

STRENGTHENING THE COMPETITIVENESS OF ORGANIC PRODUCERS IN ANDEAN MICRO-WATERSHEDS

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This case study assesses the project "Strengthening the Competitiveness of Organic Producers in Andean Micro-Watersheds", one of more than 40 projects implemented in the Latin American and Caribbean Region, within MIF's "Linking Small Producers to High Value Agriculture Markets" thematic work area. These projects provide technical assistance, technological solutions, and access to finance to organized farmer groups (cooperatives, social enterprises and others) whose products have proven market demand in a variety of sectors and industries such as fisheries, horticulture, dairy, coffee, cocoa, and stevia, to name a few.

The CGGC – Duke University researchers assessed five of these projects using a four-pillar framework designed to identify key areas that improve sustainable inclusion to value chains. Each case study in the series synthesizes common challenges and best practices implemented by MIF's partner agencies, while providing valuable insights for ensuring successful outcomes and long-term impacts in inclusive value chain projects.

This case study is part of a more comprehensive study titled "Assessment of Five High-Value Agriculture Inclusive Business Projects" which encompasses other four case studies (available also in Spanish):

- ▶ Strengthening the competitiveness of the Stevia Value Chain in Paraguay.
- Development of Micro and Small Rural Apicultural Producers in Nicaragua & Honduras.
- ▶ Upgrading to Organic Cocoa Cultivation in Peru.
- Supporting the Competitiveness of Central American Coffee.

Other reports that complement the assessments are (available only in English):

- Inclusion of Small and Medium-Sized Producers in High-Value Agro-Food Value Chains.
- ▶ Basic Principles and Guidelines for Impactful and Sustainable Inclusive Business Interventions in High-Value Agro-Food Value Chains.
- ▶ Recommendations to Enhance IDB-MIF Interventions for the Inclusion of Small- and Medium-Sized Producers in the High-Value Agro-Food Chains.

"STRENGTHENING THE COMPETITIVENESS OF ORGANIC PRODUCERS IN ANDEAN MICRO-WATERSHEDS"

The present case study "Strengthening the Competitiveness of Organic Producers in Andean Micro-Watersheds" was elaborated by Penny Bamber and Karina Fernandez-Stark from the

Center on Globalization, Governance & Competitiveness (CGGC) of the Duke University in collaboration with Alejandro Escobar, Anabella Palacios, Yolanda Strachan, Dora Moscoso and Ana Castillo members of the thematic work area "Linking Small Producers to High Value Agriculture Markets" of the Multilateral Investment Fund, a member of the Inter-American Development Bank (IDB) Group. This report is part of a group of studies that analyzed some of the MIF projects to identify best practices to successfully integrate small producers to national and international value chains.

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The views and interpretations expressed in this report are those of the authors and do not necessarily represent the views of the companies mentioned, the individuals interviewed or the Multilateral Investment Fund (MIF). The authors welcome comments and feedback at penny.bamber@duke.edu & karina.stark@duke.edu.

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INTRODUCTION

The key to sustainable inclusion in any value chain is competitiveness; that is, the ability to provide the desired quantity and quality of a specific product in a more economical and timely manner than other suppliers. In high value agricultural markets, improved cold chain management and transport have facilitated the expansion of global trade, and now producers must compete with suppliers from all over the world. This requires continuous improvements in productivity and quality to meet product specifications of end buyers, cost-efficient market ready packaging, timely logistics, and, of course, economies of scale.

→ FOUR-PILLAR MODEL FOR VALUE CHAIN INCLUSION

Small- and medium-sized producers, in particular, face constraints that limit their competitiveness and prevent their participation in the value chain. We identified four major pillars that every intervention should include to raise the competitiveness of smallholder farmers in order to include them in a sustainable way in the national or international value chain.

1. Access to market:

Many small producers do not have the required contacts to establish relationships with potential buyers due to broad geographic, cultural and educational factors, amongst others. Inclusive business interventions must fill an important role of establishing a connection between producers and buyers. This connection requires educating lead firms about the business potential of sourcing from small producers, as well as facilitating interactions until the small producers are in a position to sustainably manage

the relationship independently. Generally, this is the weakest link in any value chain intervention.

2. Access to training:

While many small producers may have worked in agriculture their entire lives, specific training is often required in order to improve productivity and product quality, introduce new technologies and plant varieties, and facilitate compliance with food safety and other certification requirements that govern entry into the national, regional and

international value chains. The training component should include technical education, entrepreneurship, financial literacy and any other social/soft skills necessary to help insert producers in the value chain. In addition, peer knowledge transfer components; such as field visits to successful farms and demonstration plots should be included. These can be powerful tools for teaching and motivating producers.

