

Linking research with pro-poor innovation: the Papa Andina Case

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Linking knowledge generation in international research centers with national innovation systems and policy processes is challenging and poor linkage often reduces the impacts of research efforts. It has been especially difficult to link researchers with small farmers who produce root crops in marginal areas. This paper describes the approaches used by *Papa Andina*, a partnership program hosted by the International Potato Center, to link knowledge generation (in both international and national spheres) with political action and pro-poor innovation processes. *Papa Andina* employs the *Participatory Market Chain Approach* (PMCA) and *Stakeholder Platforms* to foster for pro-poor innovation within market chains. It engages policy makers and other stakeholders in visioning exercises for the potato sector and in supporting local innovation processes. *Horizontal Evaluations* are used to promote collective learning and knowledge sharing among professionals at national and regional levels. These approaches have stimulated commercial, technological, and institutional innovation and have contributed to the development of new market niches for Andean potatoes with comparative advantage for small farmers. After describing *Papa Andina's* approaches and the types of results obtained with native potatoes in the Andes, the paper discusses actual and potential uses of these approaches in other settings.

Keywords: market chain, stakeholder platforms, boundary organization, Andes, potatoes, innovation systems, collective learning.

Introduction

This paper deals with a central challenge facing international agricultural research: How to link knowledge generation with policy-making and economic activity in ways that stimulate innovation and reduce poverty. Research often produces new knowledge that for one or another reason does not result in improved rural livelihoods. However, those who provide funds for research expect their investments to benefit poor people (Adato and Meinzen-Dick, 2007). This increases the pressures on research organizations to link more effectively with development efforts, to ensure that research contributes to sustainable poverty reduction. Several strategies have been employed over the years to link agricultural researchers and farmers, including agricultural extension, outreach, and participatory technology development. Recently, there has been experimentation with innovation systems approaches that shift attention from research per se to the use of new ideas, new technologies or new ways of doing things. More attention is also being paid to value chains, enterprise development, public-private partnerships, and policies that impact on farmers' livelihoods.

Since its inception in 1998, the *Papa Andina* Partnership Program has worked with partners in Bolivia, Ecuador, and Peru to foster pro-poor innovation with potatoes. In its work, *Papa Andina* has incorporated elements of the linkage strategies mentioned above, and it has also developed some promising new approaches to linking knowledge generation with practical action.

Papa Andina functions as what can be called a *boundary organization*¹ that works to improve knowledge sharing and collective action across the institutional boundaries that traditionally separate researchers from other agricultural service providers, policy makers, small farmers, and market agents. *Papa Andina's* overarching strategy is to engage these diverse actors in dialogue and innovation processes that benefit poor farmers as well as other actors. *Papa Andina* and its partners have developed approaches that stimulate commercial innovation,

¹ This term is defined and discussed in Section 2.

which in turn stimulates technological and institutional innovation. As trust and social capital are built up, they strengthen local capacity for pro-poor innovation. Based on successful experiences with potatoes, Papa Andina's approaches have been applied in other value chains in the Andes and elsewhere. In this paper, we describe the development and application of Papa Andina's approaches, the types of results obtained, and the actual and potential future applications of these approaches in other settings.

Development of papa andina as a boundary organization

Papa Andina was established in 1998 as a project managed by CIP and supported by the Swiss Agency for Development and Cooperation (SDC). It was originally conceived as a regional project to strengthen potato research in Bolivia, Ecuador, and Peru through development of a regional research program. In keeping with the CGIAR strategy (de Janvry and Kassam, 2004: 159), its coordination unit sought to develop "a regional approach to research planning, priority setting and implementation" involving CIP's traditional research partners in the Andes. As work got underway, however, it became clear that national potato researchers were less interested in developing a regional research agenda than in coping with the external pressures that were buffeting their organizations. Production-oriented agricultural research was being questioned, research funding was declining, and little-understood market chain approaches were being promoted as part of a new development agenda. To cope with these complex institutional issues, Papa Andina linked up with the New Paradigm Project of the International Service for National Agricultural Research (de Souza et al, 2001), which offered a theoretical framework for understanding and managing organizational change. In this framework, research organizations and the potential users of new knowledge generated through research operate in dynamic environments characterized by multiple, and often contradictory, social, political, and economic forces. For this reason, research organizations need to carefully monitor their external environment and respond with agility to changing demands and opportunities. In essence, *research organizations need to focus more on anticipating and responding to technology demands and less on increasing the supply of new technologies*. Sparked by these ideas, Papa Andina shifted its emphasis from developing a regional research agenda to developing national capacities for innovation through collaborative learning with partners, progressively incorporating new ideas, adapting them to local circumstances, and finding new ways to achieve goals. This shift involved the development and use of participatory approaches, facilitation of teamwork and group decision-making, and collaboration with new types of partners outside the usual circle of research organizations. Papa Andina's coordination unit began facilitating collective action at the regional level, initially involving three *strategic partners*² – one research organization in each country played a lead role in facilitating innovation in potato market chains. Over time, the collaboration broadened to also include *operational partners* – who worked directly with Papa Andina and its strategic partners – and *allies* – who interact with national partners but not directly with the Papa Andina coordination team.

