

CASE STUDIES LATIN AMERICA

CASE STUDY 57

Nationally produced corn: a source of income and savings

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Country & sector:

Agriculture, Ecuador

Context

Ecuador's economy relies heavily on agriculture, representing a quarter of its GDP of which corn plays a big role. Almost 70% of all corn farmers are medium and small-scale which means they work on less than 20 hectares of land with an average daily income of US\$ 0.63.

The production of hard yellow maize in Ecuador is highly variable, and insufficient to meet demand. Medium and small-scale farmers participate in this production which only provides enough volume for 50 percent of domestic demand. Additionally, average maize productivity in the country is below the international average; in 2006, after an average annual increase of 10 percent since 2000 as a result of the use of high yield hybrid seeds, productivity reached a level of 3.42 metric tons per hectare per year but in some areas productivity is still below 2.5 metric tons per hectare per year.

This still remained below the average of other maize producers, such as the United States of America, China, Brazil, and Peru, with the latter two countries averaging 3.8 metric tons per hectare per year.

The Ecuadorian government protects domestic maize producers through a price band system that uses an import tariff that fluctuates according to international prices. Likewise, the Harvest Absorption Program forces industrial importers to first buy 100 percent of the national production in order to have access to import quotas. There are almost one hundred producers of maize-based animal feeds in Ecuador. In 2008, the National Food Processing Cooperation (PRONACA, in Spanish), a major national consumer, absorbed the supply capacity of yellow maize from local suppliers, dealers, and large farmers in the country. These suppliers provided the company with 40 percent of its total annual demand of 350,000 tons; the company had to import the remaining 60 percent.

In order to reduce import dependence and support governmental and constitutional objectives of promoting food sovereignty, PRONACA needed to increase its local supply of yellow maize. However, the initiative had several problems that hindered the relationship between small BoP producers—who had yet to form associations—and the company.

Clients and partners

Established 52 years ago, PRONACA is one of the largest companies in Ecuador. Its main activity is to produce and market chicken and pork products. The company generates approximately 6,500 direct jobs and is the eighth largest company in the country, measured by sales volume, with annual sales above US\$ 550 million. Additionally, the company is the leading buyer of hard yellow maize in Ecuador, which constitutes a main component of animal feed, an essential input for the company's livestock activity.

More than 18 years ago, PRONACA set forth as one of its strategic objectives the goal to increase its local supply of maize. With this in mind, the company launched a contractual system targeting large and medium size farmers. Although PRONACA has worked with small BoP producers for 25 years, the Inclusive Business launched with SNV technical assistance has become an opportunity for the company to expand its BoP producer base, thereby assuring a reliable, affordable and quality supply of domestically sourced raw materials

essential for the company's production activities. The Inclusive Business also contributes to the agricultural development and competitiveness of the country.

In early 2007, the SNV and WBCSD Alliance approached PRONACA with a proposal to develop an Inclusive Business directed at strengthening its national network of maize suppliers. This proposal sought to integrate the company's strategy of increasing its base of local BoP suppliers with the needs of small-scale maize producers in Ecuador by linking them to the company's value chain.

Intervention logic and methods

SNV used its experience to develop an Inclusive Business model with small-scale producers for PRONACA for the purchase of raw materials from associated medium and large producers, with the objective of improving the conditions of farmers in terms of their income, technical capacities, access to credit, and security in the sale of their product under favorable conditions. Producers who participate in the Inclusive Business are located in the province of Guayas, one of the regions in the country with higher maize production and characterized by the highest concentration of small-scale producers. In October 2007, SNV and PRONACA conducted a farmer survey of 624 geographically referenced households in the province in order to develop, based on this information, a profile of the participants and a teaching methodology appropriate for the local reality.

Once the information was analyzed, the profile required for those farmers who would become leaders and local capacity builders of other farmers was defined, as well as the general profile for the participating BoP farmers. The role of the lead farmer is to assure the sustainability of the model and facilitate access to financial services and specialized training for the small or grass-roots farmers—identified as being the most vulnerable in the production chain.

Participants gain access to training services, to new technologies that have been proven in the test plots of PRONACA, and in some cases, to credit for inputs, which is borrowed against the delivery of their harvest. This Inclusive Business was designed to generate a positive impact on the income of farmers, either through the increase in crop productivity or through the possibility of incorporating a second crop in their plots through crop rotation.

Additionally, the Inclusive Business helps to solve the main obstacles faced by the poorest farmers who, in general, rent the land they cultivate, attain only one production cycle per year, pay high interest rates for credits to buy inputs, and receive very low prices for their crops from informal buyers. These conditions, among others, do not allow them to overcome the poverty cycle and forces them to continue surviving with an approximate monthly income of US\$ 72.23.

The business model aims to identify and select a group of lead farmers, according to a previously defined profile. The lead farmers will be in charge of qualifying and selecting small producers, who already maintain a trusting relationship with the lead farmers, but are identified as the most vulnerable in the production chain. As stated earlier, the role of the lead farmer is to assure the sustainability of the model by facilitating access to financial services and specialized training for small producers.