3. Coordination and collaboration building:

Because small producers need to achieve economies of scale in order to compete in the marketplace, it is important they collaborate and work together. Additionally, and perhaps equally as important, collaboration facilitates the exchange of ideas to manage common problems, reduces information asymmetries in production and builds social capital that empowers producers to sell their products in more sophisticated markets. However, producers often fail to selforganize formally. Producers thus often need the encouragement and support of external actors to appreciate the payoffs of collective action and establish themselves as formal, legal organizations. These horizontal linkages facilitate producers' connections with other upstream and downstream value chain actors, such as input and service providers.

4. Access to finance:

Entry into the value chain requires certain investments such as infrastructure, equipment and obtaining certifications. Small producers, however, often face liquidity and credit constraints as they have no access to formal finance channels. In addition, they often lack the necessary financial literacy to apply for

or manage potential loans. These limit their potential to make the required investments. These credit constraints have been found to prevent small producers from investing in necessary equipment, such as irrigation systems, greenhouses or cold storage, to achieve productivity improvements, to develop unused portions of their land or to upgrade into higher value products, thereby limiting their potential to participate in coordinated value chains. Interventions can play an important role in reducing information asymmetries and helping the banking sector to create appropriate, yet profitable, financial instruments to meet the needs of this group.



▶ PROJECT DESCRIPTION

The project focused on improving the competitiveness of organic¹ fruit and vegetable producers in the Huánuco region of Peru. The project consisted of four components: (1) improve commercialization and supply of organic produce, (2) validate the Participatory Guarantee System (PGS), a regional, multistakeholder organic certification process and develop manuals for distribution in other regions, (3) improve both productive and business management skills of producers and (4) strengthen networks and collaboration and cooperation. The projects benefitted 415 organic fruit and vegetables producers certified by the PGS; 100 of these producers also received organic certification granted by a third party organization since PGS was not valid in national supermarkets. These producers with third party organic certification were able to enter into the national value chain, selling a small amount of their produce in supermarkets in Lima. The remaining 315 producers participated in the local value chain selling their organic products in a local farmers' market and were able to access higher price premiums thanks to the PGS certification. The amount sold through this channel is estimated to increase in 2012. The 415 producers created a consortium to market both fresh and processed organic products. As they still do not have the relevant management skills to independently operate the consortium, the producers still need the support of IDMA. Funding for this project was provided from four sources (1) Inter-American Development Bank (IDB), (2) Instituto de Desarollo y Medio Ambiente (IDMA), (3) Regional Government of Huánuco and (4) Fondo de las Americas.



¹ For the purposes of this case study, the word organic is used to describe all produce that is cultivated and handled without the use of agrochemicals. Where these production processes have been monitored and certified by independent parties, these products will be differentiated as certified organic products.

■ LESSONS LEARNED

- ▶ The project failed to consider some key constraints that impeded small producers' successful entry into the value chain. Specifically, limited access to finance inhibited producer expansion and improvements to productivity and diversification of crops, while poorly developed access to market potentially extended the necessary length of the project, as producers did not see economic returns of their participation until late in the project.
- ▶ This project should have addressed sustainability in the early stages of the project design. A clear exit strategy should be determined ex-ante. In particular, installing strong entrepreneurial skills within the producer groups was not incorporated into the project. Producers were not provided sufficient tools to become independent economic actors capable of managing their own businesses.
- Although not its original intention, the implementation of the PGS proved to be a strong driver of fostering public-private coordination and collaboration and strengthened each of the producer groups. By the end of the project, there was a high level of social capital and empowerment amongst producers. Producers had established clear objectives to improve their production, create economies of scale by recruiting new producers and target new markets outside the region. However, coordination and collaboration with buyers in the value chain was missing.
- Training group and association leaders and offering internships were particularly successful tools to motivate producers. This approach facilitated the strong development of technical and social skills.

OVERALL ASSESSMENT OF SUSTAINABLE INCLUSION

SUSTAI NABLE INCLUSIVE-NESS

- ▶ The intervention identified a product group in which the participants could compete (organic) and helped them to improve their productivity and horizontal coordination to achieve economies of scale. The producer associations established were strong and were in a position to upgrade in the future.
- ▶ The product was environmentally friendly and the project focused on including both women and children in the initiative.
- ▶ The key challenges to sustained inclusiveness lay in economic sustainability: the lack of access to finance and direct access to buyers meant that producers continued to rely on the executing agency at the end of the project and were not yet ready to be independent.

