Description of the Business Model for Post Production Solutions (PPS) developed by the Project “Postcosecha América Latina” (pilot in Honduras) 

January 2015
1. 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 2014 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 Project Postcosecha America Latina (PPAL) takes into account the above experience, however it is considered as a second generation project which differs from its predecessors in the following aspects: The new project:

a. Extends the concept of intervention to “post-production solutions” (PPS1), including new management techniques to improve harvesting, transport, drying and shelling.

b. Extends the range of technologies beyond the silos including, for example plastic bags specifically designed for tight grain storage (Super Grain Bags) and others.

c. Promotes the participation of private companies to assume the functions of promotion, sales, financial services and after sales services in order to generate sustainable business opportunities and to demonstrate that the business is profitable for private enterprise

d. Includes two complementary components: public policy and knowledge management, which serve as collateral to the main component of promotion and

---

1 “Post Production Solutions” (PPS) refers to the different harvesting, and post harvesting drying and storing- technologies and good practices. PPS include the new silo called “Granero del Campo” (capacity of storage: 817 kg), the Grainpro bag with capacity of a quintal (1 quintal=100 pounds= 45.4 kg), as well as the Grainpro mobile dryer.
sale. This component will give support for the replication of the business model to other countries.

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.

During the preparatory phase, the implementing agency, Swisscontact, together with SDC have selected a private partner in Honduras (Del Campo Soluciones, an agribusiness company) and have launched a market test with a new type of metal silo.

This note is a summary of the business model developed so far which is in the pilot phase and shall be adjusted in the future.
2. The Business Model scheme

The heart of the model is the **Sales and Promotion Business company** (SPB) - in this case, an agribusiness company - who is responsible for the good performance of the business, including:

- Defining the final silo prototype (product and packaging);
- Run the logistics of manufacturing and packaging kits;
- Define and implement the business strategy;
- Operate the different models of sales and promotion;
- Ensuring delivery system operation;
- Ensure the functioning of logistics to assemble the silos through artisans;
- Ensure the operation and delivery of related services and post-sales;
- Tracking, monitoring and impact measurement.

---

2 See summary in annex 1
3 Silos prototypes can be from different sizes or capacities of storing according to the demand
The SPB coordinates with: Sheet Suppliers: Materials and inputs suppliers; Kits manufacturer (Steelworks); Mobile dryers and bags providers (GrainPro).

The SPB is in charge of negotiations, purchases and payments of the sheets, inputs and materials for the manufacture of the silo and its packaging, which are delivered to Steelworks, who is responsible for manufacturing the set of pre-cut pieces and preparing and packing the kit completely. Steelworks delivers the kits packed to the SPB, it moves them to the central warehouse in Tegucigalpa and then to decentralized warehouses and to distribution sites (retailers).

The SPB uses two main sales channels:

1) Directly to final customers: (delivery kits and coordination with accredited artisans to manufacture the silos in the house of the end customer);
2) Indirect through retailers who deliver the kits to customers and coordinate with the SPB the work of the artisans.

The others solutions (bag and GrainPro dryer) are supplied and delivered to the SPB by GrainPro in the form of consignment (the negotiation is yet to be defined).

**Technical assistance flow:** The project implementer (Swisscontact) is supporting the SPB on the following issues: i) design and product development processes, including the commercial strategy aimed at segments that are part of the base of the pyramid and implementation of innovative marketing mechanisms through market test; ii) definition of standards and quality control systems, iii) accreditation of artisans and structuring of the logistics of the silos manufacturing.
3. Financial viability

The total cost for SPB so far is US $ 95.37 / silo. The margins are 26% for the direct channel (users pay US $ 134) and 19% in the indirect channel, with a retail margin of 11%.
4. Financing options (credit) for customers

The company offers 3 options of credit to customers: 1) level monthly payment; 2) after two crops harvests; 3) layaways (user anticipates paying canceling its value in 6 monthly installments, no interest rate applicable). Additionally, the company will establish alliances with financial services providers to strengthen capacities and design financial solutions appropriate for small producers (including women). This shall offer more opportunities to the PPS users to obtain credit.

Credit Options

NB: This note is a translation of an annex of the Project Document prepared by Swisscontact. January 2015.