A network of approximately 30 *operational partners* and *allies* was developed. By working with and through this network of partners, Papa Andina has reached a growing number of farm families, currently estimated to be around 6,000. The relationship among those partners and the interaction mechanisms are presented in Figure 1. Papa Andina can be characterized as a *boundary organization* that mediates between institutions of science, politics, and economic activity to promote pro-poor innovation. David Guston (2000) coined the phrase boundary organization to refer to organizations operating on the boundary between politics and science. In the Papa Andina case, we use the term to refer to an organization that facilitates interactions across multiple boundaries that traditionally separate agricultural researchers from other key stakeholders in innovation processes, including, for example, agricultural service providers (providers of credit, technical assistance, and market information), agricultural policy makers, farmers, agro-businesses (traders and processors), retailers (including supermarkets and culinary schools), and consumer groups. Based on a recent study on knowledge systems for sustainable development, Cash (2003: 8086) concludes that "efforts to mobilize S&T [science and technology] for sustainability are more likely to be effective when they manage boundaries between knowledge and action in ways that simultaneously enhance the salience, credibility, and legitimacy of the information they produce." Three key functions of effective "boundary management" are communication, translation, and mediation (page 8088). Active, iterative and inclusive *communication* between researchers and decision makers

² Papa Andina's strategic partners are the Foundation for the Promotion and Research on Andean Crops (PROINPA) in Bolivia (<http://www.proinpa.org/>); the National Potato Program of Ecuador's National Institute for Agricultural and Livestock Research (INIAP) (<http://www.iniap-ecuador.gov.ec/>); and the INCOPA Project in Peru, a coalition of private and public partners that aims to improve small potato farmers' access to markets (<http://www.cipotato.org/papandina/incopa/incopa.htm>).

is crucial in efforts to mobilize knowledge in the service of practical action. In addition to open communication, *translation* is often needed to ensure that participants understand each other; such understanding between experts and decision makers is often hindered by jargon and differing assumptions about what constitutes a persuasive argument. And beyond translation, in the process of mobilizing science for practical action, stakeholders frequently have conflicting interests, which require *mediation*.

As a boundary organization hosted by CIP that aims to bridge gaps between research and sustainable development, Papa Andina has developed two main functions: i) Facilitation of pro-poor innovation in the context of market chains, ii) Promotion of collective learning and capacity development among partners and allies, particularly through South-South or horizontal learning.

Over time as described in the following section, Papa Andina has developed a number of approaches to perform these functions.

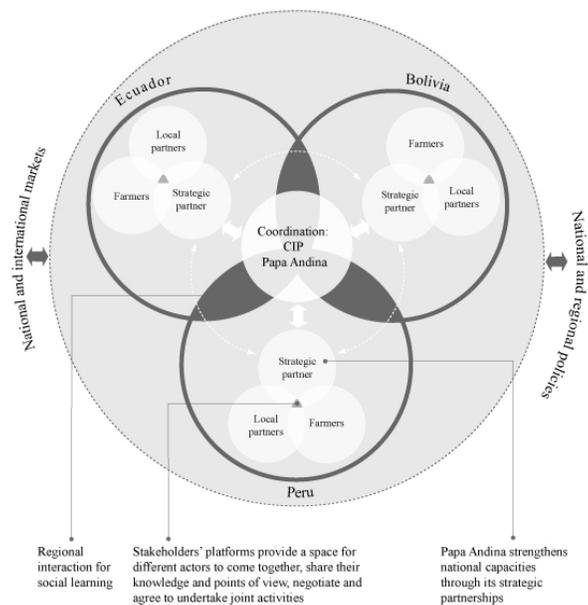


Figure 1. Interaction mechanisms among key actors in Papa Andina Partnership Program

