

The Participatory Market Chain Approach (PMCA): from the Andes to Africa and Asia

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The PMCA is a flexible approach that engages smallholder farmers, market agents, researchers, and other service providers in a collective process that identifies and exploits potential business opportunities that can equitably benefit the diverse actors in a market chain. This approach was developed and first applied in the Andes, to increase the competitiveness of potato market chains and improve the livelihoods of small farmers. Subsequently, through South-South knowledge sharing, the approach has been introduced and enhanced by local organizations focusing on different market chains in different regions. The PMCA is most effective when implemented as part of a multi-pronged strategy that includes support for farmer organizations, business development, policy change, and public awareness. The International Potato Center (CIP) has not only spearheaded development of the PMCA but has supported the development of local capacities needed to facilitate successful innovation processes. Both the approach and an emerging network of PMCA practitioners around the world have been enriched by South-South knowledge exchange and feedback from field experiences.

Introduction

Agriculture is changing rapidly in developing regions in response to a variety of factors including rising incomes, the information technology revolution, the spread of supermarkets and the integration of markets for agricultural products. Traditional markets are often characterized by distrust, uncertainty and high transaction costs, and small farmers tend to find themselves at a disadvantage due to their limited access to market information, services, technology and capital. Similarly, market intermediaries can find it difficult to acquire dependable supplies of high-quality agricultural products from small farmers – products that are needed to satisfy domestic as well as foreign supermarkets. This is particularly true for perishable crops, such as potatoes, which are grown on small farms in isolated mountainous areas.

Farmer associations or cooperatives can play useful roles in assembling produce, financing farm operations and aiding small farmers improve their production practices. However, innovations in market chains, including the development of new products and improvements in relationships and information flows are also much needed.

This innovation brief highlights experiences with an approach for fostering pro-poor innovation in market chains known as the PMCA. This approach – originally developed to increase the competitiveness and improve livelihoods of small-scale potato producers in the Andes – has also proven to be useful in other market chains in other parts of the world.

Development of the PMCA

From the late 1990s, the *Papa Andina* regional program has worked to strengthen the capacity of Research and Development (R&D) organizations in Bolivia, Ecuador and Peru to increase the competitiveness and improve the livelihoods of small potato farmers. In 2002, CIP social scientists, *Papa Andina* and the Project for Potato Innovation and Competitiveness in Peru (INCOPA Project) began experimenting with a participatory approach to stimulate agricultural innovation known as Rapid Appraisal of Agricultural Knowledge Systems (RAAKS). This approach brings together diverse stakeholders in a participatory process that stimulates social learning, builds trust and fosters innovation. *Papa Andina* employed RAAKS to bring small-scale farmers together with market chain actors, researchers and other service providers, to explore market opportunities.

The involvement of traders, food processors, and chefs was a radical departure from earlier participatory R&D efforts, which were limited to researchers and farmers. Many researchers felt – and some still do – that working with market agents could distract researchers from their proper focus on resolving farmers' production problems.

Additional steps were added to RAAKS for new product development, and a new approach emerged: the PMCA. In 2003, Bolivian members of *Papa Andina* began working with the PMCA, and over the next few years, the approach was further developed and documented (Devaux *et al.*, 2009).



Papa Andina Innovation Briefs

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◆ Main features of the PMCA

The PMCA engages individuals who make their living from a market chain (known as market chain actors) as well as the public and private service providers (such as researchers, credit providers and development professionals) in a facilitated process in which market opportunities are identified and exploited. A *PMCA User Guide* presents a structured process with three phases implemented over 12 – 18 months (Figure 1).

PHASE 1. Getting to know market chain actors and their activities. The PMCA is initiated by a R&D organization that takes the lead in selecting the market chain on which to work, identifying potential R&D partners and carrying out exploratory, diagnostic research on the market chain. This phase, which may take two to four months, concludes with a public event to discuss the survey results, generate ideas for possible innovations, and motivate a range of market chain actors and service providers to participate in Phase 2.

PHASE 2. Joint analysis of potential market opportunities. Individuals from participating R&D organizations facilitate groups to explore and analyze potential market opportunities. From six to ten meetings may be required along with technical or market studies. A second public event is held at the end of Phase 2, to discuss the prioritized business opportunities and to encourage individuals with appropriate knowledge and complementary experience to join Phase 3.

PHASE 3. Joint development of innovations. During this final phase, groups focus on developing, market testing, and launching specific innovations. This may require work on processing, packaging, labeling or branding. The PMCA exercise closes with a third public event where the developed innovations are presented to a wide selection of stakeholders including political officials, potential donors, policy makers, decision-makers from the private and public sector and the media.

