

An aerial night photograph of a mountain village. Several tall, stone towers are illuminated from within, casting a warm glow. The houses and buildings are also lit up, and the surrounding landscape is dark with some greenery visible. The text is overlaid on the right side of the image.

Vibrant Mountain Communities

Regional Development in Mountains:
Realizing Potentials, Tackling Disparities

Sustainable Mountain
Development Series

Publisher:

Centre for Development and Environment (CDE), University of Bern, with Bern Open Publishing (BOP)
Mittelstrasse 43, CH-3012 Bern, Switzerland
www.cde.unibe.ch
publications.cde@unibe.ch

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This publication was supported by the Austrian Development Cooperation (ADC).

Citation:

Wymann von Dach, S. & Ruiz Peyré, F., eds. 2020. *Vibrant mountain communities. Regional development in mountains: Realizing potentials, tackling disparities*. Bern, Switzerland, Centre for Development and Environment (CDE), University of Bern, with Bern Open Publishing (BOP). 56 pp.

DOI: 10.7892/boris.146720

ISBN (print): 978-3-03917-015-9

ISBN (e-print): 978-3-03917-014-2

Editors: Susanne Wymann von Dach (CDE), Fernando Ruiz Peyré (IGF, OeAW)

Authors and advisory expert: see list on pp. 49–50

Concept of *Sustainable Mountain Development Series*: CDE, ADA and SDC, with contributions by the editors

Design: Simone Kummer (CDE)

Language editing: Tina Hirschbuehl and Marlène Thibault (CDE)

Proofreading: Stefan Zach (z.a.ch gmbh)

Printing: Werner Druck & Medien AG, Basel, Switzerland

The e-print is available at:

www.cde.unibe.ch

Cover photo:

The high-mountain town of Mestia (1 500 m asl) in the Upper Svaneti region of Georgia, a UNESCO World Heritage site. Agriculture is a pillar of the region's economy (GTW/shutterstock.com)

Marketing native crops to improve rural Andean livelihoods



André Devaux, Miguel Ordinola, Jorge Andrade-Piedra and Graham Thiele

Native potatoes are important in livelihood strategies for most poor Andean families. A systems-oriented approach for fostering pro-poor development in value chains has helped to identify business opportunities, facilitate collaboration among value chain actors and enhance information flows to increase competitiveness.

Colourful native potatoes (S. de Haan)

Potatoes have been a staple of Andean families for thousands of years. Because native potatoes (local landraces, a unique plant genetic resource) grow better at higher elevations (above 3 300 m asl) where small-scale farmers predominate, the Peru-based International Potato Center (CIP) decided to concentrate its activities around those potatoes to promote pro-poor market innovation. Andean farmers grow over 3 000 varieties of native potato, mostly to meet household needs rather than for sale. They are often at a disadvantage when it comes to doing business in high-quality food chains and ensuring compliance with standards, given scant access to financial and other services, and limited capacity for collective marketing.

CIP coordinated with its partners to develop new value chains for native potatoes anchored on the Participatory Market Chain Approach (PMCA). The PMCA, an innovation systems approach, applies principles of action research and collective action to foster inclusive value chain development. It engages multidisciplinary research teams and small farmers with other value chain actors, public officials and service providers, such as NGOs, in facilitated group processes in which business opportunities are identified and market-oriented innovations developed. The PMCA process was implemented over 12 to 18 months and comprised three phases, each ending with a public event for sharing and promoting results with value chain actors, service providers and policy-makers (Figure 1) [1, 2]. To empower small farmers, the PMCA was complemented by local platforms that facilitated interactions between potato producers, local authorities, the private sector and service providers. The platforms proved useful for consolidating innovation processes after a PMCA process. Through its emphasis on building on the assets of the poor and mobilizing local as well as scientific knowledge, the PMCA is consistent with gender transformative approaches. Subsequently, CIP issued a guide for integrating gender in the PMCA [3].



"My husband and I made the decision together. He also thinks it's good to invest in native potatoes. By reinvesting in seed, this year I was able to plant 2 000 kg. Half of the profits from the sale will go towards expanding the crop, and the other half towards improving the house. We also want to invest in livestock."

Nolberta Hinostroza Laureano,
vice-president of the Atacocha/Chicche
community, Junín, Peru

Lessons learned



Collaborating with chefs to promote the image of native potatoes (© CIP)

The PMCA identified opportunities and developed commercial innovations for high-value niches. It contributed to raising the visibility and uses of native potatoes. Selection, labelling and creation of new processed native potato products, such as gourmet chips, added value and expanded the market for these colourful and extraordinary potatoes (Figure 2). In Peru, the PMCA process proved to be an innovation trigger contributing to technological, institutional and commercial innovations.