PapaAndina's strategies

Identifying the assets of the poor: a pro-poor filter

In the Andes, as in many developing countries, the potato is often produced in poor, remote and mountainous areas, on small plots, by families with little land. But potatoes generate more added value and employment per hectare than any other staple. In order to help Andean farmers to build new livelihoods strategies, it was important to identify their comparative advantages such as the genetic diversity of potatoes, local knowledge, and social capital—assets that were often undervalued in the past. Until recently native potatoes, domesticated 8000 years ago and grown since then in the High Andes, received little attention in urban markets. But with their diversity in colors and shapes, high cooking versatility, nutritional profile, and traditional, low-input production practices, native potatoes represent a valuable asset for the small farmers who grow them. Native potatoes grow better in higher altitude (above 3,300 m) where small-scale farmers predominate. Hence, native

potatoes act as a “poverty filter,” meaning that using them in developing new commercial products would give a comparative advantage to poor Andean farmers. Papa Andina decided to concentrate its activities around those potatoes to promote market innovation that would give a comparative advantage to small-scale farmers. But this could not be done in a vacuum; a range of policies and institutions were required, including collective action among farmers and interaction with outsiders such as market agents and agricultural service providers, to foster market chain innovation and to access and build markets opportunities. Accurate understanding of the changing context of producers, processors, and consumers was required to ensure that potatoes play a role in improving the welfare of the poor.

Promoting pro-poor innovation

Papa Andina found the market chain to be a very useful framework for helping its strategic partners prioritize their interventions and understand the need for working with diverse stakeholders – including private businesses – to promote pro-poor innovation. Market chain analysis and development were beyond the competence of CIP’s traditional research partners, and became a central focus of Papa Andina’s regional coordination activities. Papa Andina facilitated access to external sources of knowledge on innovation systems and market chain development, and provided small grants to promote partnerships between research organizations and other key stakeholders in innovation processes. Several complementary approaches have been developed over time.

The Participatory market Chain Approach (PMCA).

The PMCA triggers pro-poor innovation in value chains. By harnessing value chains as drivers of innovation, PMCA makes it possible for small farmers to work with market agents, researchers, and others to analyze needs and opportunities. This allows market chain actors to identify and take advantage of new business opportunities, stimulating innovation that benefits small farmers. The direct results of PMCA are different types of innovations (Figure 2). PMCA consists in a facilitated participatory process organized around three phases (diagnosis, identification and implementation of innovations). Together, participants analyze and implement new business ideas with comparative advantage for small-scale farmers, and develop other kind of innovations needed to develop the new market opportunities. These other innovations can be technological (to improve farm-level or processing processes) or institutional (new ways of working, such as new organizations or legal norms). The PMCA process enables different stakeholders to develop mutual trust and fosters public-private partnerships. The PMCA provides R&D institutions with a mechanism for identifying high-impact-potential research areas. From an experimental process, the PMCA has been consolidated as a well-documented methodology (Bernet, Thiele, and Zschocke, 2006; Bernet et. al., 2008). Papa Andina took the lead in developing the PMCA methodology and in encouraging its use, through technical and financial support. Key functions of the PMCA are facilitation of effective communication among diverse stakeholder groups, translation across the diverse groups (who have limited and often conflictive previous contacts), and mediation of conflicting interests in the development of common goals and joint activities. In order to consolidate the innovation processes initiated through the PMCA and to promote the scaling up of its interventions with partners, Papa Andina has developed approaches for working in complementary areas.

