



El Salvadoran farmer demonstrates the impact of Water Smart Agriculture practices on his maize.
Photo by Carlos Cajal for CRS



Transforming Livelihoods and Landscapes Initiative

SCALING LAND RESTORATION

The Challenge

Across the globe, small scale farmers' food and livelihood security has become increasingly precarious. These farmers—50% of whom are women—are on the frontlines of a global crisis of degraded land that costs the world over \$200 billion and 75 billion tons of topsoil annually.¹ 1.3 billion people live on marginal lands that are prone to degradation. The majority are chronically vulnerable farm families who depend on the land for their food and income. Unsustainable farming practices, climate change and the expansion of farmland into forest and other natural areas drive a cycle of degradation and resource scarcity that keeps families locked in poverty.

Over time, nutrient depletion and loss of organic matter have resulted in reductions in soil moisture, plant vitality, nutritional quality and overall crop yields. Unable to produce enough food or income for their families, small-scale farmers are increasingly at risk. The United Nations' most recent reports on the State of the World's Food Security and Nutrition² point to this emerging trend of rising hunger and malnutrition, especially for the world's most vulnerable people. Unaddressed, land degradation threatens the world's food and water supplies, and the loss of agriculture as a viable livelihood for the next generation.

"As a result of erosion over the past 40 years, 30 percent of the world's arable land has become unproductive."

David Pimental,
College of Agriculture
and Life Sciences,
Cornell University

1 The Global Cost of Land Degradation: <https://link.springer.com/book/10.1007/978-3-319-19168-3>

2 <http://www.fao.org/3/ca5162en/ca5162en.pdf>

At Catholic Relief Services, we work with farm families around the world to achieve dignified and resilient livelihoods in flourishing landscapes.



STRATEGIC CHANGE PLATFORM

Transforming Livelihoods and Landscapes

To be bolder and more focused in our ambition to be catalysts for transformational change at scale, we are investing in six strategic change platforms as part of our Vision 2030 agency strategy.

Each of the six platforms share a common objective: to achieve results at scale.

Our platform here builds on decades of experience working with small-scale farmers and rural communities to build capacity and stimulate rural livelihoods. Together with our local partners and government collaborators, we now focus on land restoration at scale to unlock the current cycle of poverty, reduce risks and pave a sustainable path to prosperity.

Our Solution

Catholic Relief Services seeks to break this cycle of poverty by investing with farmers to restore the health of soil and availability of water. Practices which have contributed to environmental degradation and worsened the impacts of climate change (e.g., burning, deforestation, over-grazing, etc.) can be replaced with those that not only produce more abundant crops, but also regenerate the soil and recharge ground water, leading to greater resilience and agricultural opportunities for future generations.

CRS' **people-centered approach** builds small-scale producer capacity to create a more prosperous and sustainable future. CRS understands farmers' need for low-cost and low-labor solutions with rapid returns of income and water availability. We work directly with farmers, starting with land restoration and knowledge, then adding financial services and enhanced market linkages. Farmers working with CRS to apply land restoration practices can achieve significantly increased yields and income within one to two agricultural seasons.

Understanding that land degradation is a root cause of poverty, CRS expands the restoration equation beyond forest lands to **target agricultural and pasturelands** in a landscape perspective. We elevate the community's role and the contributions that healthy farms and pastures can make to protect forests, water sources, and other natural resources. The nature-based solutions at the heart of this work are essential for climate change adaptation and mitigation, restoring vital ecosystem services that keep rural livelihoods productive for future generations.

