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► To cite this version:

Aurélie Carimentrand, Andrea Baudoin, Pierril Lacroix, Didier Bazile, Eduardo Chia. Quinoa trade in Andean countries: opportunities and challenges for family. State of the art report on quinoa around the world in 2013, Centre de coopération internationale en recherche agronomique pour le développement Food and Agriculture Organization of the United Nations, 589 p., 2015, 978-92-5-108558-5. hal-02798336

HAL Id: hal-02798336

<https://hal.inrae.fr/hal-02798336v1>

Submitted on 5 Jun 2020

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CHAPTER: 4.2.

QUINOA TRADE IN ANDEAN COUNTRIES: OPPORTUNITIES AND CHALLENGES FOR FAMILY

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Abstract

Quinoa's revival has roused much interest in Andean as well as in European and North American countries. This Andean product, formerly denigrated and destined only for self-consumption, has made its way into the diet of the urban populations of Andean countries and has now spread to the United States of America, Europe and other parts of the world. In the Andes, farmgate prices have gone up and the quinoa sector has become attractive to investors. A wide range of products based on this *Chenopodium* have appeared in shops – from breakfast cereals to healthy snacks, noodles, beverages, beer and even ice cream. These products are well positioned in niche quality markets such as the nutraceutical, organic and fair trade markets. Against this backdrop, various other commercial channels also: from the most traditional (barter) to the most modern (online sales), through to contract farming with modern processing plants with organic certification and fair trade labelling.

This chapter presents the changes in how quinoa is marketed quinoa in specific segments of this market, through a review of the literature of case study research in Bolivia, Peru, Ecuador and Chile.

Introduction

Quinoa can no longer be considered a food staple intended primarily for the self-consumption by the indigenous populations of the Andean highlands. The revival of quinoa has roused much interest in Andean as well as in European and American countries. In the last decade, the quinoa supply has diversified in terms of both varieties and products available. Today, in addition to the basic pearl quinoa (with the saponin removed, ready for consumption), there is a wide variety of quinoa-based products, such as breakfast cereals ("pipocas", quinoa flakes etc), biscuits, healthy snacks, noodles, instant soups, beverages, beers and ice creams.

The commercial "boom" of quinoa and market segmentation at national and international level have resulted in the creation of new value chains. Qui-

Quinoa is established in specific quality markets, such as nutraceutical, organic and fair trade markets (Cáceres, 2005). While traditional trading systems still exist, such as barter, it is the surge in quinoa sales in supermarkets and the export boom which have altered both trading and production systems. Certification processes for organic quality and fair trade have developed, primarily for the international market. Initiatives to promote the specific qualities of quinoa have also appeared through new short food supply chains, especially in Ecuador and in Chile, but also in Peru with the gourmet market.

Conventional chains

Bolivia and Peru: the two largest players in Andean quinoa

Most producers from the Andes sell quinoa on weekly farmers' markets where the measuring unit used is the "arroba" (11.5 kg). Some areas continue to practise bartering (in exchange for vegetables or bread), for which the measuring unit is the "puñado" (Image 1).

Local farmers' markets or larger markets (e.g. the Challapata farmers' market in Bolivia or the Manco Capac market in Juliaca, Peru) mostly bring together wholesalers who handle large volumes and supply the urban markets and processing plants. These middlemen buy quinoa at the weekly farmers' markets or directly from the communities; they



Image 1: Quinoa barter for bread in the Peruvian Altiplano. © Aurélie Carimentrand (July 2012).

assume the transport costs of the grain. As in many other chains, it is the middlemen who have the true bargaining power and control over the quinoa sector, since they deal in large volumes. Nevertheless, their market power is not the same everywhere. According to Risselborn (2011), competition is now fierce in the southern Altiplano of Bolivia and the middlemen have lost market power. In many communities, producers now have several options: sell to middlemen, to local companies or to cooperatives. These choices are linked to complex socio-economic models, as illustrated by the work of the ethnographer Ofstehage (2010, 2011, 2012) for the case of the San Agustín community in Bolivia.

Most of the quinoa market flow is recorded in the harvesting months. However, due to the fragmented sale strategies characteristic of small producers, a good portion of the production also flows to the market throughout the year. On local farmers' markets, producers do not usually handle standardized products; rather they sell a mixture of quinoa varieties. With the marked rise in urban and international demand for quinoa, new channels have been created which handle standardized products. This trend has impacted the organization and governance of these value chains, through the development of contract farming with high potential producers. Agro-industrial companies and exporters seeking to meet the market demand for uniform and large grains, encourage producers to sow improved quinoa varieties (e.g. 'Salcedo INIA' in Peru). This phenomenon represents a risk for the biodiversity of cultivated quinoa, as cultivation tends to be increasingly homogeneous, leading to limited varieties. Nevertheless, white quinoa is no longer the only variety sold: the market for coloured quinoa (red, black etc.) is also developing.

