

CDE POLICY BRIEF



Photo: S. Jaquet

Agricultural cooperatives: Finding strength in numbers

Smallholder farmers grow a major share of the food consumed around the world and preserve rich, biodiverse landscapes.¹ But despite their fundamental importance, many small farmers lead lives of deepening vulnerability – caught between subsistence strategies threatened by ecological degradation and commercial food systems that devalue them as cheap labour. Alternative agricultural models are urgently needed. One long-running movement still shows major untapped potential: that of agricultural cooperatives. These can enable smaller food producers to band together and access markets without losing control of their land, livelihoods, or food sovereignty. Cooperatives have been expanded in various developing countries where smallholders face diverse pressures, including from international markets. Today, about a billion people are involved in cooperatives – many of them successful agricultural businesses combining values and principles of fairness and ecological sustainability.² But more must be done.

Commodity market roller-coaster

Despite trends towards large-scale industrial agriculture, *smallholding farmers* still produce a major share of the food consumed globally (on less than 30% of all agricultural land). According to recent estimates, farms smaller than five hectares produce at least half the world's food.³ And in sub-Saharan

Africa and Asia, for example, farms smaller than two hectares provide over 70% of people's food calories.

Globalized *agricultural export markets* are often portrayed as a major development opportunity for smallholders, their families, and communities. However, these evolving "commodity"

KEY MESSAGES

- Smallholding family farmers grow most of our food, but do not enjoy the deserved economic fruits of their labour. In today's global "commodity"-oriented food systems, other "value chain" actors like traders, food processing firms, and retailers capture most of the profits.
- Agricultural cooperatives can strengthen small farmers' economic position by bringing them together in a shared enterprise. Emphasizing joint ownership and democratic control, cooperatives can enable small farmers to access markets while mitigating risks.
- The cooperative model has yet to realize its full potential for small farmers and agricultural labourers. Needed improvements include expanding the role of cooperatives in value chains and linking them more directly to stable consumer bases.
- Policymakers should create an enabling environment for cooperatives with tax and legal incentives, direct subsidies, trainings, awareness-raising efforts, and preferential trade terms for sustainably produced goods (including processed items).



The research featured here is focused on Bolivia and Laos.



Photo: J. Jacobi

export markets bear significant risks, owing especially to speculation-enhanced rollercoaster price dynamics and arguably unfair distribution of risks and profits. The examples of quinoa, a recently popularized “superfood”, and coffee, a still-growing global mainstay, are illustrative of key issues.

In the case of coffee, smallholders constitute over 80% of growers in developing countries,⁴ but they are largely left out of the wider value chains (e.g. processing or retail) and resulting profits.⁵ The situation has worsened significantly in recent years: coffee prices have fallen by two-thirds, and coffee farmers’ earnings have halved in real terms since the 1980s, despite ongoing retail market growth.⁶ Overall, the capture of global agricultural value chains by big multinational firms – including hedge funds, commodity traders, large-scale food processing firms and retailers, and related conglomerates – has financialized our food systems and relegated smallholders to the role of *cheap producers of raw goods*.⁷ These smallholders’ socio-economic vulnerability further increases if they abandon traditional practices of subsistence and crop diversity, which enable them to feed themselves and maintain livelihoods when markets fail.

The dependence of smallholder farmers on volatile global crop prices can also have serious *ecological* consequences on the ground – even, or especially, during market “booms”. Worldwide price spikes can cause uncontrolled expansion of agricultural frontiers, deforestation, and soil degradation⁸ as local smallholder farmers scramble to compete and grab tiny crumbs of the global profit pie.⁹

Prices for quinoa, grown mainly in Peru and Bolivia, began soaring about a decade ago in response to heightened global demand – especially from Europe and North America. In Bolivia, the so-called quinoa boom spurred a massive increase in production and farmers involved. Between 2004 and 2013, Bolivia’s land area under quinoa cultivation nearly quadrupled, from 38,000 to 147,000 hectares. Smallholders were responsible for much of the increase.¹⁰

In 2014, however, quinoa prices began falling about as fast as they had risen. No longer able to break even, much less make a profit, many small producers were forced to quit their farms and take up other jobs – sometimes in neighbouring countries.¹¹

Coffee-farming families worldwide currently find themselves in a similar situation, with slumping prices – on average earning them less than a cent for every cup sold – that often fail to cover even the costs of production. These “commodity” price crises recur time and again. They can push smallholders into persistent poverty, debt, and worse¹² – suicides among smallholder farmers are a tragically common occurrence in both the global South and North.¹³

Reducing such vulnerabilities among smallholders while feeding growing populations requires more than technological solutions emphasizing productivity gains.¹⁴ It also demands social and economic solidarity-focused approaches that strengthen small farmers by bringing them together.¹⁵

Agricultural cooperatives – building power, sharing gains

Agricultural cooperatives are one such approach. Their aim is to build worker power collectively, pool resources, and better distribute benefits, in line with the broader cooperative movement.¹⁶ Their emphasis on worker *ownership* of businesses distinguishes them from unions. Founded in 1895, the International Cooperative Alliance (ICA) defines cooperatives as *people-centred enterprises jointly owned and democratically controlled by and for their members to realize their common socio-economic needs and aspirations*.¹⁷ Different types exist. Some focus on obtaining supplies or credit, others on production of goods, marketing and sales, or various combinations.¹⁸

