



Geeta Devi, a vegetable farmer in Bihar, India, harvesting cauliflower  
(Image: TechnoServe / Suzanne Lee)

## Sustainable Sourcing

### WHY IT MATTERS

Agriculture and food supply chains contribute significantly to the world's carbon footprint, with Scope III emissions — especially at the farm level — playing a major role. This raises concerns about achieving carbon targets, improving the livelihoods of smallholder farmers, and how to better integrate them into global supply chains. Strengthening the economics and climate resilience of existing models while introducing zero- or low-carbon farming models is essential.

Smallholder farmers face significant challenges in reaching buyers who offer fair prices, limiting their income potential and ability to invest in their farms. Many also lack access to financial services and credit, which are essential for investing in productivity and climate transition. In 2020, only 0.8% of the total climate finance across all sectors supported small-scale agrifood systems. Additionally, limited training and information hinder productivity improvements. Smallholder farmers are particularly vulnerable to the impacts of climate change due to poverty, marginalization, and reliance on natural resources.

### QUICK FACTS



Agriculture and food supply chains contribute **31%** of the global carbon footprint.

Scope III emissions at the farm level account for up to

**90%** of the carbon footprint of large food and beverage companies.



**Globally,** smallholder farmers are considered to be disproportionately vulnerable to the impacts of climate change

### TECHNOSERVE'S APPROACH

TechnoServe helps to identify and implement solutions that improve farmer wellbeing, reduce carbon emissions and nature loss, and strengthen supply chains. Through our analysis, we help corporate partners prioritize investments in areas with the strongest carbon reduction potential, ensuring impactful outcomes.

Engaging top-level leadership is key for driving regenerative initiatives and facilitating cross-departmental cooperation within companies. At the implementation level, we support smallholder farmers in adopting regenerative practices gradually, enabling continuous learning and scaling of successful approaches.

Understanding farmer motivations and aligning incentives with environmental goals are vital for encouraging the adoption of sustainable practices. Additionally, we aim to influence and shape the broader ecosystem by working with other companies, governments, and donors to scale beyond individual supply chains. By partnering with the private sector, TechnoServe promotes the development of more sustainable and inclusive supply chains by empowering smallholder farmers, promoting regenerative agriculture practices, building long-term relationships with the private sector, and building the case for scalable models.

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## Our Work

### **SUPPORTING MAIZE FARMING HOUSEHOLDS IN KARNATAKA TO ADOPT REGENERATIVE AND SUSTAINABLE PRACTICES | CARGILL | INDIA | 2023-**

TechnoServe is supporting 10,000 maize-farming households in Davangare, Karnataka to bring over 25,000 acres of land under regenerative production. Leveraging our extensive experience and expertise in delivering on-the-ground agriculture solutions to farmers and building on our existing presence in Karnataka, the program will enable maize farming households to contribute towards positive environmental outcomes, improve their climate resilience, and increase their revenue.

This will be achieved by building farmers' capacity to adopt regenerative agriculture practices and conserve water.

Moreover, the program will strengthen farmer producer organizations (FPOs) to become the focal point to promote the adoption of these practices.

### **INCLUSIVE AGRICULTURE PROGRAM | WALMART | MEXICO | 2019-**

In Mexico, TechnoServe has worked with Walmart to transform the sourcing of vegetables, fruits, and herbs. The program builds the capacity of FPOs to aggregate and sell crops into formal value chains. The program also provides training on a bundle of climate-smart agriculture practices that promote the conservation of soil and water, improve overall climate resilience, and reduce risks of contamination.

The program has benefited more than 28,000 smallholder farmers across 13 states and has helped smallholders bring 58,000 hectares into sustainable, regenerative management.

Participating farmers have seen their incomes increase by 80% and have generated more than \$100 million in sales to multiple buyers.



*Farmer of the Cooperativa de Produccion Agropecuaria 'Flor Del Pino', Sensenti, Ocotepeque, Honduras.  
(Image: TechnoServe / Nile Sprague)*

### **NESPRESSO AAA SUSTAINABLE QUALITY PROGRAM | NESPRESSO | ETHIOPIA AND KENYA | 2013-**

TechnoServe is working with Nespresso to enhance the sourcing of high-quality coffee from Kenya and Ethiopia. The partnership focuses on improving farmer incomes and resilience to climate change, supporting socioeconomic development in farming communities, and creating an environmentally and socially sustainable coffee supply chain.

In East Africa, the AAA Sustainable Quality Program has helped farmers and cooperatives plant over 1 million shade trees and manage 50,000 acres of coffee-growing land using regenerative practices.

The program is also helping to scale an innovative, nature-based solution to the challenge of wastewater pollution. Vetiver grass wetlands have prevented more than 56,000 cubic meters of contaminated wastewater per year from entering rivers.

Across its interventions, the program has benefitted more than 300,000 individuals.