In Bolivia, the bulk of production is 'Quinoa Real' from the southern Altiplano of Bolivia (departments of Oruro and Potosí). Its revival began in the 1950s on informal markets, where it was destined for both domestic consumption and export to Peru, through networks of intermediaries formed by merchants in the region and the Peruvian Altiplano (Laguna, 2002). The emergence of peasant organizations (*Organizaciones Económicas Campesinas* – OECAs), in particular the *Central de Cooperativas Operación Tierra* (CECAOT) in 1975 and later the *Asociación Nacional de Productores de Quinoa* (ANAPQUI) in

1983, with the support of the *Confederación Sindical Única de Trabajadores Campesinos de Bolivia* (CSUTCB) facilitated the marketing of 'Quinoa Real'. These organizations were backed by foreign NGOs. Their objective was to improve the living conditions of quinoa producers. They aimed to obtain better prices and add value at the various levels of the quinoa supply chain, by taking care of collection, hulling, partial processing and marketing. These second-level organizations brought together several local organizations (Ayaviri *et al.*, 1999; Healy, 2001; Hellin and Higman, 2003; Laguna, 2011). Competition from private companies arrived soon after with Saite y Irupana in 1987, Jatariy in 1997, Quinuaból in 1998, Andean Valley in 1999, Quinoa Food in 2003, etc. There are 62 small-scale, semi-industrial and industrial quinoa plants in the country (Figure 1).

The first recorded export of quinoa in Bolivia was in 1983, when CECAOT shipped 200 tonnes to the Quinoa Corporation in the United States of America. According to data from the Bolivian Institute of Foreign Trade (IBCE), in 2012, around 26 252 tonnes of quinoa were exported for USD80 million. Quinoa exports have increased sharply since the 1990s. A large number of private firms, as well as various support institutions, have followed suit. However, there have been other increases besides exports.

For example, consumption on the domestic market has also increased threefold in the last 4 years,

from 4 000 to 12 000 tonnes in 2012 (even though the annual per capita consumption is still low at approximately 1 kg). In the 2012 crop year, approximately one-quarter of production was destined for the domestic market, one-quarter was "smuggled" to Peru and the remaining half was exported to the international market (Gout *et al.*, 2013).

In Peru, the leading quinoa producers' organizations are in Puno, Ayacucho, Cusco and Junín. However, they have neither followed the same development trend nor have the same impact as the Bolivian organizations. Peru's history of weak union movement dates back to the period of the dictatorship. None of these organizations are structured from the grassroots to the national level as they are in Bolivia. Moreover, even if there is a strong cooperative movement, it is concentrated in the lowlands and in commodities such as coffee, cocoa or tropical fruits. Furthermore, the majority of quinoa producers are individual farmers and are not necessarily part of a cooperative or association. However, the formation of associations, backed by local NGOs and regional governments, is spreading (see the 2013 directory of quinoa value chain). Peruvian law 29972 (2012) on the "inclusion of agrarian producers through cooperatives" strengthened this perspective. At present, these organizations do not have their own processing plants, except for the COOPAIN cooperative (San Román province, Puno) which comprises 15 organizations (> 500 members cultivating some

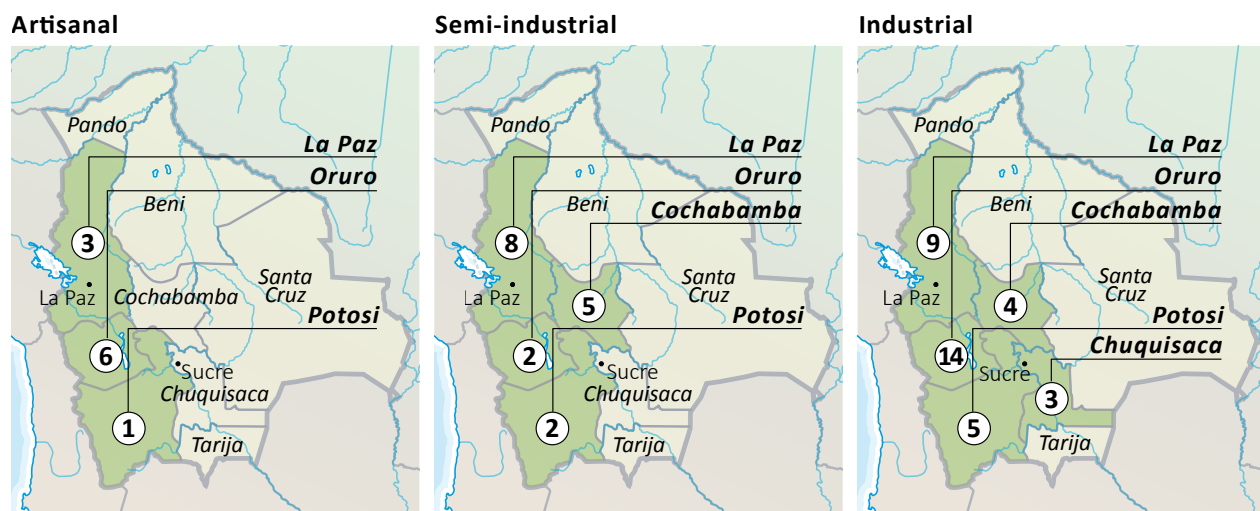


Figure 1: Quinoa processing plants by department and type in Bolivia. Source: IBCE/Foreign trade No. 210, p. 13, March 2013.