Global Response

Many countries have recognized the impact of land degradation on people and the economy. In response to the Bonn Challenge and other initiatives to scale restoration, at least 58 governments have pledged to restore vast amounts of land. However, delivering on these national-level commitments can only be achieved through local action—making small-scale farmers a critical part of the solution. Addressing the degradation crisis calls for transformational change at scale—a systems-level response that overcomes the limits of the traditional project model and especially values collaborative action. CRS promotes systems change at multiple levels to transform current approaches to agriculture for lasting impact through several key components:

- **Innovate** with farmers, communities, and institutional stakeholders to accelerate adoption and farmer-driven change. CRS works with farmers to better understand and respond to their incentives and obstacles, streamlining approaches to identify the least cost, highest return practices, and accelerating effective farmer-to-farmer uptake.
- **Expand** programming so that skills-building, communication, and services reach more people and communities; develop community-to-government feedback loops that channel information and evidence to inform government decision-making.
- **Catalyze** the adoption, adaptation, and investment in restoration approaches by partners, peer organizations, national/sub-national levels of government, and the private sector.
- **Collaborate** with governments and multi-stakeholder platforms to operationalize government restoration goals, providing research support, improving measurement, increasing access to technology and resources, and supporting coordination among multiple actors—all while ensuring a focus on people and livelihoods. We work with our stakeholders to identify their motivations for restoration and to understand the problems they want to solve.



CRS Models

Soil and water management is the cornerstone of agricultural restoration and sustainability. CRS has successfully implemented these four models with exceptional results.

1. Drylands Regreening

Farmer Managed Natural Regeneration promotes the growth of trees in the farming system to improve soil fertility by fixing nitrogen, locking in moisture and recycling nutrients; rainwater capture through zai holes and demi-lunes improves water-use efficiency and enhances water infiltration; increased soil cover facilitates moisture retention while reducing soil temperature and boosting nutrient content.

2. Watershed Restoration

CRS' approach to watershed restoration combines on-farm conservation agriculture with off-farm watershed structures and soil cover to slow water flow, avoid erosion, and augment soil moisture. Increased vegetative cover and trees hold soil and nutrients in place, while all practices work together to recharge ground water and replenish stream flow.

3. Water-Smart Agriculture

Increasing ground cover and incorporating organic matter into the soil allows it to retain nutrients and build moisture-holding capacity. Rainwater capture increases infiltration and promotes water retention in the soil. Appropriate fertilizer use—the right fertilizer, in the right amount, at the right time and in the right place—increases soil health and reduces contamination of waterways.

4. Multi-Story Agroforestry

Multi-Story Agroforestry applies the five F's of agroforestry: food, fodder, fertilizer, fiber, and fuel. Farmers establish layered systems of crops and trees to increase market opportunities and income, fulfill household consumption needs, and simultaneously restoring soil health, tree cover and biodiversity.

SUCCESS OF CRS MODELS

Depending on the agro-ecological zone, CRS works with farmers, extensionists, local partners, and governments to apply the appropriate restoration model. In each case where these models have been deployed, impacts were rapid and consequential for farmer income, community food security and water availability. In addition to increased production and income in all participating countries, examples include:

- Increased dry season production in Guatemala
- Reduced dependence on food assistance in Malawi
- Restored water sources in Lesotho



Left to right: Nicaraguan farmer demonstrates the richness of his soil after applying WSA techniques. (Photo by Oscar Leiva/Silverlight for CRS); Community group in Lesotho stands before the stone bunds they constructed, which restored springs on the mountain and streams in the valley below. (Photo by Geoffrey Heinrich/CRS); Malawi farmer is proud to show off stone bunds constructed to stop soil erosion on his farm. (Photo by Geoffrey Heinrich/CRS)

A Resilient Future

Supported by growing international commitments to reverse environmental degradation and address climate change, CRS' approach links sustainable land management to increased food security and improved rural livelihoods. Working through existing networks of local partners and communities, CRS is well-positioned to connect farmers' needs, capacities and potential to government and private sector goals and investments. Working closely with government and a wide array of local stakeholders, CRS builds bridges between communities and government decision-makers, helping create the enabling conditions that support farmer-driven restoration. To achieve scale, CRS is prioritizing collaboration with local actors to co-create and refine high-impact, cost-efficient practices for easy uptake by farmers and rural communities and promoting widespread adoption through government initiatives and multi-stakeholder platforms and programs. By placing people at the center of restoration strategies and connecting environmental and economic goals, CRS' approach will accelerate and sustain restoration for more resilient farms and communities for generations to come.



**We believe in transformation on a global scale.
Faith knows no bounds.**

Learn more at crs.org.

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