These innovations had several outcomes: enhanced social networks which stimulated value chain innovation; a dramatic expansion in demand by urban consumers for native potatoes (the volume of native potatoes sold by farmers increased by more than 70 percent as prices rose); and policy changes recognizing these potatoes in the formal seed production system [4]. Institutional innovation such as the establishment of a National Potato Day in Peru further promoted native potatoes and stimulated demand [5]. NGOs strengthened the capacity of small producer organizations and improved links to market agents and processors. They also provided technical support to improve quality and consistency in production, and to achieve economies of aggregation. Women involved in the intervention were empowered to make choices and decisions about production and marketing issues, giving them greater authority to negotiate with other value chain actors [6].

The approach was also successfully implemented in Ecuador and Bolivia. Experiences in disseminating the PMCA highlight the importance of promotion and institutional support, capacity development, organizational change and funding. CIP is building on this experience and seeking to include a broader set of crops with the Andean Initiative, to address the threats of agrobiodiversity loss, climate change and malnutrition in an integrated manner [7].

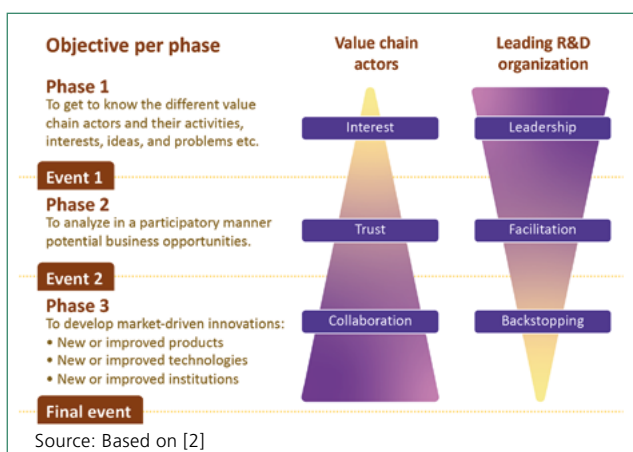
- Making use of new market opportunities will require an array of other innovations including institutional and technological ones. The approach used to improve native potato value chains in the Andes could be expanded to other Andean crops and to crops with similar potential in other regions.
- It is possible to utilize the unique genetic resources of mountain regions to generate income for farmers, by revaluing these resources as heritage foods in urban markets.
- Innovation-oriented approaches like the PMCA require flexible research and development programmes that allow creative adjustments to fit local circumstances, while respecting the basic principles of the approach.



Potato harvest in the Andes (© J-L. Gonterre)

Figure 1. The Participatory Market Chain Approach (PMCA)

Figure 2. New product development triggered by the PMCA in Peru



References

Note: URLs were last checked on 23 September 2020.

- [1] Devaux, A., Horton, D., Velasco, C., Thiele, G., López, G., Bernet, T., Reinoso, I. & Ordinola, M. 2016. Collective action for market-chain innovation in the Andes. In A. Devaux, M. Torero, J. Donovan & D. Horton, eds. *Innovation for inclusive value-chain development: Successes and challenges*, pp. 229–248. Washington, DC, USA, International Food Policy Research Institute. http://dx.doi.org/10.2499/9780896292130_07.
- [2] Bernet, T., Thiele, G. & Zschocke, T. 2006. *Participatory Market Chain Approach (PMCA) user guide*. Lima, Peru, International Potato Center. https://issuu.com/cecicastillod/docs/bernet_2006/71.
- [3] Mayanja, S., Barone, S., McEwan, M., Bernet, T., Amaya, N., Terrillon, J., Velasco, C., Babini, C., Thiele, G., Prain, G. & Devaux, A. 2016. *Prototype guide for integrating gender into Participatory Market Chain Approach*. Lima, Peru, International Potato Center. <https://cgispace.cgiar.org/handle/10568/88096>.
- [4] Devaux, A., Velasco, C., Ordinola, M. & Naziri, D. 2020. Enhancing value chain innovation through collective action: Lessons from the Andes, Africa, and Asia. In H. Campos & O. Ortiz, eds. *The potato crop*, pp. 75–106. Cham, Switzerland, Springer. https://link.springer.com/chapter/10.1007/978-3-030-28683-5_3.
- [5] Ordinola, M., Devaux, A., Manrique, K., Fonseca, C. & Thomann, A. 2011. Strengthening competitiveness of the potato market chain: An experience in Peru. In A. Devaux, M. Ordinola & D. Horton, eds. *Innovation for development: The Papa Andina experience*, pp. 151–160. Lima, Peru, International Potato Center. <http://cipotato.org/wp-content/uploads/2013/08/005850.pdf>.
- [6] Sarapura Escobar, S., Hambly Odame, H. & Thiele, G. 2016. Gender and innovation in Peru's native potato market chains. In J. Njuki, J. Parkins & A. Kaler, eds. *Transforming gender and food security in the global South*, pp. 160–185. New York, NY, USA, Routledge, International Development Research Centre. <https://www.idrc.ca/en/book/transforming-gender-and-food-security-global-south>.
- [7] CIP (International Potato Center). 2019. *Andean treasures and challenges*. Lima, Peru, International Potato Center. <https://hdl.handle.net/10568/105862>.

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