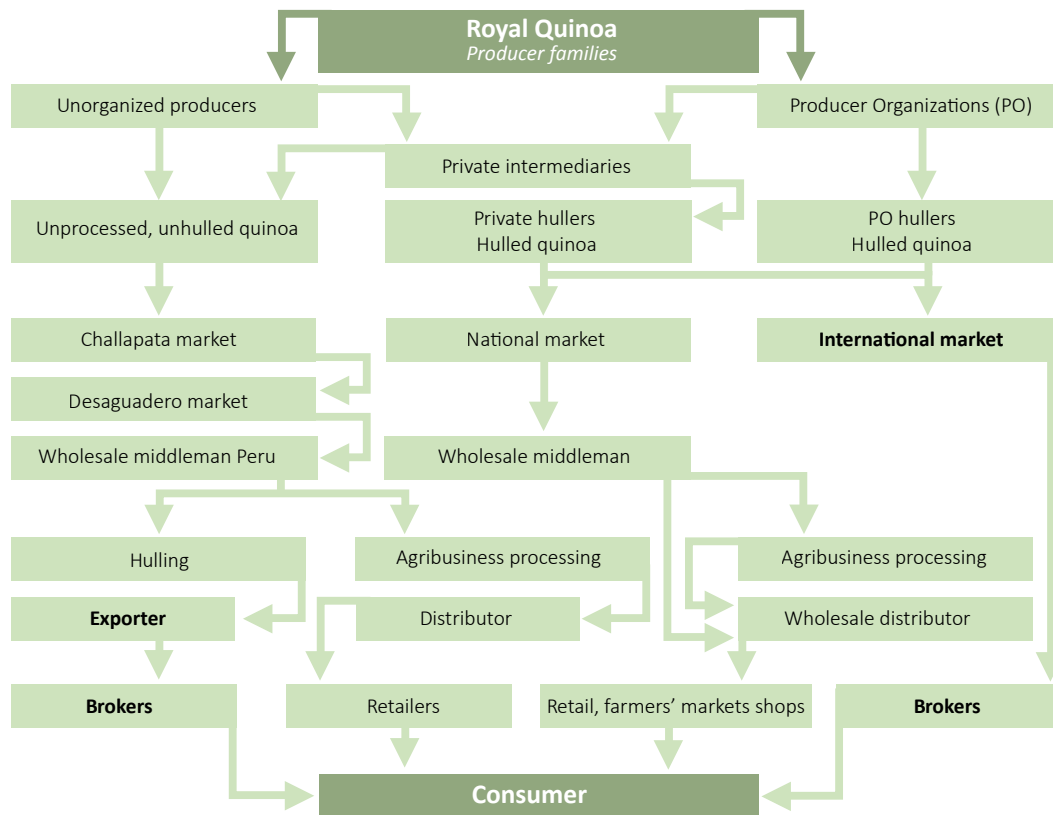


Figure 2: Economic actors in the 'Quinoa Real' value chain (southern Altiplano of Bolivia)
Source: Gout *et al.* (2013) from Soraide (2008).

520 ha of quinoa). It is the leading organization of quinoa producers with its own plant in Puno. The other quinoa processing plants are private firms.

Quinoa exports in Peru began in 2005. In 2011, the country exported around 7 991 tonnes of quinoa to 36 countries for a value of USD25 million (SUNAT). This value rose to more than USD30 million in 2012. The main market for Peruvian quinoa is the United States of America. Sierra Exportadora, a public organization, actively promotes quinoa and fosters relations between the different actors in the chain. In 2011, the leading firm in quinoa exports was "Organic sierra y selva" with a value of USD10 million (40% of the country's quinoa exports). The company runs a very modern plant (automatic washing and drying) in the Lurin district in southern Lima. Another major company is the "Grupo Orgánico Nacional"; it too operates a plant in the south of Lima (Chorrillos). There are four factories in Puno which process quinoa for export: the Altiplano SAC, founded in 1994, and Agroindustrias CIRNMA, ASAIGA and the COOPAIN cooperative since 2010.

Altiplano SAC attempted to export quinoa directly but following a series of difficulties, it preferred to deal with a Lima-based broker who coordinated the transportation and handled the customs formalities.

At national level, the authorities hope to raise the annual per capita consumption of quinoa, which is currently 800–1 000 g. The national market for new quinoa-based products is developing at the same rate as Peru's growing middle class.

With the Peruvian gastronomic "boom", neo-Andean chefs are promoting the consumption of quinoa, using it in modern dishes. The APEGA-Peruvian society of gastronomy, organizer of the Mistura Food Festival, is working to create an alliance between chefs and farmers including quinoa producers.

From 2007 to 2011, the farmgate price increased threefold, moving from a value of PEN1.22 (nuevos soles) per kg to a value of PEN3.68/kg (MINAG – OEEE, Figure 3).

Ecuador

In Ecuador, a substantial portion is sold to traditional middlemen; the rest is directly purchased by private sector representatives, such as Inagrofa, or “socially-responsible” firms, such as the *Fundación Mujer y Familia* (FUNDAMYF) or Sumak Life, the main intermediaries dealing in large volumes. The middlemen have contacts with merchants and grocers. The main ones are located in the city of Ambato and their operations include purchase of Ecuadorian quinoa, and storage and distribution of large quantities of Peruvian or Bolivian quinoa smuggled into the country. However, given the sharp increase in quinoa prices in Ecuador since 2012, the supply chain is likely to undergo changes. There may be at least a temporary reduction in the activity of the wholesalers and retailers, who only supply the domestic market. This would benefit agrifood companies which focus on exports. Even if export prices are high, there is no impact on consumption, at least in the United States of America. Sales to associations and farm cooperatives occur on two levels.

