

Seeds of change

Teaching communities to favor resistant crop varieties, and monitor the weather to anticipate drought risk, improves food security in Honduras

Unlike hurricanes and earthquakes, drought is a slow-onset event that, over months, years or decades, can cause emergency conditions, particularly in the food security of an affected population. Families that subsist on basic grains cultivated on their own lands face increasing vulnerability from month to month and year to year as agricultural losses mount, productivity falls, and seed stocks are depleted. Children are particularly vulnerable during sustained drought conditions, when the quantity and quality of food and water may be insufficient to meet basic needs.

With climate change exacerbating the intensity and duration of droughts, CRS Honduras and Caritas Comayagua, sought a means to help communities to monitor and respond to their food insecurity risk and adapt agricultural practices to new climatic conditions. In drought-affected communities in five municipalities in the southern part of the department of La Paz, CRS launched a pilot project—**Reducing Local Food Security Risks Caused by Climate Change**—to empower communities to make better-informed decisions about their food insecurity risk and broaden their options to respond to such risk.



Photo: CRS Honduras

Demonstration plots allowed community members to compare sizes of corn cobs for each variety, kernel coverage, duration of the cultivation cycle, and losses.

Raising red flags for food security

Because drought is a slow-onset event, resulting food insecurity can be anticipated when the conditions that lead to agricultural losses in a particular geographic area are carefully considered. Thus, the project helped people in the target communities to come together and create an early warning system for food security problems. Committees at the community and municipal government levels were charged with gathering, analyzing, and sharing information about the conditions that affect food security in the area, such as early or late rains, community food and seed reserves, etc.

CRS project staff trained committee members on a range of topics, including **indicators of food security, the links between food security and climate change, risk assessments, and action planning**. In this way, local leaders developed the capacity to analyze the conditions that affect food security and give early warnings in anticipation of food security problems before the situation becomes a disaster, make better-informed decisions about actions that can be taken locally, and advocate for support at municipal, departmental, or national levels, as appropriate. Local leaders were encouraged to take responsibility for the health and wellbeing of the communities they represent and to be proactive about finding solutions to the problems their communities face.

“This project is more than necessary. We live in an area that has six to seven months of intense drought that has led to total losses of staple grain crops. We’re convinced that this project will facilitate all the necessary information to be better prepared, make better decisions and act accordingly so our people can have a better food intake.”

Professor Juan Miguel Mejia
Mayor, Aguanqueterique, one of the five municipalities targeted by the project



Basic meteorological stations, installed with support from the project, enabled committee members to regularly monitor rainfall, temperatures, solar radiation, relative humidity and wind.

Keeping an eye on the weather

The early warning system committee members monitored weather conditions through basic meteorological stations installed with support from the project in two participating communities, each of which has similar weather and agricultural conditions to surrounding areas. **The committee members were trained to regularly monitor rainfall, temperatures, solar radiation, relative humidity and wind.** In addition, information gathered from community health services on child malnutrition rates, from small farmers on agricultural productivity, and from families on their ability to meet basic nutritional needs allowed the early warning system committees to create a picture of the conditions affecting food security in the area, thus facilitating subsequent analysis and decision-making to avoid crises.

Selecting native plants for drought-resistance

The project also allowed for the creation of agricultural demonstration plots to rigorously compare the performance of native varieties of corn, bean, and grass seed in the area, under drought conditions. **The varieties of seed selected for the study were all native to the area and high in nutritional content.** The demonstration plots allowed community members to compare, for example, the length and size of corn cobs for each variety, kernel coverage, duration of the cultivation cycle, and losses. Project staff developed user-friendly reports to share the findings and recommendations based on the following parameters for each variety: adaptability, productivity, resistance, and producer preference. The provision of these reports to local small producers in the area allowed for more informed decision-making, better agricultural planning, and improved practices in soil management and use. The information enabled farming families to adapt their agricultural practices to changing climatic conditions so as to more consistently meet the nutritional needs of their children.



Photo: CRS Honduras

Building resilient communities

The project created more resilient communities equipped with the basic tools to mitigate their food security risk due to drought, including community organization, knowledge, and information. These simple tools are the key to avoiding future food security crises through early action and better-informed decision making at the local level, among those that are closest and most familiar with the problem.



User-friendly crop reports helped project staff share findings in the community to help improve practices.

“This is one of the poorest municipalities in Honduras ... People often lose the whole crop because of the lack of rain. It’s very important to have information about improved grass seed that can resist the summer since this is a municipality of small livestock producers.”

Mrs Reina Marina Moreno
Mayor, San Juan, one of the five municipalities targeted in the project



228 West
Lexington Street
Baltimore
Maryland 21201
+1 410 625-2220

© 2012
Catholic Relief Services
All Rights Reserved
OS1106

www.crs.org

All CRS technical publications are available at crsprogramquality.org