MEDIUM



■ INSTITUTIONAL ARRANGEMENT

IDMA was the executing agency of this project, playing a key role in facilitating producer organization into product specific associations, as well as an umbrella company to collectively commercialize their products. The PGS model (see box) was intended to certify organic products. However, buyers in Lima did not accept this type of certification, as it is not yet recognized by the national government. For that reason, third party certification was necessary. PGS, however played a crucial role in organizing not only producers, but also other key stakeholders in this project.

Project Stakeholders

ORGANIZATION	ROLE	DESCRIPTION
IDMA	Executing agency and Co-Funder	IDMA is a private non-for profit organization founded in 1984 to promote sustainable development. IDMA has worked with local producers for over 20 years and has substantial knowledge regarding the principal needs of producers.
Producers	Beneficiary	415 producers. These producers presented varying levels of development; one group was already selling their production in the local farmers' market and/or to intermediaries. Another group was producing for subsistence. Many of these producers live ir remote locations.
Consortium	Company created by beneficiaries	The Consortium was created in 2011. It owns a collection center in which produce is received, graded, packaged and processed. This center was built with resources from FONDAM. (Neither MIF nor local government resources could be used to build this essential infrastructure.)
ADPE	Beneficiary	ADPE is the Organic Producers Association. It has 170 members with PGS certification and sells its products in an organic farmer's market in Huánuco.
Organic Granadilla Producers Association	Beneficiary. Producers in these associations received third-	Pre-existing organization that sought out IDMA because they wanted to commercial ize their products.
Organic Avocado Producers Association	party organic certification to sell products to supermarkets in Lima (By 2012, just 5% of their	20 members
Organic Gooseberry Producers Association Native Potatoes	total production was sold in this manner).	57 members who sell their primary grade products to supermarkets in Lima and the
Producers Association		rest of the production to intermediaries in Huánuco.
Processed Products Association	Beneficiary	12 members who produce jams, conserves and sell them in eco-markets, shops, and to different institutions.
MIF	Co-Funder	The MIF team in the IDB Country Office in Peru supervised this project that began i May 2008.
PGS Regional Committee	Validate organic production	PGS was established in the region to certify organic production of low-income producers adding value to their products for sale in the organic farmers' market in Huánuco. Committee participants: IDMA, producers, regional government and local consumers association.
Regional Government- Huánuco	Additional Funding	The regional government provided resources for training purposes (salaries to train ers and office supplies). Government representatives also participated in the Regiona PGS committee certifying organic production on farms. In 2008, PGS was recognized as an organic certification at the regional level (Act No. 29,227) allowing producers to sell their products as organic within the region.
FONDAM	Additional Funding	Provided resources to build the collection center.
Organic Consumers Association-Huánuco	Pressure group	Civil society group dedicated to raising the awareness of organic production and consumption. They are represented on the Regional PGS committee.
Servicio Nacional de Sa- nidad Agraria (SENASA), Ministry of Agriculture, Perú	Public Regulatory Institution	SENASA does not allow the sale of PGS certified products under the organic label.

DESCRIPTION OF THE VALUE CHAIN

Fruit and Vegetables Value Chain - Summary Project Intervention

Program Beneficiaries		415 HUÁNUCO, PERU				
Project Intervention Points	\downarrow	\downarrow		\downarrow		
Value Chain Segments	Inputs	Production	Selection & Packing	Processing	Distribution and Marketing	
Key Actors	IDMA (Technical assistan)	Small producers: Average – 1-2ha	Producer Consortium Facilities	Producer Consortium Facilities	Local Farmers' market Supermarkets in Lima	
Inputs/ Outputs	Inputs Seeds, Technical assistance, Organic fertilizer Contracts, Certification	Outputs Wide range of ecological (GS-certified organic) fruits & vegetables	Outputs Small packages of organic avocados, nadillas, cape gooseberry and native potatoes	Finished Outputs: Jam and juice pulp	Buyer's brand Own brand	
Key Markets		Key Markets: Huanúco Farmers Market	Key Markets: Big supermarkets in Lima	Key Markets: Farmers' markets		

Source: Authors.

The fruit and vegetable value chain illustration above shows that this project attempted to intervene in several different segments of the chain. In this project both farmers producing for the local Huánuco market and those with third-party organic certification needed to improve their competitiveness² level to effectively and directly enter the local and national market channels and to bypass the lower prices obtained from intermediaries. Several value chain bottlenecks were addressed such as: product image, product certification, quality, productivity, value-added processing of second and third grade products and developing packaging and branding tools. There is still much work to be done with respect to productivity and product quality improvements. The consortium collection center operates under capacity and the low level of sales impedes investing in productivity and quality. Other pending tasks include expanding the buyer portfolio for produce and finding a market for the processed products.