- The first level involves peasant organizations specialized in quinoa and targeting special export markets with certification, such as Coprobich. Other organizations may not be fully autonomous in the commercial process, which continues to be managed by external entities with variable legal status (foundations, socially responsible companies, private firms).
- The second level involves less specialized peasant organizations, supporting a variety of producer

activities and intervening on a small scale in the artisanal transformation of quinoa and other Andean grains, as in the case of Unopac in Cayambe or Mushuk Yuyay in Cañar.

Two years ago, the company Inagrofa attempted contract farming, supplying seeds and technical assistance to producers. This experiment was in the provinces of Imbabura and Carchi, but was short-lived, as only a small number of producers could sell through the company and they were left without a market. In 2013, the company sought again to work with producers, but from other sectors, given the lack of motivation of the producers who previously worked with this firm.

With regard to exports, an Ecuadorian consortium was created in early 2013, comprising three private companies, Cereales Andinos, Urcupar and Rogetore y Franco, with two foundations, FUNDAMYF and *Maquita Comercializando Como Hermanos* (MCCH).

Public purchases of quinoa and its derivatives occurred for just 1 year, in 2010. It involved a public procurement order for 260 tonnes under the food supply programme from the Coprobich organization and producers in the northern mountains. Due to the difficulties meeting processing deadlines (since private plants prioritize quino processing for their own market rather than that of the organization), Coprobich lost money in this sale to the state. The rules of public procurement were later changed and to date, there have been no quinoa purchases by the state, at least not in any significant proportion.

A relatively small proportion of the quinoa is sold directly at fairs, be they peasant, socially-responsible or agri-ecological. For example, at the farmers’ markets of the northern mountains, of around 100 points of sale, only two or three sell quinoa. Sales are just 10–20 kg/week. At the socially-responsible farmers’ markets in the northern highlands, accompanied by the NGO AVSF (5 fairs and 600 producers), around 2.5 tonnes of quinoa were sold in 2012. Organizations, such as FICI, CCM, Unorcac or agri-ecological associations in the southern mountains, promote and manage farmers’ markets. These markets contribute, albeit on a small scale, to the direct sale of quinoa by farmers, at fairly accessible prices (more or less half the quinoa price applied in large-scale

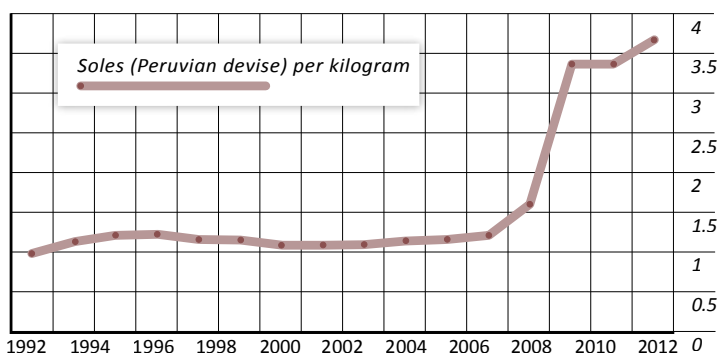


Figure 3: Trend of quinoa farm prices in Peru.
Source: Based on data from MINAG-OEEE.



Image 2: Quinoa producer and Chimborazo quinoa leader, Ecuador © Jean-Philippe Noel

retail outlets such as supermarkets). Even though barter is still practised on various producer markets, in particular the farmers' markets of the northern mountains, where peasant groups declared 2013 the international year of barter, it is gauge how important this practice is for quinoa. Although the crop is present at producer fairs, it accounts for a very small proportion of the goods on sale.

Current prices are high in Ecuador – as in other parts of the world – for both producers and consumers. Currently, producers sell on average 1 Spanish quintal of 46 kg of raw quinoa (unwashed, unscarified) for between USD80 (USD1.74/kg) and USD120 (USD2.5/kg). The consumer price is USD2.2–3.3/kg at local farmers' markets and USD5.5–6.6/kg in urban markets and supermarkets. Unlike in Bolivia,

these high fluctuating prices are a new phenomenon in Ecuador. In 2009, 1 Spanish quintal was worth more or less USD40, in 2010 USD90 and it fell again in 2011 to around USD30–40, to then rise in 2012 to USD80–100.

There is high demand from importers for quinoa, but production does not meet demand, resulting in increasingly high prices: from USD3 000/tonne FOB in 2012 to USD3 500–4 000 (or, in some cases, USD5 000/tonne FOB) before the end of 2013.

Chile

The main quinoa production area in Chile is located in the Iquique region, at an altitude of 3 800 m asl in the Chilean Altiplano. Production is mainly carried out by elderly farmers, since young people have abandoned farming and migrated to the large cities. In this region, quinoa has its roots in the Aymara culture. In Norte Chico (region of Coquimbo), some producers are striving to (re)introduce quinoa with the primary goal of producing healthy food. In central Chile (between San Fernando, Curicó and Linares, Libertador Bernardo O'Higgins region), quinoa is grown at sea level (< 800 m asl) by small elderly producers on small plots. Quinoa is traditional in this area, and for some producers, it is a crop with interesting economic potential, once the issue of marketing is resolved. In the southern part of Chile (around Temuco, in the Araucania region), quinoa is linked to the Mapuche culture and is found growing in the gardens of Mapuche women (Bazile, 2013).