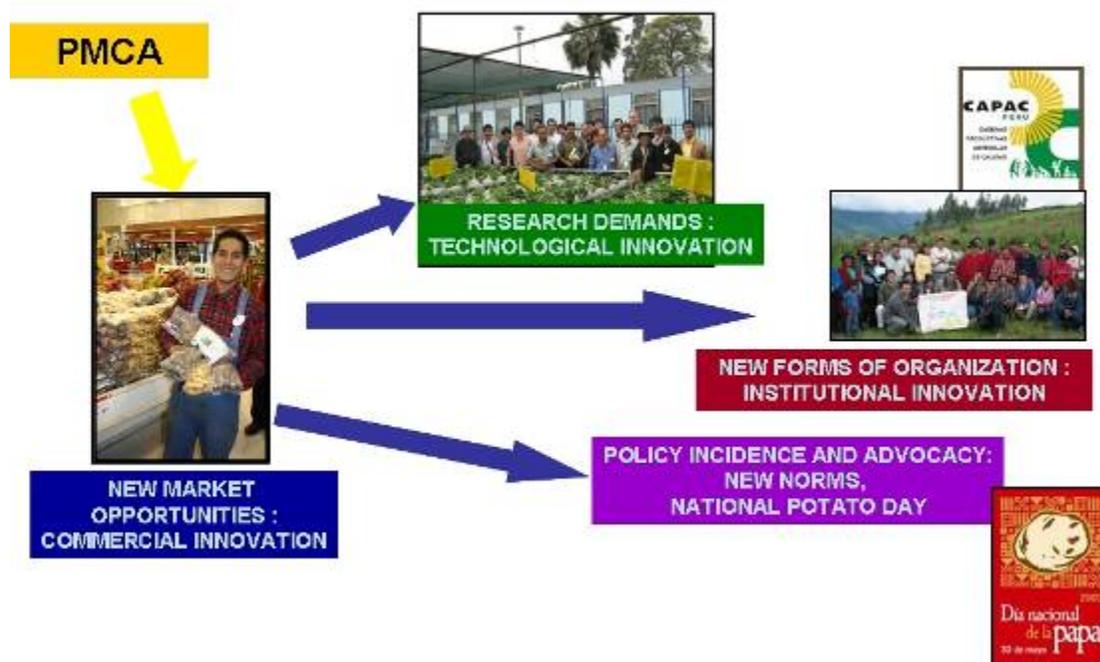


Figure 2. PMCA as a trigger for innovations

Multi-stakeholder platforms

Multi-stakeholder platforms provide spaces for communication, negotiation and joint action among value chain actors. They improve small farmer access to information, services, and training. Multi-stakeholder platforms have proven particularly useful to consolidate innovation process after a PMCA, helping to maintain dialogue and working relationships among stakeholders during and after its application of the PMCA. There are two different types of platform. The first is structured along the market chain and bring farmers together with traders, processors, supermarkets, researchers, chefs and others to foster new product development. The second is structured around geographically delimited supply areas. In both cases, key functions are communication, translation, and mediation, which require leadership and competent facilitation. Platforms address market coordination problems, helping small farmers to meet the volume, quality, and timeliness standards demanded of particular market chains. They also address market coordination problems in the market for support services and complementary inputs, bringing NGOs and others in to provide technical support or access credit (Thiele et al. 2009). Papa Andina and its partners have promoted the establishment of multi-stakeholder platforms and supported capacity development for their leadership and facilitation.

Policy dialogue

Innovation in the value chain may fall short without policy support and corresponding changes in the legal framework. To influence pro-poor policies in the potato sector, Papa Andina has promoted dialogue and interaction between researchers, civil society organizations, the private sector and political decision-makers. Two strategies have been applied. The first is based on influencing public opinion through media coverage on the importance and challenges related to potato value chains, and bring these issues further to political decision-makers. The second is to directly engage policy makers in developing a vision and a strategy for the potato sector (Devaux et al. 2009). In this second case, Papa Andina's role has been to draw on methodological expertise developed with other value chains and, with its partners, to adapt and validate the approaches with potato value chains.

Corporate social responsibility (CSR)

In value-chain innovation processes, there is always a risk that the lion's share of the benefits will go to large commercial interests. CSR represents an entry door to address the issue of small farmers' interests with the

largest players in the value chain. CSR refers to a company's philosophy and ethical form of management that takes into account the expectations of its stakeholders in order to achieve sustainable development (Thomann et. al., 2009). In the context of a pro-poor value chain, two important areas for enterprise-level CSR work are: developing a market segment willing to pay a high price for a high-quality, environmentally, and socially-sustainable product; and developing the competitiveness of its suppliers while reducing the asymmetry in bargaining power. Papa Andina has been sensitizing its partners to CSR, facilitating dialogue and participative processes involving large companies to create innovative ways to apply their CSR to the market chain.

