Soybean

Value Chains for Rural Development in Burma

The **USAID-funded** Value Chains for Rural Development project (VC-RD) integrates smallholders and poor rural households into competitive commercial value chains to increase productivity and achieve inclusive agricultural growth. The five-year project (2014-2019) is part of **Feed the Future**, the U.S. Government's global food security initiative.

Strengthening the Soy Value Chain in Burma — Strategy:

VC-RD's strategy in the soybean value chain is to support growth of an inclusive soybean industry in Burma that meets the quantity and quality requirements of the domestic food-based end-market. The project also focuses on the soy-food processing sector, working directly with major processors in Rangoon and Mandalay to upgrade capacity and food safety standards to produce safe and healthy products, and potentially obtain certifications that can help producers tap new markets.

Soy Producers and Target Areas:

Soybean is produced across Burma, with about 50% of all production originating in Shan State; of that amount, about half originates in Southern Shan, where VC-RD works. There, the majority of soy is produced during both rainy and dry seasons primarily in seven townships (Lawksawk, Pindaya, Kyauktalone Gyi, Loilen, Mong Nai, Namsang and Laihka). VC-RD works intensively in these areas with trained, community-based extension agents, directly targeting 8,000 smallholder households for support.

Soy Production — Constraints:

Major constraints faced by smallholder farmers to meet market demand and get the best prices for soybean include:

- Harvest during rainy season, which leads to grain with high moisture, mold, and brings down prices
- Decreases in upland soil fertility due to increased maize mono-cropping in the region
- Lack of access to quality seed and improved technologies
- Lack of access to seed varieties with different cycle lengths, which could provide more options for farmers to spread out harvesting periods and take advantage of higher market prices when soybean supplies are limited.

Producer Level — Innovations and Actions:

The project has held more than 60 Farmer Field Days at demonstration plots during both rainy and dry seasons. At these sessions, influential (lead) farmers examine the results of trials of new production practices and technologies, then share with other farmers in their villages. The project also organizes technology demonstration (dryers and hand seeders) in central locations where farmers, traders, end-users and other stakeholders are invited to observe and interact. Specifically, the following have been introduced at Field Days and/or demonstration activities:

- Introduction of six new seed varieties with varying cycle lengths adapted to farmers' constraints
- Introduction of new seed production practices
- Demonstration of drying technology (through access and installation of flat-bed dryers)
- Introduction and demonstration of improved, air-tight, polyethylene storage bags
- Introduction and testing of hand seeders
- Use of Rhizobium inoculant (available locally)
- Introduction of rotation or intercropping of soybean and maize during the rainy season.

(These actions are supported by VC-RD's field team working with lead farmers and lead firms (owners of businesses participating in seed storage trials and dryer demonstrations). The project works with community-based trainers called Local Field Assistants to conduct Field Days and monitor the status of demonstrations.)

Off-Farm Level — Innovations and Actions:

- Support investments in tofu factory upgrades and food safety through Hazard Analysis and Critical Control Point trainings and support for certification

- Facilitate contract farming arrangements between processors and soybean smallholder farmers

- Create market linkages between tofu factories and high-end retailers, caterers and hospitality services.

(These actions are supported by VC-RD's private sector team with linkages to processing companies including Yangon Nike Bean Factory; Mandalay T-Brand Tofu Factory).

Impacts (Selected) after one full harvest cycle

- In FY 2016 VC-RD presented 7 improved technologies including flat-bed dryers, airtight storage bags, hand seeders, Rhizobium inoculant and locally adapted soy varieties **to 6,070 soy producers**
- In Q1 of FY 2017 the project facilitated more than $1 million in investment by lead soybean processing firms in equipment upgrades and other improvements, creating increased demand for high-quality, locally grown soy

Expected LOP impacts include:

- 30% increase in incremental sales of smallholder-produced soybeans mainly through increase in quality of the grain;
- 30% increase in gross margin as a result of increased production and sales through better use of GAP and proper use of improved inputs;
- At minimum $2 million increase in private sector investment in tofu processing through factory upgrades and expansion;

FAST FACT: ***The area of soy planted during the rain-fed season in Burma is decreasing due to unpredictable rain patterns, with rains often setting in late. To cope with this changing climate dynamic, farmers need access to new varieties of soy with varying maturation cycles to help them adapt, maintain competitiveness in the market and increase profitability from this important and nutritious crop.***

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