In numerous studies about Chilean quinoa, reference is often made to a growth boom on the national market. It is, however, extremely difficult to find evidence to back this claim. In the absence of proof, increase in supply is usually considered the same as market growth. It appears that quinoa self-consumption continues to grow and that sales often pass through informal markets. However, surveys (Bazile *et al.*, 2012) show that farmers sell an increasingly large amount of their production on both informal and formal markets (middlemen, co-operatives etc.), in addition the different regional markets: > 25% in the south, > 50% in the north, > 85% in the centre.

In the 1980–90s, there was a shortage of quinoa for national consumption, especially in the Tarapacá region where more than 90% of Chilean quinoa is currently produced and where the majority of the indigenous Aymara people live. Several factors explain this quinoa shortage, including bioclimatic factors, prices on international markets, migration of young Aymaras, and competition with and overlapping of Bolivian production. This shortage had a huge impact on quinoa production in the Chilean Altiplano.

The commune of Colchane is one of eight rural communes in the Tarapacá region (260 km north-west of the city of Iquique, regional capital of Tarapacá) with a total of 23 Aymara communities. In this commune, approximately 1 200 ha is devoted to quinoa cultivation, but only 250–350 ha actually produce quinoa, since the community still practises the tradition of crop rotation, leaving the land fallow or idle for 2 years.

Since 2000, the Altiplano producers have regained interest in the cultivation and marketing of quinoa, thanks for the main part to high international prices and access to projects and financial resources. They have also begun to organize themselves at regional level to optimize the production and sale of quinoa and its by-products, with the aim of conquering local, national and international markets.

In this context, two quinoa processing organizations were created in 2000 and 2007, respectively, in the commune of Colchane: Jaira Marka (NGO) and QuinoaCoop (cooperative). Jaira Marka was created in 2000, with the intention of bringing together and organizing the 160 quinoa producers from over 20 Aymara communities in the commune of Colchane. The plan was that they unite and join forces so as to collectively cope with the technical and economic changes required to establish their position in the global market. QuinoaCoop was created in 2007 within a single Aymara community, the Ancovinto community.

Self-consumption varies from family to family; it is nevertheless estimated that 30% of the quinoa harvested every year goes to self-consumption and the rest is sold. The main markets are: Bolivia, through the Pisiga-Bolivia bimonthly farmers' market on the Chilean border; and direct sale of small quantities

(with personal networks or through the markets) in Iquique, Alto Hospicio, Putre or Pozo Almonte. In 2009, Colchane producers sold unprocessed quinoa at the Pisiga market for between CLP450¹ (pesos) and CLP800/kg. The same quinoa, processed and packaged, can be sold as much as CLP3 000/kg to Chilean consumers in the cities of Iquique, Alto Hospicio, Pozo Almonte and Arica.

Between 2000 and 2009, the price of unprocessed quinoa rose sharply, reaching more than USD2,100 (CLP 54 000) per quintal (45 kg). In the post-harvest period (April–August) the purchase price fell slightly (due to increased supply) to USD80/quintal. In Pisiga, Bolivian buyers no longer apply different prices to the different grains, and all ecotypes are sold at the same price. The colour does not have much impact on the value, as in previous years (Arar, 2009).

Support from the Government and non-governmental institutions is important for the development and commercialization of quinoa. Quinoa producers are in contact with the professionals of these institutions; they present projects through which they can obtain economic or material resources for production or marketing. The main institutions intervening at commune level are:

- Prodesal: agreement between the Municipality of Colchane and INDAP (*Instituto de Desarrollo agropecuario*), technical support for the cultural management of quinoa and camelids (llamas, alpacas).
- Origenes: programme of CONADI (*Corporación Nacional de Desarrollo Indígena*), evaluation and allocation of resources to collective and individual projects of producers on three issues: organization, production and culture (for example, the UMA project [*agua* in Aymara] which concerns access to water and field irrigation).
- FIA (*Fundo de Innovación Agraria*): financing of collective projects with productive goals.
- UNAP (*Universidad Arturo Prat*): survey of production systems and varietal improvement of plant species cultivated in the Altiplano.

¹ Based on an exchange rate of 1 USD = 500 CLP approx.

The two organizations, Jaira Marka and QuinoaCoop, are entering the market and are striving to position themselves. Jaira Marka, despite the close ties between this organization and the municipality of Colchane, and after a good start, has been struggling to survive, and to build on and participate in innovations at territorial level. The difficulties stem from the different situations of the 136 members, and the main problem has been existing conflicts between communities. In the case of QuinoaCoop, the vision of its young leader is to “modernize production” and processing, and alliances have therefore been formed with the *Universidad Arturo Prat* in Iquique (*Cátedra del desierto*). It currently has 14 members, all from the Ancovinto community (southern sector Cariquima) (Bazile *et al.*, 2011).

Jaira Marka began to sell quinoa in 2000 under the *Grano del Sol* brand, in the form of various quinoa products and by-products, in local and national supermarkets (e.g. the Roxy chain). It even sells to private companies that supply airline companies (Skychef). In 2004, it decided to use the regional funding it had obtained to buy a processing plant (five machines) and a storehouse to process its own grain. But production and transformation stopped a few years ago for several reasons, but mostly due to competition from the Bolivian market. Bolivian buyers at the Pisiga market or in small communes on the other side of the Chile–Bolivia border, offer a good price and pay cash for unprocessed quinoa. For this reason, many Chilean producers prefer to sell their unprocessed production directly to these buyers.