In today’s globalized economy, cooperatives offer smallholders a way of banding together and accessing volatile, competitive regional and/or global value chains without losing all their power and autonomy. By enabling smaller – often family-owned – farm units to survive and operate in concert, agricultural cooperatives can realize the benefits of both small-scale cultivation (e.g. maintaining biodiversity) and economies of scale (e.g. reduced costs). This offers farmers a vital alternative to “surrendering” and becoming wage labourers on large-scale commercial monocultures or abandoning farming altogether.

Benefits of cooperatives in developing countries

Pooling of resources. Cooperatives can increase their members’ power in specific food sectors by leveraging their combined resources, including land, machinery, goods produced, savings, and more. In Laos, the coffee sector is split between small private growers, large companies, and a handful of new cooperatives. Most small growers must sell their coffee crops to middlemen as relatively cheap red cherries or dried beans. But new cooperative members in Laos successfully expanded their role in the value chain with *collective* investments: they established their own *wet-processing facilities* that enable them to sell their combined output to external buyers as higher-quality, higher-priced *green coffee*. In Bolivia, some of the first cooperatives were founded in the 1970s to enable small farmers to purchase and *share* expensive assets like tractors.¹⁹ Two Bolivian quinoa cooperatives (CECAOT and ANAPQUI) with such origins were able to survive the recent quinoa price collapse. Today, they remain among the largest Bolivian exporters of the crop.²⁰

Stabilizing farmers' incomes and distributing profits fairly. Overall, operating strategically as a group strengthens cooperative members' economic resilience. Equitable sharing of farm equipment and marketing infrastructure lowers members' upfront and ongoing business costs. And putting everyone's crop yields together in one large pot enhances members' bargaining power vis-à-vis buyers or processing companies. In Bolivia's post-boom period, when global quinoa prices were fluctuating wildly, cooperatives managed to secure consistently higher prices for their members – up to twice as much as market prices offered by local retailers, in some cases.²¹ In Laos, cooperatives guarantee a minimum price for the coffee at the beginning of the year – no such guarantee is offered by conventional big buyers.

Linking producers to certified markets. Key to cooperatives' success in obtaining better prices has been their strategy of producing goods for certified specialty markets, such as *organic* or *fair trade*. Farm goods marketed under internationally recognized certification *labels* – such as Max Havelaar or Bird Friendly – enjoy increasing popularity. Growing numbers of “conscious consumers”, especially in the global North, appear willing to pay more for labelled goods that fulfil clear, trustworthy standards of sustainable production. In Bolivia, between 2013 and 2019, market prices for certified organic quinoa compared to conventional quinoa were 17%–46% higher.²² In Laos, cooperatives selling value-added (e.g. wet-processed or roasted) niche-market coffee can capture as much as 80% of the final product's value.²³

Ecological and social synergies. As these certification examples suggest, cooperatives readily lend themselves to more ecological and socially acceptable modes of food production. In Laos, much of the coffee produced by cooperatives comes from biodiverse systems, in which coffee is cultivated beneath (e.g. fruit) trees and sometimes alongside vegetables. In Bolivia, unique synergies between quinoa cooperatives and traditional community authorities – based on overlapping or complementary social rules and norms – were found to produce more sustainable governance of natural resources²⁴: for instance, traditional rules on land inheritance and cooperative rules on plot sizes reinforced each other to prevent uncontrolled growth of cultivation areas. Notably, women workers also tend to fare better in cooperatives than in comparable private enterprises, receiving more training and chances for advancement.²⁵

Keys to 'sustainable' cooperatives Nevertheless, current cooperative models have yet to reach their full potential for farmers. Several areas merit attention:

Improving affordability and local anchoring of certification. Notwithstanding their benefits, dominant certification schemes (e.g. organic) can and should be improved. For one, the higher crop prices they offer farmer cooperatives do not always translate into higher net revenues for producers. The process of obtaining and maintaining labels from *external certifiers* – who are typically for-profit enterprises – can be long, administratively demanding, and ultimately expensive. This, and the enhanced (e.g. labour) costs of sustainable production itself, can eat away at cooperatives' shared bottom line – and even prevent especially vulnerable farmers from joining such movements at all.²⁶ Multiplication of sometimes redundant external labels is another problem.²⁷ In the future, *local identity labels* with *transparent self-defined sustainability criteria* and mutual low-cost certification may be a better option for agricultural cooperatives. Steps in this direction have been made with new peer-managed *Participatory Guarantee Systems* (<https://bit.ly/2Rel5bx>).