---

4 Microfinance through cooperatives, farmer associations, rural micro credit banks ("Cajas rurales") or public development bank.
Annex 1 - Summary of the business model of Postproduction Solutions (following the Canvas method).

### Key partners

**Direct:**
- Single Grain producers
- Producer associations
- Rural banks
- Local sales force
- Artisans-silos manufacturers
- Sheets, materials and inputs suppliers
- Kits manufacturers
- Suppliers of others PPS
- Partners (co-sellers)

**Indirect:**
- Rural bank, credit union, other financial institutions
- Boards and community organizations
- Programs and Public Projects and / or Cooperation

### Key Activities

- Definition of final prototype (product and packaging)
- Functioning of the logistic for the assembly of the silos
- Definition and operation of commercial strategy
- Operation of the various forms of sale and promotion
- Operation system deliveries
- Operation of manufacturing logistics and packaging kits
- Operation after-sales services
- Follow-up, monitoring and impact measurement

### Key Resources

- **Human:** i) mixed force sales staff (full time and part-time), ii) accredited artisans iii) marketers with experience in business strategies for social enterprises, and iv) with experience in managing databases and information systems
- **Physical:** warehouses, transport logistics, mobile phone with internet access, information platform, materials for demonstrations
- **Social:** Network suppliers of sheets, kits, inputs and packaging materials. Network of local vendors (commission-paid, evangelist type). Relationships with community leaders and local authorities.
- **Financial:** resources for granting credit service
- **Intellectual:** brand and patent of the silo, compliance certifications and formal accreditations of artisans.

### Value Propositions

**Product:**
- Metal silo, made of pre-cut sheets and tin, that meets quality standards, with a more practical and functional sealing system, secured and manufactured in the customer house by accredited artisans.

**Related services:**
- Financing
- Training
- Post-sales service maintenance and repair
- Access to information on product pricing and weather alerts

**Benefits:**
- Protect your investment and the health of your family, keeping your harvest free of pests and fungi.
- Save, storing your grain at harvest time and avoiding buying in times of scarcity at higher prices.

### Customer Relationships

- Personalized attention through demonstrations about the service, use, handling, utility and benefits of the technology.
- Continuous communication through text messages to cellphones (weather alerts, market prices, etc.)
- Annual visits for silo maintenance during the guarantee period.
- Training sessions on management and grain drying.
- Quarterly monitoring through visits (random customers) to check the proper use of the silo and right handling of the grain.

### Customer Segments

Two market segments:
1) 120,448 rural households subsistence grain producers, of which 64% are willing to buy a silo for the first time for an average of 1.047 silos / household (total: 86,151) and 36% are willing to repurchase for an average of 1.116 silos per household (total: 42,592). Total estimated demand in this segment: 128,742 silos.

2) 97,506 rural households surplus grain producers, of which 65% are willing to buy a silo for the first time for an average of 1.151 silos / household (total: 73,500) and 35% are willing to repurchase for an average of 1.25 silos per household (total: 42,060). Total estimated demand in this segment: 97,506 silos.

### Channels

1. Direct: the sponsoring company delivers the product to the customer through existing trade routes. For new routes, delivery is made in a minimum volume of 5 silos.
2. Indirect: the product reaches the end customer through deliveries made by retailers partners. In both channels, logistics and coordination for the manufacturing of the silo is in charge of the business company.

### Cost Structure

<table>
<thead>
<tr>
<th>Direct costs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cost of materials and inputs: US$57.18</td>
</tr>
<tr>
<td>3. Installation of the silo: US$25.64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indirect costs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Commercial strategy (advertising-promotion): N.D.</td>
</tr>
<tr>
<td>2. Administration: N.D.</td>
</tr>
</tbody>
</table>

### Revenue Streams

1. Price per silo paid in cash or in the form of layaways will be US $ 134.
2. Price per silo fees paid credit leveled for six months will be US $ 140.76.
3. Price paid by credit after two crops harvests will be US $ 148.77.
4. Price per silo sold to commercial partners will be US $ 119.18.
5. It is foreseen revenues from advertising sales that will be incorporated in the sticker of the proper use of the silo.
Annex 2 – Examples of promotional material