Likewise, lead farmers act as debt guarantors for small producers that need loans for the purchase of inputs and also provide them with technical assistance. The lead farmers receive as payment for these services a commission based on the harvest that small farmers sell to PRONACA. This method uses the support of farmer leaders to help the smaller producers throughout the process, from training and provision of inputs to the delivery of the harvest to the collection centers.

The Inclusive Business consists of three innovative elements that generate a new business management model for the company.

The first consists of a training and technical assistance program for lead farmers consisting of two modules. The first module, planned for 40 working hours introduces rural micro-entrepreneur skills aimed at identifying the needs of this group of producers and at promoting quality services related to agricultural and nonagricultural production. The second module covers field technology transfer services: intended to provide producers with

technical assistance during the critical periods of the harvest through technological transfer, communication, and leadership skills.

The second element consists of a training program for small farmers, through two basic and intermediate modules of 80 hours each. In the first module, producers learn concepts related to maize cultivation, including the activities required to prepare the soil and to develop a basic cost structure. The second module focuses on other relevant elements of the production environment, optimizing resources to increase the productivity of the land, lowering costs, and improving profitability in a sustainable manner.

The third element focuses on innovation in production. Through what is called validation units, the company seeks to test different irrigation technologies, as well as identify other sustainable production alternatives that can rotate with maize crops and will allow farmers to become more competitive.

During the first year, three validation units of three hectares each were established, which will be monitored for two years. For the second year, three additional units will be established.

Outcome

Under the leadership of SNV in this project, the following outcomes have been achieved:

- Producers gained access to banking services, such as opening accounts and the possibility of receiving payments through direct deposits, which avoids the need of having to get their money from bank teller windows.
- Safe use of agricultural chemicals under the Good Agricultural Practices international standards.
- Improvement in agricultural practices that result in better soil and water quality. There has been a decrease in the use of fertilizers, rotational crops are being used to increase nitrogen in the soil, and integrated management of disease and pests is used.
- Construction of deep water wells that guarantee water supply for the community.

Impact

In terms of impact, the following has been achieved through this project until now

- A 300 percent increase in the purchase of maize from small scale producers, going from 2,000 to 6,000 metric tons between 2007 and 2008.
- An increase in productivity of approximately 16 to 20 percent, depending on the producer, raising their production from 5 to 6 metric tons per hectare in 2007 to 6 to 7 metric tons in 2008.
- An increase of 350 percent in the daily income of producers, from US\$ 0.63 to US\$ 2.70 between 2007 and 2008.
- Improvement in credit conditions: 77 percent of farmers now have access to direct credits with market interest rates of up to 18 percent per year, while in the past only 60 percent had informal credit under usury interest rates of up to 72 percent per year.
- Reduction by 4 to 5 percent in the interest rates of formal credits compared to what they paid in the past.
- Creation of 234 new jobs during the 2008 harvest year, which represented a 59 percent increase over the previous year.

Lessons learned

Success factors

- The presence of lead farmers entrusted with selecting small farmers.
- The formation of agricultural leaders with an entrepreneurial vision who offer remunerated services to smaller farmers.
- Access to credit has been a critical factor for success.

Key takeaways

- The development of new service providers enhances competition while leading to better quality standards in the food products.

Sustainability

PRONACA considers that the Inclusive Business has potential to grow up to eleven times its present size within the initial region. This implies that there is also an important national projection, still to be quantified, with regard to small-scale farmers producing yellow maize in other regions of the country. However, the scalability and scope of this Inclusive Business are yet to be defined, due to the fact that the company is waiting to conclude the three-year pilot plan in order to have the complete methodology that can be applied to new inclusive agribusiness models. In this initial phase, the initiative contemplates training between 60 and 100 lead producers and 650 small-scale producers. Additionally, the company is interested in starting similar Inclusive Businesses with other products.

Photos and quotes

“The promotion of Inclusive Businesses is a direct consequence of the mission of PRONACA, ‘to provide good food by developing the agriculture and livestock sectors.’ PRONACA’s philosophy is to grow and develop together with its suppliers, especially farmers. We are very happy to state that the Inclusive Business program has linked hundreds of small producers of maize to modern technology, credit, and fair prices, improving their production and, therefore, their standard of living.”

Juan Ribadeneira
Executive President
PRONACA C.A

Standard data

- Population involved: 424 farmers by 2010.
- Institutions involved: SNV, PRONACA, the Inter-American Development Bank, the National Financial Corporation (CFN, in Spanish), and the National Bank for Development.
- Investment: The initial phase will last three years and requires a budget of US\$ 216,250 for the training component, which is financed by the MIF and PRONACA, with the former representing a contribution of 52.48 percent or US\$ 113,500, and the latter 47.52 percent, or US\$ 102,750.