Implementation of the PMCA can deviate from the neat sequence of steps outlined above. While some groups have disbanded before producing any useful innovations, others have moved ahead and launched profitable innovations during Phase 2. Some groups have also continued to interact and generate innovations years after the conclusion of the PMCA exercise. The following sections illustrate three concrete examples of the PMCA in action.

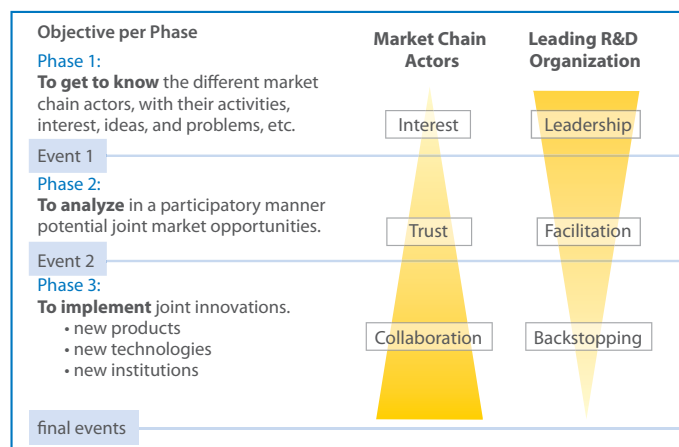


Figure 1. The three-phase structure of the PMCA methodology.

◆ Peru’s “native potato revolution”¹

Two cycles of the PMCA have been implemented in Peru. The first application focused on marketing of improved potato varieties; the second cycle focused on marketing native potatoes. Participants in the exercises included not only researchers, ministry officials and typical market chain actors, but also chefs and supermarket

managers. This was the first time that such a diverse group had been brought together to collaborate on options for improving and promoting Peru’s potato sector. The “new actors” brought fresh energy and novel ideas to discussions that were previously dominated by R&D professionals.



Figure 2. T’ikapapa: Peru’s first brand of gourmet native potatoes.

The first PMCA application resulted in Peru’s first brand of selected fresh potatoes, supplied to Lima’s wholesale market under the name, *Mi Papa* (“My Potato”). Subsequently, a new organization, *CAPAC Peru*, was established to promote the marketing of high-quality local agricultural products, including *Mi Papa*.

The second PMCA application resulted in two new products made from Peru’s native potatoes. *T’ikapapa* was released as the first brand of gourmet native potatoes sold in a Peruvian supermarket. Soon thereafter, *Jalca Chips*, also produced from native potatoes, were available on grocery store shelves. Both products have since been replaced by improved “copy-cat” innovations, and today more than 20

similar native potato products have appeared on the market, some of which are exported.

In addition to new products, important ideas emerged for policy initiatives and public awareness campaigns during the second PMCA cycle. Perhaps most notably, Peru's *National Potato Day* was established in 2005 and has been celebrated annually since then. The Minister of Agriculture established a special commission to organize this event, including participants from the PMCA exercise. Today this commission continues to function as an informal network, promoting the potato sector in various ways. For example, it supported efforts by Peruvian government officials in their request that the United Nations declare 2008 as the *International Year of the Potato*. When this proposal was accepted, the commission spearheaded numerous creative activities in Peru for this year-long celebration.

The combination of market-chain innovation, policy changes and public awareness has contributed to change the image and perception of native potatoes in Peru. Previously thought of as a subsistence staple food for poor farmers in the mountains, with little future in market-oriented agriculture, native potatoes are now recognized as a nutritious Peruvian delicacy worth a premium in urban markets and gourmet restaurants. Consequently, there has been a dramatic expansion in demand for native potatoes in Peru and there is growing interest in these potatoes abroad. In the first decade of the new millennium, the volume of native potatoes sold by farmers increased by more than 70%, farm-gate prices increased by 55% and the value of native potatoes sold increased by more than 150% (at constant prices of 2011).

¹The Peru case is based on Papa Andina Innovation Briefs 2 and 3.

◆ Building capacity for market-chain innovation in Uganda²

In an effort to facilitate South-South collaboration, the Andean experiences with the PMCA were shared with Ugandan R&D professionals and market chain actors in 2005-2007, and the approach was applied on the potato, sweet potato, tomato and hot pepper market chains in Uganda. Eight women from Ugandan R&D organizations led the application of the PMCA and facilitated the various group meetings. PMCA specialists from Lima, Peru, trained, coached and supported the Ugandan team throughout the process.