The QuinoaCoop was initially founded with the goal of giving a different focus, a more commercial legal framework, to an organization which already existed as the *Indígena Aymara de Ancovinto* community. Its primary goal is to produce and sell quinoa on a larger scale under its own trademark and name, conquering new national or international markets. Producers still work in traditional organized groups or *Ayne*, as they are known in the indigenous Aymara tongue. They deliver part of their production to the cooperative, which sells various quinoa products under the QuinoaCoop trademark. With the support of institutional projects (FIA), it acquired a processing plant, machinery and storehouse for processing, transforming and packing quinoa. The *Universidad Arturo Prat* (UNAP) provides technical

assistance. The cooperative recently began to market its product on the local, national and international quinoa market in different forms: grain, white and toasted flour, “pipoca”, biscuits.

Agriculture in the valleys of central Chile is typical of the type of export agriculture backed by Chilean public policies since the early 1980s. They are mostly export monocultures (vine and fruit trees), grown on fertile soils, with access to high technology and substantial capital. In the “dry coastal” region, a tiny isolated farming region, the poor, depleted soils are a serious constraint in family farming. It is here that quinoa is grown on small plots. Quinoa is closely linked to the identity and social history of these impoverished peasants; it is associated with a special gourmet culture intertwined with an entire socio-technical background. On these farmlands characterized by an inhospitable climate, the cooperative movement has had a powerful social role. The *Cooperativa Las Nieves* was created at the end of the 1960s, right in the middle of the agrarian reform in Chile. The neoliberal economic model, introduced during the Pinochet dictatorship, destroyed nearly all social networks linked to agricultural cooperatives in Chile. In the 1990s, the search for a means to save the cooperative led the economic stakeholders of the time to propose quinoa as the springboard for local rural development. In 2004, the *Agrícola Las Nieves* company was formed. It comprised seven members, including *Cooperativa Las Nieves*, which at that time yielded its name to the major producers in the zone. They joined forces in order to export their quinoa to the North American and European markets. Quinoa then evolved from a self-consumption product (> 80%) to an economic commodity (> 90% sold). Thus, the local social structure depends on the ties between one stakeholder with a powerful position in the sector, *Agrícola Las Nieves*, and all the other stakeholders in this rural territory. *Agrícola Las Nieves* has positioned itself as the only large-scale transformation and marketing company; it is today the promoter of all public-funded quinoa projects. The huge difference in prices paid to producer-shareholders (8–10 ha on average) and to isolated small producers (0.25–1 ha) gave rise to repeated conflicts until the recent disappearance of the company. The small producers in the central zone have now formed a cooperative (*Cooperativa de Productores de Quinoa*

del secano, COOPROQUINUA); rather than focusing on export, the association concentrates on getting the production to the domestic market, in particular the Santiago market, 200 km away.

Value chains of organic and fair trade products

Fair trade quinoa from Bolivia

The bulk of exported quinoa is organic and/or covered by fair trade labels. There is also a domestic market for organic products. For the international market, organic quinoa is certified according to the standards of the importing countries. Quinoa certification is handled by national and foreign certification firms, such as Biolatina or Imo Control.

National standards have existed for the domestic market since 2006: the Bolivian technical standard (law 3525/06) and technical regulations for organic producers in Peru (Supreme decree 044-2006-AG). In Bolivia, the association of Bolivian ecological producer organizations, *Asociación de Organizaciones de Productores Ecológicos de Bolivia* (AOPEB), actively strives to promote the national consumption of organic products. In Peru, quinoa can be purchased through new short organic food chains, such as the weekly organic produce markets (Bioferias) held in Lima.

There are a range of fair trade initiatives for quinoa (Carimentrand, 2008, 2011). Most fair trade importers resort to the use of Fair trade labels. The most popular is the FAIRTRADE label by Fairtrade

International (previously known as FLO), which was adapted to quinoa in 2004. It guarantees a minimum price – recalculated in 2012 to reflect the price increase and the sustainability problems faced by quinoa channels. The current minimum price for processed quinoa is USD2 250 per tonne for conventional quinoa and USD2 600 for organic quinoa (Fairtrade International, 2012, Table 1). It also guarantees a fair trade premium of USD260/tonne.

Quinoa fair trade began in the Altiplano of Bolivia in 1989 with the first contracts signed by quinoa-growing OECAs with fair trade European importers, thanks to the support and contacts received through international technical cooperation. At that time, there were no labels for fair trade quinoa. Quinoa was sold in world shops that sought to support small producers “from the South”. From 2004 onwards, the FAIRTRADE certification for quinoa meant that fair trade quinoa could be sold in supermarkets, especially in Europe, through fair trade brands such as Alter Eco or Ethiquable in France. Fair trade draws attention to the biodiversity of quinoa by offering a range of coloured quinoa grains (black quinoa, red quinoa or mixed quinoa).

In the early days, fair trade focused on promoting the organization of producers; in other words, producer organizations handled the collection, washing and hulling of the quinoa, and they were in direct contact with import businesses to get the produce out of the country. The producers therefore played a major role in adding value to the final

Table 1: Changes in fair trade prices with the FAIRTRADE label for quinoa

	Existing prices in USD/tonne	New prices in USD/tonne
Geographic scope	Bolivia, Ecuador, Peru	South America
Product form	Raw quinoa	Processed quinoa
Price level	Farmgate	FOB
Minimum fair trade price for organic quinoa	861	2 600
Minimum fair trade price for conventional quinoa	771	2 250
Fair trade premium	85	260, of which at least 78 to be invested in environmental sustainability

Source: Fairtrade International (2012)

product through their organizations. In this case, the communities were more than suppliers of the raw material: they had significant control over the production chain and accordingly more extensive bargaining power.

