

Winner in the Category of  
International and  
Multinational Organizations.



*Photo: Jean-Louis Gonterse.*

## **12. Innovation to Assess the Biodiversity of Indigenous Potatoes: The Case of the Andean Potato/INCOPIA in Peru**

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The potato is the main crop of the Peruvian mountains, especially for small producers, as it is an important source of income and nutrition. Some 3,200 varieties of the indigenous potatoes are cultivated at altitudes higher than 3,500 meters above sea level. The Potato Innovation and Competitiveness Project (INCOPA, for its initials in Spanish; [www.papandina.org](http://www.papandina.org)) of the International Potato Center (CIP), in partnership with more than twenty organizations from the public and private sector, participated in the production and development of indigenous potatoes. These organizations believed that research and development should be joint initiatives in order to benefit small producers and all those involved in the potato sector. At the operational level, the program developed and applied the Participatory Approach to Production Chains (EPCP), which facilitates the identification of business opportunities, collaboration with stakeholders throughout the value chain, and the generation of innovations to enhance competitiveness. Emphasis was placed on working with small producers to take advantage of the existing biodiversity of indigenous potatoes as well as its related culinary, social and cultural attributes. The results achieved include several types of innovations, described below .

**Commercial innovations:** New products for the market made from native potatoes, such as: “My Potato, Selected & Classified” (packages of 50 kg destined for the wholesale trade); packaged and labeled Tunta (white chuño) (local market and export); “Andean Puree” (export); “T’ikapapa” (fresh gourmet potato selected, packaged and labeled for supermarkets); and “Jalca Chips” (native potato flakes for export). Based on these initiatives, new brands of snacks made from native potatoes - “Lay’s Andinas”, “Inca’s Gold”, “Natu Krunch”, “Nips”, “Mr. Chips” and others with which the project was directly related - were developed and introduced to the market between 2008 and 2011.

**Institutional innovations:** These include new public-private institutions or associations such as the NGO Quality Production Chains (CAPAC) of Peru, the Institutional Tunta Alliance, the Andean Potato Initiative and the Partnership for Learning. These were developed in response to the need to coordinate activities for increasing competitiveness (improvements in supply) or meeting requirements for new standards. Other innovations such as the designation of the National Potato Day, the Technical Standard for Tunta, Wholesale Potato Trade Law, among others, aimed at leveraging political support for the native potatoes chain. There has been widespread participation of stakeholders in public-private partnerships. This work was carried out with more than 20 partners at different levels.

**Technological innovations:** These included (1) the creation of norms and quality standards for “My Potato”, (2) the selection of native varieties with the right attributes for commercialization or processing, (3) the use of sprouting inhibitors to increase the shelf life of the indigenous potatoes, (4) the dissemination of integrated crop management strategies to improve the quality of the product in accordance with market

requirements, and (5) seed production techniques to ensure commercial quality production and long term sustainability.

This work has generated many changes in the potato sector, particularly among small producers. During the last decade, potato consumption in Peru has increased from 65 to 85 kilograms/person, one of the most notable examples of increased consumption of a particular food product in LAC in the past 15 years. Even with increased production, native potato prices rose by 55% during the same period due to a significant increase in demand. Higher sales and increasing prices contributed to the growth of the sales value of the native potato by 150% and an increase in the average sale per producer by more than 400%.

In Cayna in the Department of Huánuco, the family income from sales of yellow potatoes rose from US\$721 to US\$2,058. The potato yields increased from 10 to 14 metric tons/ha and also obtained a price premium of 20% due to high product quality. In Andahuylas in the Department of Apurimac, the producers achieved the highest yields (from 9 to 15 metric tons/ha) and also received the best prices (26% above the control group).

Undoubtedly, the smallholders in the Peruvian Andes have benefited significantly from the innovations promoted by this initiative, as well as from the favorable economic policies and the recent culinary boom in Peru. The project has had even more widespread impacts. The Participatory Approach to Production Chains has been used successfully in other parts of Peru, with other crops, and in other parts of the world, including Uganda and Indonesia. However, further action needs to be taken in order to further strengthen these results.