Reviews of the Ugandan work in 2007 and 2011 indicated that the PMCA permitted R&D professionals and market chain actors to collaborate in developing mutually beneficial market chain innovations. The PMCA stimulated the development of inter-personal networks that span the public and private sectors, enhancing the capacity for innovation in agricultural market chains. The PMCA triggered commercial, technological and institutional innovation processes, some of which continue until today. Among other innovations, attractive new packaging was developed for a potato chip product, a new sweet potato variety was introduced to supermarkets, and a new brand of hot pepper paste was marketed. After completing the PMCA exercise, "second-generation" innovations have emerged, including a new brand of high-quality fresh hot peppers on local markets and dried hot peppers for exportation. As a result of the innovations triggered by the PMCA, farmers, processors, market agents and, in particular, women, were able to increase their incomes and, in some cases, acquire productive assets, including land. The PMCA facilitators upgraded their communication and facilitation skills and learned substantive new skills about agricultural marketing and innovation processes. Most importantly, they acquired and benefited from a new approach to R&D that fosters pro-poor innovation.



Several individuals and organizations have incorporated elements of the PMCA into their activities. The Ugandan PMCA team identified three ways to improve upon future applications of the PMCA: develop more adequate and sustainable funding and institutional arrangements for innovation facilitators; provide business development services to entrepreneurs with emerging innovations and prototypes after completing the PMCA; and provide support for small farmers to improve their capacity to respond to changing market demands.

²The Uganda case is based on Papa Andina Innovation Brief 4.

◆ The PMCA, business development services and farmer business schools in Indonesia³

From March 2008 to June 2009, as part of a project designed to improve the linkage of small vegetable farmers to markets, the PMCA was applied in market chains for fresh and processed potatoes in West Java, Indonesia. A PMCA specialist from CIP provided training, coaching, and support for a team of local implementers. The team was coordinated by a marketing economist based in CIP's office in Bandung, Indonesia.

After formal completion of the PMCA exercise, the project team provided business development services for innovators. Drawing on the PMCA and on a successful extension approach known as the "Farmer Field School", the project team developed a "Farmer Business School" (FBS) for strengthening the entrepreneurial and business development capacities of farmers and their organizations. The FBS, which involved group-based action by farmers,

complements the PMCA by facilitating relatively quick and simple improvements in farmers' enterprise management and marketing. A 2011 review of the experience indicated that the PMCA triggered innovation processes in which both women and men successfully developed and marketed a number of new potato-based products. This said, the most prominent innovators were young individuals from relatively well-to-do families and who were acknowledged for their leadership in their communities. Among the success stories: one individual successfully developed and marketed several flavors of spicy potato chips and other potato-based snack foods; another innovator launched a new brand of packaged French fries. This individual also collaborated with local farmers to develop a local farmer's group and establish new marketing arrangements for supplying a modern food market with sorted, graded and washed potatoes.

In the Indonesian case, the PMCA strengthened relations among market chain actors and between them and agricultural researchers and other service providers. These improved relations contributed

to innovation processes and created an environment conducive to future collective action for market chain development. The Indonesian experience highlighted the significance of providing business development services after completing the PMCA, for example, strengthening farmers' organizations and business skills. Two issues are currently being addressed by the project team: mainstreaming and scaling-up operations, and documenting and assessing outcomes and impacts of the approach.



³The Indonesia case is based on Papa Andina Innovation Brief 5.

◆ Lessons

The PMCA represents a new way to do agricultural R&D. Rather than undertaking research and then attempting to transfer the results to farmers, the PMCA brings together the complete range of relevant actors – including farmers, market agents, processors, researchers and service providers – to set priorities and jointly develop innovations in the context of the market chain. This represents a radical departure from the traditional “pipeline” model of agricultural innovation.

Innovations emerge over time, often in unexpected ways. The PMCA triggers innovation processes, which often continue and evolve long after the PMCA has formally ended. Second- and third-generation innovations are frequently more important than the first ones developed during the PMCA exercise.

The PMCA is most effective when it is applied together with other measures that address policy and institutional issues. It is important to complement the PMCA with support for farmer organizations, business development, policy changes and public awareness.

The Andes has served as an effective laboratory for developing an approach with global applications. Developed to address local problems in the Andes, the PMCA has been successfully adapted, applied and improved upon in Uganda, Indonesia and elsewhere. South-South knowledge exchange has helped introduce the PMCA to other regions and also to enrich the approach.

CIP has played useful roles not only in developing the approach, but in developing capacity for its use in new settings. The experience of the PMCA in the Andes, Africa, and Asia illustrates the value of engagement with partners in the field – as both innovators and as innovation facilitators or brokers. CIP's engagement in field activities has facilitated: introduction of a new R&D approach, development of capacities needed for its use, and South-South knowledge exchanges that have improved the approach and its application.

◆ Further reading

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