participatory and sustainable manner.	2 000 000
3.2 Strengthen capacities for preventing plant pests and animal diseases at national and local levels.	200 000
3.3. Strengthen national and local technical and institutional capacities for the implementation of financial mechanisms of risk transfer and support to family agriculture.	1 000 000
3.4 Strengthen rural saving banks to design financial mechanisms for risk transfer.	12 000
3.5 Promote good practices and technologies on disaster risk management and climate change adaptation in the agriculture, livestock, forests, fisheries sectors.	1 500 000
4. Prepare to respond Countries improve their preparedness and coordination for timely response in case of emergency.	3 350 000
4.1 Produce high quality seeds and establish reserves (community seed banks for contingency).	2 150 000
4.2 Strengthen capacities in preparedness for response and in the implementation of contingency plans.	100 000
4.3 Establish a coordination mechanism among key actors to manage emergencies related to transboundary plant pest and animal diseases.	100 000
4.4 Support livelihood recovery of the population affected by drought in 2014.	1 000 000
TOTAL	12 173 500

PRIORITY ACTIONS WITHOUT FUNDING

Some of the actions under the resilience programme are lacking financial resources while other priority activities are not funded at all.

PILLAR 1: Create an enabling environment

Countries adopt and implement institutional, regulatory and policy frameworks to reduce and manage risks in the agriculture sector

1. Strengthen inter-institutional risk management platforms.
▶ Estimated cost: USD 500 000
2. Support the formulation of national disaster risk management action plans for the agriculture, livestock, forestry, fisheries sectors with emphasis in priority territories of the Dry Corridor.
▶ Estimated cost: USD 400 000

PILLAR 2: Watch to safeguard

Countries improve early warning information systems and coordination mechanisms for existing, potential or emerging risks affecting food security and nutrition

3. Strengthen information and monitoring systems for agroclimatic risk management, including forest fires at local, national and regional levels, and design of satellite monitoring systems.
▶ Estimated cost: USD 700 000
4. Introduce and adapt the price monitoring tool developed at global level, allowing for better accountability of market fluctuations to prevent speculative crises.
▶ Estimated cost: USD 500 000

PILLAR 3: Apply risk prevention and mitigation measures

Countries adopt and promote measures to prevent and mitigate disaster risks, contributing to reduce vulnerability at community level

5. Strengthen technical and institutional capacities to manage watersheds as well as forest and fishing resources, and enhance ecosystem services with emphasis on indigenous and climate-smart practices in the agriculture sector.

► Estimated cost: USD 1 500 000

6. Strengthen technical and institutional capacities at all levels for the implementation of risk transfer financial mechanisms in support of family farming.

► Estimated cost: USD 1 000 000

PILLAR 4: Prepare to respond

Countries improve their preparedness and coordination for timely response in case of emergency

7. Technical and financial support to produce certified staple seeds and preposition strategic stocks.

► Estimated cost: USD 2 000 000

Cross-cutting activities

South-South Cooperation experience sharing among countries of Mesoamerica

a. Institutionalize disaster risk management in the agricultural sector (Pillar 1).

b. Improve information and early warning systems (Pillar 2).

c. Develop technology and policies for drought management (Pillar 3).

d. Promote financial mechanisms for risk management (Pillar 3).

e. Share preparedness and response experiences (Pillar 4).

► Estimated cost: USD 100 000

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