

Farmer field schools

Adaptive livelihood strategies in rural communities of El Salvador help build agricultural resilience to climate change



The Farmer Field Schools worked with native varieties of basic grains and vegetables—such as corn, beans, green beans, cucumbers, and tomatoes—to determine which were better suited to withstand extremely wet and dry conditions.

The small farming families in the communities situated in the flood plain of the Lower Lempa River in southern El Salvador face more unpredictable rainfall and more intense storms than previous generations, and suffer from drought and flooding with greater frequency. According to the 2011 United Nations World Risk Index, El Salvador is ranked 10th in the world in terms of its risk of natural disasters. The Lower Lempa River floodplain is one of the most vulnerable areas in this highly vulnerable context.

For a community to lower its risk to natural disasters, it must develop its coping and adaptive strategies to the risk. CRS and its local partner, Fundación Salvadoreña para la Reconstrucción y el Desarrollo, designed a project with targeted communities on the river's floodplain to cope with new conditions brought about by climate change, and adapt livelihoods strategies to ensure greater resiliency to future climate change.

Small farmers come together to discover solutions

Many of the families within the targeted communities rely on agricultural production on their small family plots for their own consumption and for their livelihoods. The project incorporated a simple methodology to bring these farmer families together, experiment with ideas, analyze results, and share findings with neighboring communities. In eight participating communities, a Farmer Field School was established for this purpose. This is a non-traditional school that convenes on a weekly basis in the fields and recognizes that adult learners bring important life experiences and knowledge to the group. The members learn by doing and find solutions to their own problems throughout the process.

The school is facilitated by a project staff member that guides the group, helps members decide what they want to learn, and advises them on their questions.



Group members learned that a micro-irrigation system could be the means to extend agricultural production into the 'hungry' season, a period of three to four months when families' food stocks tend to run low.

Ways to cope and adapt

The Farmer Field Schools worked with native varieties of basic grains and vegetables—such as corn, beans, green beans, cucumbers, and tomatoes—to determine which were better suited to withstand extremely wet and dry conditions. The group visited the fields on a weekly basis, checking plant growth and moisture levels in the soil, and practicing improved production techniques. These local experiments with native seeds eventually allowed the farmers to compare, for corn plants for example, the size of the corn cob, flavor, plant height, and suitability of the stalks and leaves for feeding livestock. In this manner, **the farmers were able to determine the seed varieties best suited for local conditions.**

In addition, the schools experimented with simple micro-irrigation systems to extend the growing season of crops into the dry season, when crops have traditionally not been produced in the area. **For the corn crop, micro-irrigation systems allow farmers to add a third production cycle during the year.** Group members learned that a micro-irrigation system could be the means to extend agricultural production into the 'hungry' season, a period of three to four months when families' food stocks tend to run low and they must buy food in markets to meet basic needs.

Ultimately, the Farmer Field Schools worked to establish and stock a community seed bank, a collection of preferred varieties of seeds that is maintained and administered by the community itself. Seed banks ensure seed security and improve access to seeds. A community seed bank is one of many important coping and adaptive strategies that help to minimize risk.

Preparing communities for the future

While supporting farmers to cope with and adapt to the effects of climate change, the project also supported 29 communities within the Lower Lempa River floodplain to better prepare for future flooding scenarios and to improve an early warning communication system for emergencies. The project provided local authorities with poles with which to measure the river level and to identify the 'alert' level. This tool has helped local authorities to communicate flood risks during emergency situations to communities in the area. Three communities were equipped with loud-speaker equipment to warn community members of dangers and facilitate evacuations when necessary. These efforts, paired with raising disaster-risk awareness in the targeted communities, go a long way towards improving the communities' response to emergencies, minimizing losses, and building resiliency.

Ultimately, the Farmer Field Schools worked to establish and stock a community seed bank, a collection of preferred varieties of seeds that is maintained and administered by the community itself



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