² During the project design stage, it is imperative to perform a diagnosis of the beneficiary's level of competitiveness using a market study as benchmark. Criteria for competitiveness diagnosis include: Productivity, product/service quality, standards and certifications, produce/service image, packing, logistics, economies of scale, necessity to add value to the product/service, assess if the product/service is suitable for SMEs commercialization. See introductory note for further information.

MODEL FOR VALUE CHAIN INCLUSION

Small- and medium-sized producers are often excluded from the value chain because they face resource, skills and market knowledge constraints. As noted before, four major constraints found to affect the success of agro-food inclusive business projects are access to finance, access to training, access to markets and coordination and collaboration amongst producers and other value chain actors. Below we discuss how each of these constraints was addressed in this project.







Assessment of the Four Value Chain Inclusion Pillars in this Project

Access to Finance

No finance component was included in this project.

- ▶ Producers do not have access to formal financial systems.
- ▶ Cash flow is complicated due to payment delay from buyers (supermarkets pay 45 days after products were received).
- ▶ Capital is required to buy inputs and also to increase productivity (for example, better infrastructure).

Coordination & Collaboration Building (horizontal and vertical)

This is a strong pillar in the project.

- ▶ For PGS certification, producers were organized in community groups with a lead producer. PGS institutionalization had several positive spillovers including producer empowerment, development of social capital and strong public and private partnership.
- Previously, some producers were organized in associations, but this project allowed the creation of a consortium open to more producers.
- In order to reach effective collective action and ensure sustainability, both social capital and capable commercial agents were necessary. This had not yet been fully achieved by the end of the project.

Access to Training

- ▶ Training was a major component of this project and was very successful with producers mastering skills taught.
- ▶ Technical training focused on organic production and productivity improvements. All producers obtained PGS certification and 100 received third party organic certification.
- ▶ Entrepreneurship training on commercialization and costs.
- Interpersonal skills training focused on the importance of collaboration and working together effectively.
- ▶ Training sessions were practical, with area experts for each subject. The most effective training method was through "pasantias" in which producers traveled abroad to see different examples of successful entry of small producers into the value chain.

Access to Market

- Market access was not well planned. Needed the help of an influential organization.
- ▶ A key assumption of the project was the validation of PGS certification to sell organic products within Peru. However PGS was only validated at the regional level. PGS was not validated by buyers in Lima and they had to pursue a third party organic certification.
- ▶ 100 producers obtained the organic certification to sell their products in Lima; however, they are selling just 5% of their production.
- ▶ The growth of the local market in which producers sell their ecological products at the farmers' markets was an important source of demand.

"Participatory Guarantee Systems (PGS) are locally focused quality assurance systems. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange."

▶ PROJECT RESULTS

RESULTS IMPACTS

- > 415 producers were certified under PGS.
- Out of these 415 producers, 100 were certified as organic producers by a third party organization.
- Producers formed a consortium to commercialize their products.
- The 100 organic certified producers will sell all their production to a supermarket in Lima in 2012.
- Producers established their own collection center.
- New producers are being invited to participate in the consortium.

- Increased investment in education for children
- Sales in the farmers' market in the local city grew.
- Producer empowerment
 - Producers feel proud of their achievements selling their products in Lima
 - Women also participate in the project;
 usually they are in charge of selling the products in the farmer's market.
- Increased sense of responsibility and commitment by the producer.



"We 've learnt that we have to produce what the market demands. We have been learning, learning, and learning about quality."

Victoriano Fernandez, President of the Native Potato's Association.

SUSTAINABLE VALUE CHAIN INCLUSION OF SMALL PRODUCERS: AN ASSESSMENT

This project has advanced in terms of incorporating small producers from the Huánuco region in the value chain; however, the producers still do not have the skills to run the consortium without external support. According to the inclusion model, only two pillars were fully included in this project:

- Producers had a comprehensive **training** that included technical, entrepreneurial and social skills. The format of the training was didactic and the scholarships to learn from best practices in other countries were extremely motivational for producers.
- During the project, substantial producer **networks** were developed, leveraging social capital to improve collaborative initiatives. Collaboration and coordination with other actors of the chain still needs to be incorporated into the business model.
- The access to **market component** was not well conceived in the design stage, and thus it was not successful in the implementation phase. Buyer commitment to purchase the production was only achieved at the end of the project. Innovative approaches to commit the buyers need to be included from the beginning of the project.
- Access to finance was not included in the project design and was a **drawback**, as producers did not have the capital to improve or expand their production.

