



Guar farmers Jhuma and Jagdish harvest their crop in their field in Hameira village, Bikaner, Rajasthan, India.  
(Image: TechnoServe / Suzanne Lee)

## Regenerative Agriculture

### WHY IT MATTERS

Approximately 500 million out of 570 million farms worldwide are smallholder farms. Globally, smallholder farmers are considered to be disproportionately vulnerable to the impacts of climate change. Their crop and animal productivity as well as their household's food security, income, and well-being are directly affected by changes in temperature, rainfall and the frequency or intensity of extreme weather events. Every year, smallholder farmers across the world spend US\$368 billion adapting to climate change and nature loss. Many of these farmers operate on narrow profit margins and lack the necessary resources for climate mitigation and biodiversity conservation. Food systems are the primary driver of biodiversity loss, emphasizing the critical importance of advancing regenerative agriculture to reverse biodiversity loss.

### QUICK FACTS

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### TECHNOSERVE'S APPROACH

Underpinning all of our technical competencies is a commitment to deliver regenerative business solutions that enable farmers and businesses to prosper while becoming more environmentally sustainable and resilient. We see regenerative agriculture as a nature-based solution for climate mitigation and biodiversity conservation. We support the adoption of farming techniques that regenerate, rather than degrade, nature so that people and markets can prosper in the long term. These practices increase smallholder resilience and incomes, reduce emissions and sequester carbon, and improve biodiversity.

TechnoServe knows that regenerative agriculture isn't a one-size-fits-all solution. It's crucial to take into account local soil health, current farming methods, and the needs and finances of farmers. Often, environmentally focused projects ask farmers to make significant changes without clear short-term financial benefits or support during the transition. Many farmers operate with small profits and need quick, measurable economic gains to speed up the transition. TechnoServe's approach includes providing technical training and incentives to empower farmers to adopt climate-resilient and regenerative practices, benefiting nature and boosting their incomes. We work with market players to create long-term incentives for change, believing this is crucial for making a lasting impact.

# Regenerative Agriculture

## Our Work

### **SUSTAINABLE GUAR INITIATIVE (SGI) | SOLVAY, HENKEL | INDIA | 2014-2026**

In partnership with Solvay, L'Oréal, and Hichem, TechnoServe is demonstrating and refining scalable actions for inclusive, sustainable growth and competitiveness of the guar market system in India. The project has achieved a 25% increase in guar farming yields and revenues for 1,500 participating households; reduced water waste and loss; and improved gender dynamics among guar farming households. To promote environmental awareness, 69,000 trees have been planted across 36 villages, and one silvopastoral unit has been established with 1,500 trees and a variety of fodder grasses. The program has promoted groundwater-neutral approaches, including the renovation of traditional rainwater harvesting structures (Johads), the construction of 24 sand embankments (Khadins), and the construction of 21 rooftop rainwater harvesting structures. As of 2023, the project has implemented regenerative agriculture on 26,583 hectares of land.

### **ADDRESSING MANGO PRODUCTION AND POST-HARVEST LOSS AND INCREASING FISH YIELDS (AMPPLIFY) | USDA | COTE D'IVOIRE | 2023-2028**

The AMPPLIFY project will facilitate a resilient and growing trade of mango and fish, sustained by profitable farmers making ongoing productivity and climate-smart investments in their farms. We will use a facilitative market-based approach that leverages the private sector to drive incentives and behavior change, which can improve productivity, trade, and food security through the provision of high-quality, accessible goods and services for farmers and other value chain participants. Our consortium partner, the American Soybean Association's World Initiative for Soy in Human Health (WISHH) is a full-service provider of aquaculture sector solutions. The program will support producers to reach \$104M in annual sales, increase average aquaculture yields by 67% and total volumes to 19,00 MTs/year (a 50% reduction in current import volumes), and reduce mango post-harvest loss from 60% to 20%. The program will directly reach 10,000 individuals and over 35,000 indirectly.

### **MADRE TIERRA | DANONE | MEXICO | 2019-2024**

In partnership with Danone, TechnoServe is implementing the Madre Tierra project, which promotes low-carbon, water-efficient strawberry production that regenerates local biodiversity. Madre Tierra facilitates improved irrigation and regenerative farm practices such as use of cover crops, improved agrochemical control, and integrated pest management.



*Farmer in the Gorilla Coffee Alliance program pruning trees. (Image: TechnoServe / Fabien Mongane Rubango)*

Madre Tierra supports farmers to plant pollinator strips of a variety of flowers to increase bee count and farm biodiversity. Through the application of these practices, farmers have increased their yield by 12% and income by 37% while reducing water usage by 36%. To date, the project has mitigated 2,247 tons of greenhouse gas emissions.

### **GORILLA COFFEE ALLIANCE | USAID | DRC | 2021-2026**

TechnoServe partners with USAID, the Wildlife Conservation Society, Nespresso, Olam Food Ingredients, and Congolese social enterprise, Asili, to support 8,500 coffee farming households and reduce poaching and deforestation in DRC's South Kivu province. The project builds a robust and inclusive coffee sector that will create a cycle of conservation and prosperity by incentivizing forest habitat conservation, increasing incomes, and building local capacity for landscape transformation. TechnoServe trains farmers on regenerative agricultural practices and supports local enterprises that incentivize conservation action. By the end of the program, 8,000 farmers will adopt regenerative agriculture practices, 65,000 people will gain access to safely managed water services, and industry poaching indexes will decrease by 20%.