

# Prosperity from the Ground Up

## Regenerating Water and Soil for a Resilient Future for Farming in Mesoamerica



Water Smart Agriculture, or Agua y Suelo para la Agricultura (ASA), seeks to reverse the negative impact of outdated farming practices and changing climate conditions and provide new opportunities for Mesoamerica's economy and future, beginning with smallholder farmers. For farming communities threatened by decreasing productivity, ASA is the knowledge-based approach that positions farmers to maximize the potential of their land—and cultivate a prosperous future.

### THE CHALLENGE

Some of the practices that farmers have used for centuries are no longer producing the same results. Agricultural policies and farming have focused solely on output, promoting practices that deplete the soil and contaminate the water. Approximately 80% of farmland in Central America has been affected by soil degradation due to these unsustainable farming methods, threatening local economies, natural resources and food security across the region. Changing weather conditions, including higher temperatures and longer dry spells, are inflicting further damage. Smallholder farmers—families who account for up to 50% of the region's agricultural

production—have been left to struggle with the poverty and hunger that stem from reduced yields.

### THE OPPORTUNITY

The promise of Water Smart Agriculture is the practice of restoring soil to manage water and increase yields. The ASA approach provides practical and effective methods for adapting to the region's increasingly extreme and variable climate, boosting productivity and stabilizing livelihoods and communities.

### ABOUT OUR APPROACH

A set of simple, evidence-based solutions help farmers rapidly restore soil and protect water – while boosting yields and livelihoods for years to come. We do that by increasing the infiltration and retention of water in soil, making more moisture available to crop roots, rather than losing it to runoff or evaporation. ASA shifts away from conventional agriculture practices that strip soils bare. We keep soil covered and manage soil fertility. This increases organic matter, restores soil health and leads to higher production. It also plays an important role in restoring and conserving the water resources of communities downstream.



**ASA** AGUA Y SUELO PARA  
LA AGRICULTURA

THE HOWARD G.  
**BUFFETT**  
FOUNDATION

Partnerships in every country where we work include an array of agricultural institutions, rural organizations, local and national governments, and policymakers. Together, we invest in, design and implement local solutions that are taking hold across entire landscapes.

To make an impact at scale, ASA builds credibility

through science-based evidence—including field trials with more than 3,000 small-scale farmers in five countries—measuring yield, income, soil moisture and soil organic carbon. We’re maximizing adaptation of ASA’s proven techniques through a series of innovative tools, including a toolbox for on-farm soil monitoring and an app for reading digital maps with important soil data.

## WHERE WE WORK



Nicaragua goes to scale through the Training-of-Trainers program, a collaboration of national and local

partners working to grow a network of trainers, technicians, promoters and, ultimately farmers, who are not only well versed in water-smart agriculture but are equipped to teach others.



Guatemala works closely with ANACAFE, the national coffee association, to develop a competency model that

guides quality extension services to thousands of smallholder coffee growers and with the Ministry of Agriculture to incorporate ASA practices in the national extension system.



Honduras partners with municipalities and community associations in the departments of La Paz, Intibucá

and Lempira for landscape-wide implementation of ASA best practices by farmers in critical watersheds.



El Salvador is a model for the use of digital soil mapping as a key decision-making tool for the Ministries of Agriculture

and Natural Resources, the National Center for Agricultural and Forestry Technology (CENTA, its acronym in Spanish), the University of El Salvador, and other actors.



In Mexico, 12 farmer-based organizations in the southern states of Oaxaca, Chiapas, Puebla and Tlaxcala have created a regional ASA platform and are working together to reach thousands of farmers with ASA practices.

Find out more about how Water Smart Agriculture builds prosperity from the ground up. Join us at [asa.crs.org](http://asa.crs.org) or contact [Alejandro.martinez@crs.org](mailto:Alejandro.martinez@crs.org)