

# Integrating Smallholders into Zambia's Soy Industry

Market Interventions Create Opportunities along the Value Chain



**Sub-Saharan Africa contributes less than one percent of the world's soy**, but the crop has the potential to become a key source of income for the continent's smallholder farmers. A growing livestock industry creates the market demand for local soy production and processing. When used in rotation with other crops such as maize and cotton, soy contributes to revenue and risk diversification, additional income and yield increases.

To help farmers in southern Africa capitalize on this opportunity, TechnoServe developed a program to increase the incomes of 37,000 smallholder families in Mozambique and Zambia through enhanced and expanded soy production and increased market efficiencies. The program, operated from 2010 to 2014, was funded by an \$8 million grant from the Bill and Melinda Gates Foundation.

## MARKET CONTEXT IN ZAMBIA

When TechnoServe's intervention began, opportunities for smallholder farmers in Zambia were limited, with large commercial farmers dominating the well-established domestic market. Smallholders who were growing soy often failed to access quality seed, inoculants and other inputs needed to make their crops more profitable, as the large input companies did not see a worthwhile market opportunity in serving smallholders, who were not yet convinced of the need for improved seed. The market for smallholder soy was fragmented, with traders buying from individual farmers at the source, leading to increased transport costs and squeezed pricing.

## RESTRUCTURING THE MARKET

After testing several models, TechnoServe introduced several successful innovations into the Zambian soy market, benefitting players along the value chain and helping smallholder and emerging farmers move up

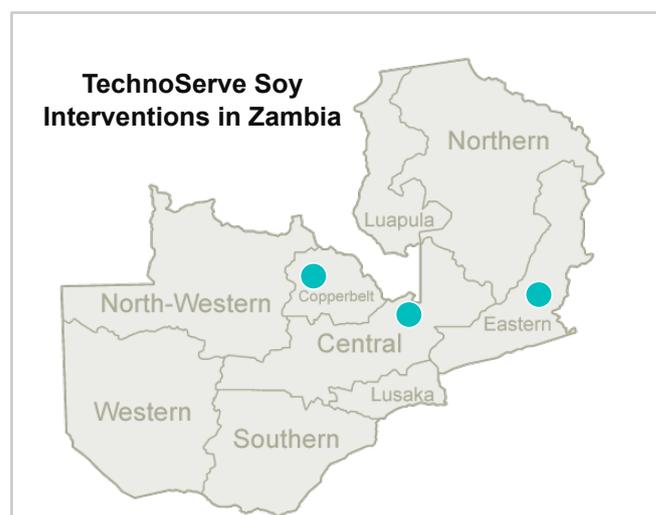
the ladder toward commercial production.

One of TechnoServe's game-changing interventions was developing a network of soy aggregators, helping smallholders break into the soy market while helping emerging farmers expand their businesses.

TechnoServe recruited successful "emerging farmers," typically farmers with existing agro-shops offering a variety of agricultural products and services, who received training on how to develop this new business segment and understand its potential for revenue growth. Aggregators were linked to feed processors through a forward contracting mechanism that guaranteed minimum purchase price.

TechnoServe also worked with corporate partners like Cargill to help maize and cotton farmers to diversify into soy. Farmers were encouraged to synchronize maize and cotton sales with the delivery of inputs, enabling farmers to invest in soy production without needing to take on additional debt.

Farmers were trained in good agricultural practices, including seed selection and input application, through demonstration plots created in partnership with Zambian Ministry



of Agriculture and eight agro-companies. Meanwhile, TechnoServe helped foster business relationships between agro-dealers, cotton companies and seed companies to create a more effective input delivery system for smallholders.

As the program came to a close in May 2014, its impact was clear, with 9,795 farmers having more than doubled their income from soy. Having seen the quality of smallholder soy, processors are now buying from aggregators at prices previously reserved for commercial growers.

A closing workshop linked aggregators with the Zambia Grain Traders Association, which will help them develop an export channel for their businesses. The Zambian bank Zanaco, meanwhile, is developing a financial product tailored to their businesses, and Focus Insurance is looking to create an aggregator insurance product, another sign that TechnoServe's market interventions have gained momentum and are on the path to sustainability.

### Program Results at a Glance

- **9,795** Zambian farmers trained in good agricultural practices, marketing and other key areas
- **11,712** hectares of soy planted by smallholder and emerging farmers — up from just 695 hectares at the program start
- **Annual average incomes from soy more than doubled** as of 2013 season
- **Average smallholder yields increased by 20%**
- **Women's participation in soy farming increased to 25%**
  - An estimated 60% of soy farmers adopted mechanization methods
- **82% of participating farmers linked to markets** through aggregators
- **51 aggregators mobilized** by TechnoServe, including **13 women**
- **28 aggregators signing forward contracts** with processors

### Soy Pays Off for Entrepreneurial Farmer



A former truck driver, Grey Mweemba decided to dip his toes into agro-entrepreneurship in 2000, growing maize and peanuts and operating a mobile agro-dealership using a bike and cart for door-to-door delivery of inputs.

In 2011, Grey invested in a brick-and-mortar shop, selling inputs on a commission basis. In the same year, he joined TechnoServe's soy program and planted one hectare of soybeans to test the new crop, selling his harvest to a poultry producer in a nearby district.

After being trained on good agricultural practices, price risk management, and market logistics, Grey expanded his soy field to three hectares. TechnoServe also encouraged him to aggregate soybeans at harvest, and helped him sign a forward contract with Mount Meru Millers, Zambia's leading soy processor.

To overcome the difficulties Grey and others faced accessing working capital loans from local banks, TechnoServe worked with Mount Meru Millers to make the cash available at key aggregators' buying posts. That season, Grey aggregated 85 MT from 417 farmers.

The following season, Grey planted six hectares of soy and used profits from maize as startup capital to aggregate and deliver 93 MT soybeans -- grossing US\$52,528 in revenue. With the proceeds from his two seasons as an aggregator, Grey was able to buy a secondhand tractor, a ripper, and two maize mills, and almost triple his soy planting. In addition to inputs, Grey now provides tillage, aggregation, and maize processing services to more than 600 neighboring farmers.