Positive elements that facilitated the project included:

- ▶ High demand for organic products.
- ▶ Producers were already producing without the use of agrochemicals.
- ▶ The executing agency had been working with the beneficiaries for a long time. High level of trust.
- ▶ Female empowerment. The farmers' market in Huánuco is mainly run by women. Additionally they run the processing activities in the collection center.

Some challenges limited the success of the project:

- ▶ Low level of development of the beneficiaries. Some of them were producing at a subsistence level with no sales experience and many of them previously did not belong to any group or association. They required more time to convert the producers into economically sustainable, independent participants of the value chain.
- Poor infrastructure. Some beneficiaries needed to walk for hours to deliver their produce.
- ▶ The assumption that the PGS would be an accepted standard for organic products was misguided. Thorough research of the standards within sophisticated fruit and vegetable value chains would have revealed the importance of well-recognized certifications for the chain.

This project is remarkable as poor producers were able to commercialize clean, packaged, organic produce to leading supermarkets in Lima, Peru. Beneficiaries however, continue to need external support to run the consortium independently. A comprehensive assessment is provided in the table below.

▶ PROJECT BUDGET

The initial budget for the project was US\$ 662,920, with US\$397,990 provided by MIF and US\$ 264,930 provided by IDMA. Additional funds were provided by the Regional Government of Huánuco (Training and office suppliers) and FONDAM (collection center)



"My life has improved. In my family, there hadn't been a single professional before working with IDMA. Now, three of my children are professionals. Thanks to IDMA my children have been to school."

Lucio Calderon, President of Ecologic Producers Association

SUSTAINABLE VALUE CHAIN INCLUSION OF SMALL PRODUCERS IN THE GLOBAL CACAO CHAIN: AN ASSESSMENT

	CRITERIA	KEY POINTS	ASSESSMENT
SELECTEDVALUECHAIN	Target Product	Organic produce is well suited to small and medium production due to hig labor intensity and higher margins resulting from lower input costs (on farm o ganic fertilizer) and a price premium. Commercial viability: Local and growin demand for organic product in national supermarkets. Organic certification essential.	
SELECTE	Beneficiaries	This was the first time that the beneficiaries attempted to sell their produce outside their territory and, for some of them it was the first time they had sold their crops. Many of them were not associated prior to the program.	•
	Inclusion four pillars	There were some missing components in the project design such as access to finance and access to market that limited the inclusiveness.	•
	Competitiveness	Prior to the program, producers needed to improve their productivity, product quality, economies of scale and gain access to the market. Through the project, they were able to improve market linkages – although they still needed support in this aspect, they developed minimum economies of scale to supply the Lima markets and they improved productivity and product quality by incorporating new techniques taught by experts. However, they still needed to improve the high grade percentage of their crop. Risks: Low level of producer education and low economic development in Huánuco. They lacked administrative skills to run the consortium. Infrastructure was not well developed and many producers had to walk for hours in order to deliver their products.	•
INCLUSIVENESS	Upgradeability/ Potential to add value	Organic product range can be expanded to include other fruits and vegetables in the future, while second and third grade products can be used for processing, creating value-added products such as jam and juice concentrates. A processing facility was built at the consortium's pack house for this purpose.	
	Economic sustainability	At the end of the project, a financial component and strengthened access to market still needed to be incorporated into the value chain intervention to achieve sustainability. There was a strong need to generate profits in order to hire managerial personnel and sustain the initiative. Producers were not capable of managing the consortium.	0
	Social sustainability	The project has included two key aspects: Gender Component: Empowerment of women; women were beginning to be recognized as important actors in commercialization and also as part of the decision-making process. Youth & future professionals: Families were investing in their children's education because they want to professionalize their farm activities in the future with their help.	
	Environmental sustainability	Organic cultivation has important environmental benefits, as it avoids excessive use of the land and agro-chemicals. Additionally, beneficiaries have a diversity of crops in their farms that help the soils richness.	
IMPACT	Spillovers/ impact	This project has several positive impacts: Many beneficiaries had never commercialized their products; this project has brought producer empowerment. Producers feel proud of their achievements selling their products in Lima. Additionally, families increased their income, and extended education for children. Women also participate in the project; usually they are in charge of selling the products in the farmer's market. New producers are invited to participate in the consortium	
	Potential for replication	Aspects of coordination and collaboration both amongst producers and between producer groups and other value chain actors were strong. This model could be replicated for other projects.	•

Weak (

Strong

Medium (