Technologies for sustainable production

Commercial innovations have stimulated demands for increased production and increased quality. They have also generated a risk of pressure on traditional farming systems and High Andean ecosystems. New technological solutions to supply problems, which are feasible under the conditions of resource-poor actors, are required to develop environmentally sustainable and inclusive value chain. As a boundary organization, Papa Andina's role is not to develop new technologies, but to communicate and translate research demands from small farmers and other value chain actors to national and international research organizations. In this way, market-driven priorities can be incorporated into the research agendas of national research organizations, CIP Research Divisions, and private partners. New technology needs can sometimes be tackled by adapting existing knowledge to local conditions and strengthening local capacity via Farmer Field Schools (Ortiz, et. al., 2008). In these cases, CIP, Papa Andina, or strategic partners provide the needed knowledge or capacity-building support, which operational partners then make available to farmers. Longer-term and more sustainable solutions generally require collaboration with researchers at CIP or other advanced research organizations and may require additional funding.

Promoting collective learning

Horizontal Evaluation was developed by Papa Andina to promote knowledge sharing and collective learning, by combining elements of self-assessment and external peer evaluation. Horizontal Evaluations are implemented via workshops, where a local project team and peers from other organizations independently assess the strengths and weaknesses of a R&D approach being developed, and then compare the assessments. Project teams formulate recommendations for improving their work with the R&D approach, and peers consider ways to apply back home the R&D approach as well as other lessons learned during the evaluation. Practical results of horizontal evaluation have included strengthening the R&D approaches being developed, experimenting with their use at new sites, improvements in other areas of work, and strengthened interpersonal relations among network members (Thiele et al. 2007).

Results

The main outputs of the Papa Andina Partnership Program are the new R&D approaches described in the previous section. These are what Lawrence, Hardy, and Phillips (2002: 281) call "proto-institutions" – new approaches, practices, and norms that transcend a particular collaborative relationship and may become new institutions if they diffuse sufficiently. The approaches developed by Papa Andina involve the use of participative processes to facilitate innovation and to develop capacities for innovation among participants. Some initial impacts on livelihoods can also be observed in the Andes.

Outcomes: innovations and innovation capacity

Innovations for the potato market chain

Papa Andina distinguishes three types of innovations: commercial, institutional and technological, and has found that successful commercial innovation often stimulates subsequent institutional and technological innovation.

Commercial innovations are new products or marketing concepts that offer a comparative advantage to small farmers. Examples that involved Papa Andina's approaches include: gourmet, selected native potatoes, naturally colored chips, selected and bagged *chuño* and *tunta* (potato product dehydrated through a traditional method in the highlands). The PMCA has proven to be very effective in generating commercial innovations. Stakeholder platforms and CSR have played useful roles in further developing pilot products into economically and socially

sustainable, larger-scale businesses. For example, after the first native potato chips were introduced in Lima on a small scale, seasonal basis, a large commercial firm developed a much higher-quality product that is now available year round in supermarkets, is marketed on TV, and is certified as “ethically produced” by an independent body.

Institutional innovations are new organizational arrangements or rules that favor competitiveness of the sector and empower small farmers. The PMCA has led to identification of the need for such new institutions as quality standards for potato products and stakeholder platforms. Stakeholder platforms are themselves institutional innovations and they also are springboards for further institutional innovations. In several cases, policy dialogue or specific working groups facilitated by Papa Andina and its strategic partners have been necessary to consolidate institutional innovations. This was the case, for example, in the inclusion of native potato varieties in Peru’s official seed certification system, in the differentiation of the white and native potato sub-sectors in norms and standards, and in the establishment of a National Potato Day (by ministerial/presidential decree) in Peru and Ecuador, which inspired the FAO to proclaim 2008 as the International Year of the Potato.

Technological innovations consider issues that include the development of sustainable pro-poor technologies to improve farmers’ competitiveness developing new practices for production or post-harvest management that resolve bottlenecks in inclusive value-chains. Commercial innovations generated by PMCA, more rigorous quality standards for small farmers’ products, and improved communication among stakeholders in the platforms have highlighted priorities for research needed to help small farmers improve their productivity and the quality of their potatoes. Channeled towards CIP and other R&D organizations, these issues have been addressed with biological alternative for the control of the Andean potato weevil, a natural sprout inhibitor to increase shelf-life of native potato products, improved processing practices for the traditionally processed potatoes (“*tunta*”), and natural fertilization techniques improving tuber quality for the frying industry.

