

Proyecto Postcosecha América Latina

Summary of 5 market studies in postharvest technologies (Honduras, Nicaragua, Bolivia, Ecuador and Peru) *January 2015*

Introduction

SDC has promoted sale and distribution of metal silo to more than 400'000 rural households in Central America from 1983 to 2009. However, coverage is not yet near saturation and post-production technologies and practices are still needed and relevant since post-harvest losses for grains remain high in Latin America (between 10 and 30% of production). It is acknowledged that reducing postharvest losses is a way to ensure food availability but also presents opportunities to sell surplus in better price conditions as well as increase farmers' incomes. Updated market studies from 2013 show that the demand for post-production technologies and practices is still unsatisfied (240'000 silos required in Honduras and 50'000 in Ecuador). This is an interesting market opportunity especially for agribusiness companies and retailers who traditionally sell inputs. This analysis has motivated SDC to launch a new project in Latin America, the "Proyecto Postcosecha América Latina (PPAL)".

With this project, SDC in partnership with private sector actors aims at increasing income and food security of 130'000 rural families in 5 Latin American countries. Selling post-production solutions for maize and beans to subsistence and low-income farmers will allow agribusiness companies to enter into new markets, while reducing postharvest losses and improving life conditions for small farmers. Replication of the business model will be supported by conducive policies and knowledge management.

Market studies

At the beginning of 2013, market studies were carried out in 5 countries of Latin America (Honduras, Nicaragua, Bolivia, Ecuador and Peru) with the objective to prepare the new postharvest intervention of SDC in the region. The studies were realized by the INNOVABRIDGE Foundation under the lead of Ernst Schaltegger together with national consultants.

The studies focused in analyzing the postharvest sector (in 2013) and the potential for postharvest technologies businesses run by private actors. Data were gathered on the following issues: i) previous support and project related to the topic; ii) analysis of the key stakeholders of the postharvest subsector; iii) relevant policies related to the sector; iv) supply and demand (theoretical and real) of technologies; v) a general economic evaluation (cost-benefit analysis for tinsmiths and farmers); vi) gender aspects.

An executive summary of the studies is available in Spanish. However, the table translated below contains the main results.

Summary of the 5 market studies

Aspects	Honduras	Nicaragua	Bolivia	Ecuador	Peru
1. Background	Start of SDC support in 1980; 250'000 silos disseminated till 2012	Start of SDC support in 1992; 122'000 silos disseminated till 2012	FAO- Holland Project in 1990; Dissemination of 5'000 silos for 2 companies in the last 10 years.	FAO project in 1990, Dissemination of 1'000 silos for families and communities.	SDC and FAO in the 90's. Transfer of 350 Silos.
2. Key stakeholders	Government (INFOP), FAO, NGOs, tinsmiths.	Government (INTA), FAO, NGOs, tinsmiths.	A few NGOs, 2 companies	Government, a few NGOs, 8 tinsmiths.	Ministry of Agriculture MINAGRI & INIA (agricultural research centre)
3. Existing relevant policies	Explicit postharvest policies with weak implementation.	Food security policy but no specific postharvest issues at family level.	Food security policy but no specific postharvest issues at family level.	Food security and postharvest management (in general).	Explicit food security policy.
4. Theoretical demand of postharvest technologies	23'600 silos of 18 qq yearly for a 10 years period ** 1quintal (qq)= 100 pounds=45.4 kg	24'000 silos of 18 qq yearly for a 10 years period	148'000 family-based units to satisfy	18'000 silos of 30 qq yearly for a period of 10 years	30 millions of qq without storage
5. Real demand of postharvest technologies	Theoretical demand could be satisfied with promotion	Theoretical demand could be satisfied with promotion	Till 7'500 silo yearly in a 10 years period	5'000 silos of 30 qq in 5 years (without the Coast)	18'000 silos of 8qq in 4 years
6. Technologies supply	12'000 silos per year elaborated by 50 tinsmiths	6'000 silos per year elaborated by 150 tinsmiths	500-1'000 silos per year with 2 companies	500 silos per year elaborated by 8 tinsmiths	Trained tinsmiths without known production
7. Competitive products	Grain-Pro bags	Grain –Pro bags and plastic barrels	Bags, plastic barrels	Plastic bags	Plastic barrels
8 Cost of the silo	USD 115 for 18 qq silos	USD 107 for 18 qq silos	USD 80 for 6 qq silos	USD 150 for 30 qq silos	USD 65 for 8 qq silos

9. Adoption issues and gender aspects	Lack of training for the good use of the silo; women play a key role in the household food provision	Lack of training for the good use of the silo; women are less prominent than in Honduras in the food provision	Existing silos are well managed; strong interest of the women	Existing silos are well managed; women associations active in the maize commercialization	Strong interest but few evidence of good management
10 Benefits for the users of the silos	18 qq silo: VAN:USD 22 TIR: 214% BC:1.23	18 qq silo: VAN:USD 30 TIR: 24% BC: 1.27	6 qq silo: VAN:USD 23 TIR: 24% BC:1.15	30 qq silo: VAN:USD 216 TIR: 61% BC:1.83	8 qq silo: VAN: USD 13 TIR:27% BC: 1.28
11 Benefits for the tinsmiths	Sales of 120 silos (18 qq) for USD 115, working capital of USD 1'500: VAN:USD 4'198 TIR:77% BC:1.19	Sales of 120 silos (18 qq) for USD 107, working capital of USD 1500: VAN:USD 6'077 TIR: 103% BC: 1.13	Sales of 120 silos (6 qq) for USD 80, working capital of USD 1000: VAN:USD 4'224 TIR: 105% BC:1.12	Sales of 48 silos (30 qq) for USD 150, working capital of USD 1'500: VAN:USD 5'086 TIR: 87% BC:1.23	Sales of 120 silos (8 qq) for USD 65, working capital of USD 1'000: VAN: USD 1'386 TIR: 53% BC: 1.08
12.Conclusions	In Honduras the metal silo is relatively well known and the government keeps promoting it. A new dissemination effort of the technologies (silos and others) looks promising.	Tinsmiths are well organized. A dissemination of the technologies (silos and others) with more private sector involvement is promising.	Despite the small capacity of silos, the business seems viable for users and tinsmiths. The strong interest shown by the women will require a gender-sensitive promotion.	Big gap of capacity of storage especially in the Costal area. Strong interest and capacity of the technologies good management by women.	There are very few existing experiences. However, the potential demand is high. The consultants recommend a selective start in three regions with different grains targeting family-based production units.