In 2013, there were five FAIRTRADE certified producer associations in Bolivia: ANAPQUI, the “Asociación Ayllus Productores de Quinoa y Camélidos”, the “Asociación de Productores Comunidad Cayñi”, the “Asociación de Productores de Quinoa Salinas” and the “Asociación Integral de Productores Orgánicos Capura – AIPROC”. Another important label for Bolivian quinoa sold in France is the “bio-équitable” label used by a company called Jatary and based on the Fairtrade standard (ESR) of the Ecocert organic certification organization. In recent years in Bolivia, exports from producer organizations under the FAIRTRADE label have lost some ground to fair trade exports by private firms (Gout *et al.*, 2013). With the new fair trade standards allowing certification of contract farming, a debate has been sparked. On the basis that in “the medium term, capacities shall be transferred to the producers”, the door was thrown wide open for the fair trade marketing system. Until then, it had been concerned with promoting value added for producers; now it was to become something more conventional (Gout *et al.*, 2013).

In Peru, there is only one FAIRTRADE certification organization: the Coopain Cabana cooperative in the province of San Román near the city of Puno (Image 3). It has been observed that organic agriculture certification bodies tend to propose their own fair trade labels (e.g. the FAIR CHOICE label of Control Unión). Often, certification takes place at

the same time. In Peru, the two largest exporters of quinoa are both FAIR CHOICE certified. Moreover, the largest exporter also has the FAIR FOR LIFE label from IMO Control (a Swiss certification organization with its head office in Lima).

On the way to organic certification

In Bolivia, organic certification emerged soon after fair trade, with the implementation of the quinoa natural production programme (PROQUINAT) in 1992 at the level of ANAPQUI. It was in response to the demand for quality from fair trade consumers, confirmed by a market study conducted by IICA (IICA/PNUD, 1991; Laguna, Cáceres and Carimentrand, 2006). ANAPQUI and CECAOT organize the training and collective certification of their members, organic quinoa producers in the Bolivian Altiplano. They also collect, process and export organic quinoa. Private sector competition soon arrived in the shape of Bolivian companies, such as Saite, Jatary, Quinabol, Andean Valley, Quinoa Food – members of the Bolivian chamber of organic quinoa producers and exporters (CABOLQUI). They source organic quinoa through contracts with producers who have organic certification. Meanwhile, quinoa sales continue to grow in both organic/health food stores and European and North American supermarkets. Organic quinoa is also delivered to various other countries, including Japan, Australia, and China. Ecuador and Peru have certainly followed the Bolivian trend.

In Peru, organic certification began in the 2000s. Producers aimed to access markets that are more lucrative than the domestic market, and more open than national institutional markets such as the national food assistance programme (PRONAA). In the department of Puno, which accounts for roughly 80% of Peru’s quinoa production, certification was promoted mainly by NGOs, the Juliaca urban-rural promotion centre (CPUR) and the natural resources and environment research centre (CIRNMA) of Puno. Thanks to the technical and financial support of CPUR and CIRNMA, organic certification was obtained by 300 producers from various districts in the provinces of San Román (Caracoto, Vilque, Manazo), Chucuito (district of Juli) and Azangaro. These channels transform and export organic quinoa through the “commercial arms” of the NGOs: El Altiplano SAC for CPUR and Agroindustrias for CIRNMA. Other initiatives worthy of mention in-



Image 3: COOPAIN-CABANA Cooperative (Department of Puno, Peru). © Aurélie Carimentrand, July 2012.

clude the Puno-Cusco brokerage (financed by FIDA) and Pronamachcs (with APROMIC).

Organic certification impacts the way transactions occur in these channels, with collective certification carried out on behalf of NGOs or private companies, such as “Organic Sierra y Selva” and “Grupo Orgánico Nacional”. These companies sign contracts with the producers; they provide technical assistance and, in some cases, seeds (Carimentrand, 2008).

The experience of small producers from Ecuador

In Ecuador, the differentiated quinoa markets, i.e. fair trade and organic, are primarily managed by foundations handling both community development projects and quinoa trading. The fair trade and organic quinoa market accounts for around 500 tonnes/year, the bulk of which is exported, with only small volumes sold on the domestic market.

In Ecuador, only one peasant quinoa certification organization exists with both the FAIRTRADE and the SPP (small producer) label. SPP is a proprietary label of the producers and is managed by FUNDEPPO (*Fundación de Pequeños Productores Organizados*). It includes “Bio Taita Chimborazo” (Coprobich), the association of organic producers and traders. Its sales on the foreign market vary between 20 and 100 tonnes, depending on orders from its two leading customers (Ethiquable and Inca Organics) and on its quinoa processing capacity. Since it does not have its own plant, processing is done by leasing the plants owned by Sumak Life and FUNDAMYF. However, with the sup-



Image 4: Quinoa plant of the Coprobich organization under construction in 2013 © Jean- Philippe Noel

port of AVSF and funding from the Cadens project of the Ecuadorian Ministry of Agriculture, Coprobich is now building its own plant and aims to become the leading Ecuadorian organization producing, processing and directly exporting quinoa to the fair trade and organic market. With this infrastructure, the organization intends to sell quinoa grains and its derivatives on the domestic market, while promoting the SPP fair trade label managed by Latin American fair trade producer organizations.