Strengthened innovation capacity

Innovations are the visible result of innovation processes promoted by Papa Andina. However, a potentially more significant outcome of Papa Andina’s intervention is the strengthened capacities for innovation that are developed throughout the innovation process by diverse stakeholders working together – R&D organizations, public authorities, NGOs, private companies, and farmers. Although the challenge remains to “measure” the extent to which innovation capacity has been strengthened, some tangible results and impact pathways can be mentioned: i) In the Andes, over 20 *operational partners* are using Papa Andina’s approaches, generating innovation processes that involve further *allies*, ii) User guides have been issued for the PMCA and Horizontal Evaluation and numerous other publications have been published on Papa Andina’s approaches with the participation of R&D organizations in each of the three countries, iii) Approaches developed by Papa Andina have been incorporated into CIP’s corporate plan.

Early impacts at farm level

The use of Papa Andina’s approaches by its partners in the Andes has led to some observable impacts at farm level. The development of market opportunities around (native) potatoes has enabled small-scale Andean farmers to access dynamic markets for the first time, despite the high production and transaction costs associated with their traditional production and marketing systems. Increases in yields and product quality (thanks to technological innovations and quality standards) have also been recorded. The market for native potato products has been developed, as a result of public and private advocacy and marketing campaign. This market development has resulted in increased competitiveness, higher prices, and improved incomes for small-farm families. Some specific examples follow. *In Bolivia*, the PMCA and stakeholder platforms have enabled small farmers to sell processed chuño in local supermarket and start exporting to Spain at 20 to 40% higher price compared to alternative markets. *In Ecuador*, stakeholder platforms have enabled thousand of small farmers to increase their yields from 6.3 to 8.4 MT/ha and to sell their potatoes to fast-food restaurants, raising their gross margin from USD 63 to 259/ha (Cavatassi et al. 2009). *In Peru*, stakeholder platforms have enabled 100 organized farmers in the Lake Titicaca region to sell 200 MT of quality chuño blanco or *tunta* for a total value of USD 590,000. The establishment of a business model with CSR in alliance with Pepsico made it possible for farmer organizations of the Central Andes and the Andahuylas region to sell over 100 MT of native potatoes through contract with a profit margin over 20%, for a total value of over 230’000 USD and generating over 15,000 workdays. Additional non-monetary impacts on poverty reduction include the creation of social capital among farmer organizations and between value chain actors, an improved consciousness on sustainable agriculture

resulting in improved health among potato farmers, and increased capacities (e.g. negotiation) for farmer organizations (Cavatassi et al. 2009).

Scaling up and out

Papa Andina's experience in the Andes has shown how a partnership program can link researchers more effectively with other service providers, small farmers, market agents, and policy makers, and how results can be achieved in the following areas: i) Commercial, institutional, and technological innovations, ii) Increased capacities for pro-poor innovation and iii) Farm-level impacts on livelihoods. To go beyond these initial results at pilot level, additional efforts are needed for scaling up and out.

Scaling up

In the Andes, increasing impact requires scaling up the use of Papa Andina's approaches. Priority are: leveraging public investment and developing innovation capacities at a larger scale.

Public-sector investment

Papa Andina and its partners have been applying their approaches in specific regions in the framework of development projects. In the three Andean countries, on the basis of positive results achieved and thanks to advocacy work, these efforts to develop and revalorize a pro-poor, competitive potato market chain are being brought to a higher level, driven by public initiative. In Ecuador, the Ministry of Agriculture launched a five-year program to support potato production and strengthen the potato market chain with a budget of around US\$ 7 million, to be complemented with an additional budget of \$26 million for credits to small farmers. This investment will support several projects in the areas of information systems, technological innovation, potato seed systems, organization capacity of the potato sector, and participation of small farmers in the marketing system. In Bolivia a multi-donor program to develop pro-poor and impact-oriented innovations coordinated by SDC is planning to use Papa Andina's approaches.. In Peru, new projects to support the native potato market chain are being designed, funded by competitive public funds or private funds (mining companies).

Development of innovation capacity

These new initiative will require capacities for innovation at a larger scale. In some cases, there is an explicit demand for the support of Papa Andina in providing its methodologies and local capacity strengthening. Strengthening innovation capacity on a large scale requires documentation of the approaches developed by Papa Andina and its partners, and preparation of training guides so that knowledge, skills, and attitudes needed to use these approaches can be effectively transferred to others. It also requires a capacity development strategy and the resources needed for its application. Documentation of Papa Andina's approaches and experiences is well advanced. User guides have been prepared for the PMCA and Horizontal Evaluation. Strategies for capacity development in these approaches have been elaborated and could be applied provided resources for a large-scale capacity development program are available.

Scaling out

Based on results with potato in the Andes, there has been considerable interest in the approaches developed by Papa Andina and experimentation with them has begun in other settings. Through partnerships with other organizations and CIP's global network, the PMCA has been used in different contexts and with a range of market chains in the Latin America, Africa, and Asia. The first pilot application of the PMCA outside of the Andes was in Uganda, where it was used in the potato, sweet potato and vegetable market chains. The Ugandan experience indicates that the approach can foster pro-poor innovation with locally relevant commodity chains in Sub Saharan Africa (Horton, 2008; Horton et. al., 2010). Through alliances with other organizations, including Practical Action (<http://practicalaction.org>) and in collaboration with CIP research Divisions and Projects (Cambio Andino) with the support from other donors including DFID and Inter-American Development Bank through Fontagro projects, the PMCA has also been applied in the market chains for milk, coffee, potatoes and other commodities in the Andes. Through a project supported by the Australian Center for International Agricultural Research, the PMCA is now being used in Indonesia to develop and promote dynamic potato market_chains. Since the PMCA is knowledge-intensive and approaches agricultural R&D in a new way, its successful introduction requires a well-planned and structured capacity-development process that promotes changes in attitudes and organizational culture as well as knowledge and skill acquisition. The horizontal evaluation

approach has been also been applied by other regional projects in the Andes (for example, the InnovAndes and Cambio Andino projects), and some professional evaluators have picked up the approach from specialist publications (Thiele et. al., 2006; 2008). Beyond the one-off application of PMCA or horizontal evaluation to a specific market chain or experience, consolidating and scaling-up innovations in other contexts will require the intervention of an institution that can play the functions of a boundary organization. There is a role to play here for R&D organizations.

Conclusions

Papa Andina and its partners have developed approaches for linking research with practical efforts to improve the livelihoods of poor farmers in marginal rural areas. These approaches capitalize on local assets such as the genetic diversity, indigenous knowledge, and social capital – assets of poor farmers that are often undervalued. Central to Papa Andina's overall strategy is the PMCA, which brings researchers together with other providers of agricultural services and with small farmers, market agents, and policy makers to foster innovation processes that benefit small farmers as well as other market chain actors. The PMCA is structured yet flexible enough to be applied to stimulate pro-poor innovation processes in a wide range of situations. The crucial role of Papa Andina as a boundary organization is to facilitate constructive dialogue and collective action processes at three levels. At the *local level*, Papa Andina promotes interactions and joint activities among diverse stakeholders to develop specific market chain innovations. Papa Andina has developed several tools for work at this level, including the PMCA and multi-stakeholder platforms. It has also facilitated the communication and negotiation of technology demands from small farmers to research organizations and other agricultural service providers and it has promoted CSR to increase the commitment of the private sector. At the *national level* Papa Andina has also promoted the development of multi-stakeholder platforms, policy dialogues, and the development of a strategic vision for the potato sector. At the *international level*, Papa Andina has disseminated its approaches through publications and other international public goods, it has supported the use of its approaches in other settings, and it has sought to build up a community of innovation facilitators. Horizontal evaluation has proven to be a useful tool to support knowledge sharing and capacity building. The Papa Andina case illustrates that facilitation of pro-poor innovation is a promising role for R&D organizations, including those involved with tropical root crops grown by small farmers. However, developing this new role requires additional investment for capacity development and large-scale implementation. Papa Andina has contributed to an emerging community of R&D professionals with the knowledge, attitudes, and skills needed to facilitate innovation processes among stakeholders and foster market chain innovation. These professionals represent a potentially valuable resource, which could be mobilized to facilitate innovation processes on a larger scale. Support for facilitation of pro-poor innovation processes would be a high-payoff area for international donor organizations as well as national and local governments and NGOs in developing regions.

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