Various foundations have created commercial arms for quinoa exports under the fair trade principles of the WFTO (World Fair Trade Organization). They include, in particular:

- The *Fundo Ecuatoriano Populorum Progressio* foundation (FEPP), whose commercial arm is the Camari network of retailers on the domestic market, dealing in socially responsible produce including quinoa. Camari sells around 18 tonnes/year, especially on the domestic market.
- The Maquita Cushunshic foundation MCCH (*Maquita Comercializando Como Hermanos*), with a small quinoa processing plant. It sells on the domestic market and exports about 8 tonnes.

The above players produce or process mostly organic quinoa and BCS is the main certification company. In addition to these three leading fair trade companies, there are other players in the marketing of organic quinoa, including:

- FUNDAMYF, with its Ramdipak trademark quinoa, is the only company retailing organic quinoa in Ecuadorian supermarkets. Between 2007 and 2011, it exported 46–135 tonnes of quinoa, with significant fluctuations from year to year.
- The *Escuela Radiofonicas Populares del Ecuador* foundation (ERPE) owns the Sumak Life quinoa processing and export company. Sumak Life is the leading exporter of quinoa at national level, and also of organic quinoa with an average 200 tonnes/year exported between 2007 and 2011.

In this context of a socially responsible and solidarity economy, the organizing processes and control of the chain continue to be in the hands of external players, rather than of the producers themselves. This is contrary to the desired goal of empowering and offering development opportunities to the

families of quinoa growers, the very principles at the core of fair trade. This confusion surrounding the commercial functions and support functions of the foundations has led to the emergence of related activities. Quinoa growing, therefore, does not represent the sole source or even main source of income for families. The conflict between helping families and building the capacity of producers' organizations, has led to divisions among the quinoa producers from the province of Chimborazo – the leading quinoa-producing zone in the country, with some 2 000 quinoa-producing families, and an annual production of 500–1 000 tonnes. Thus, the indigenous peasant organization, Coprobich, which had successfully united most of the producers from Chimborazo and comprised 1 600 members, decided to break away from the ERPE foundation and its Sumak Life company, in order that producers could certify, process and export their own quinoa. This proposal was not accepted by the ERPE foundation, which wanted to continue providing technical assistance, and handling processing and marketing on behalf of the producers. The result was a split, with around half the members staying with Coprobich, and the other half forming the Sumak Tarpuy organization within ERPE.

In this debate about management models for the quinoa chain and agrifood chains in general, few players understand the the independent development of peasant organizations. The challenge lies in managing the key stages of processing and marketing, while guaranteeing the fair trade proposal of creating short trading channels and fostering a more direct and fairer relationship between producer and consumer.

The experience of Mapuche producers from southern Chile

In the south of Chile, quinoa – or *dawe* as the Mapuches call the grain – is a secular plant grown by women in their gardens. It is grown together with other local horticultural species using traditional farming techniques. The NGO, CET-SUR, spent more than 15 years helping the Mapuches identify, harvest and disseminate local varieties, exchange knowledge and techniques, and recover traditional uses. Thus CET-SUR drew up, in collaboration with communities, a self-certification protocol for short chains, guaranteeing the authenticity of Mapuche

quinoa on local and regional markets and among culinary chefs. The association of stakeholders or interested producers, Mapuche communities, municipal employees, local tour operators, researchers etc., established a new approach. The Centre for Innovation and Mapuche Entrepreneurship (*Centro de Innovación y Emprendimiento Mapuche* – CIEM) is following the same direction: the project's steering committee involves Mapuche communities working alongside NGOs. The Mapuche experience highlights the fact that territorial construction must be built on social (mutual assistance, barter etc.), cultural (cosmogony, rituals, culinary traditions etc.) and agronomic (adaptation of varieties, association of species in shifting cultivation, biological control, fertility management etc.) values – the very values included in Mapuche agri-ecological practices. Support for communities, initially in the form of technical and economic assistance, has evolved into the recognition of a product marked by the Mapuche identity and related practices.

Outlook and Concluding remarks

The different ways in which producers organize market relations underline their adaptability and capacity for change, with an increasing number and variety of players in the quinoa value chain: new products, new quality labels, new governance models, new alliances and new institutional practices.

The Bolivian, Peruvian, Ecuadorian and Chilean experiences presented in this chapter concerning the quinoa regeneration process have much in common, but there are differentiating features. The export trend which began in Bolivia in the 1990s spread to the other countries. In Bolivia, as well as in Peru or Ecuador, the socially responsible solidarity model (producer cooperatives and associations that manage the quinoa value chain from processing to export) competes with the capitalist model, associated with corporate social responsibility and the implementation of social programmes in parallel with their contractual strategies.

Faced with the development of the commercial growth of quinoa in non-traditional zones of the Andean countries (e.g. the Peruvian coast) and in foreign countries (e.g. the United States of America and France), the Andean producers have found new ways of improving and protecting their products: protected designation of origin for quinoa (developing rapidly),

socially responsible trade, and new short food chains. In this perspective, it is vital to: i) safeguard the cultivation biodiversity of quinoa in relation to the management of these innovating chains ii) adopt appropriate governance of quinoa-growing territories.

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