Adding value at home and linking directly to stable consumer bases. Despite gains in different areas, too many agricultural cooperatives remain stuck in lower value-added stages of production (e.g. crop growing). They could strengthen their economic sustainability by deliberately *capturing more of the value chain* and *networking with one another*. This means significantly branching out and diversifying their activities to take over stages like processing (e.g. drying or roasting), packaging, delivering, and even retail of finished goods – anything that brings them closer to end consumers, also locally. The Bolivian cooperative El Ceibo, for example, currently only exports 30% of its cocoa beans (formerly 100%) because the majority is now sold domestically as finished chocolate. Notably, cooperatives should also actively seek, in advance, to *identify and cultivate stable consumer bases* for their value-added products – whether roasted coffee, pasta, chocolate, flour, dried fruit, or washed and delivered fresh fruits and vegetables.²⁸ Public procurement programmes and new regional/domestic markets appear to bear vital potential for cooperatives in the global South, if properly nurtured and linked.

Strengthening egalitarian functioning and governance. Finally, though pledged to democratic principles and worker empowerment, farmer cooperatives can still

Box 1. Cooperative lessons from Bolivia and Laos

Conducted within the FATE project (www.fate.unibe.ch), CDE studies on farmer cooperatives for quinoa, in Bolivia, and for coffee, in Laos, highlight several of the strengths of this production model for smallholders in distinct settings. In Bolivia's southern Altiplano, research by Tschopp et al. (2018) showed how cooperative rules and traditional authorities' rules worked complementarily to limit local ecological harms, such as unchecked land conversion, during the post-2010 period of booming global demand for quinoa.³¹ Later, when global quinoa prices crashed, cooperatives were able to maintain members' livelihoods by diversifying and increasing their role in value chains. The cooperative SOPROQUI, for example, invested some of its boom-era earnings in equipment to make bread and pastries from quinoa flour, successfully marketing it to local school breakfast programmes, while the “mother” cooperative ANAPQUI began making and selling quinoa-based pasta.

In Laos, recent CDE research on the state-supported Bolaven Plateau Coffee Producers Cooperative, or CPC,³² comprising several coffee producer groups in this fertile arabica coffee-growing region,³³ highlights how catering to specialty markets has benefitted cooperative members. Shortly after its foundation, the Laos coffee cooperative obtained fair trade and organic certifications in the European (EU), Asian (IFOAM), and North American (NOP) coffee markets. This, and investment in common coffee-processing facilities, has enabled members to fetch premium prices for their high-quality coffee.³⁴ In 2019, the government of Laos applied for an official *Geographical Indication* marker for Bolaven coffee to further raise its profile. CDE researchers (Jaquet et al. 2018) also produced several short films on the project (<https://bit.ly/3dDmWQD>).

reproduce social inequalities (e.g. patriarchy, ethnic discrimination) in local settings – just like any other human system or small community – if not embedded in more broadly ambitious rights-based frameworks or shared visions.²⁹ Further, problems of corruption and competences can also arise. Cooperatives can struggle to find skilled, stable leadership. To address these issues, it is crucial that governments support high-quality education, ongoing rights-based sensitization, and legal/administrative training in rural areas.³⁰

Maurice Tschopp, PhD

Senior Research Scientist
Centre for Development and Environment (CDE)
University of Bern, Switzerland
maurice.tschopp@cde.unibe.ch

**Stephanie Jaquet, PhD**

Agriculture Risk Profiles Coordinator
Centre for International Tropical Agriculture (CIAT),
Africa Hub
Nairobi, Kenya
S.Jaquet@cgiar.org

**Johanna Jacobi, PhD**

Senior Research Scientist
Centre for Development and Environment (CDE)
University of Bern, Switzerland
johanna.jacobi@cde.unibe.ch

**Maliphone Douangphachanh, PhD**

Lecturer, Faculty of Social Sciences
National University of Laos
maliphoned@gmail.com

**Sabin Bieri, PhD**

Head of Socio-Economic Transitions Cluster
Centre for Development and Environment (CDE)
University of Bern, Switzerland
sabin.bieri@cde.unibe.ch



Policy implications of research

Put cooperatives on the sustainability agenda

Cooperatives call attention to an underappreciated sustainability challenge: the precarious status of workers in our economies. Agricultural systems – even “organic” ones – that leave those who feed us struggling to make ends meet cannot be considered meaningfully sustainable. Cooperatives offer a much-needed way for smallholder farmers and other labourers to build collective power, stabilize their economic position within volatile commodity markets, and invest in themselves and their communities. Cooperatives can contribute to sustainable development goals 2, on “zero hunger”, and 12, on “responsible consumption and production”.

Create an enabling environment for cooperatives in producer countries

Countries in the global South like Bolivia, Laos, and others that greatly depend on agriculture, should use their policy space to ease creation, maintenance, and strengthening of cooperatives. Governments should treat cooperatives favourably in legal and tax matters, recognizing their democratizing social mission and stabilizing distributional (ownership/risk/benefit) function in society. States can also support them with minimum farm gate prices³⁵ as well as grants or low-/no-interest credit lines for start-up or to bridge financial gaps between harvest and sale. Further, public purchasing programmes, such as for school meals, can be used to ensure stable consumer bases for cooperatives. Finally, states should offer cooperatives high-quality extension services – oriented on pesticide-free production, for example – as well as targeted staff training in management and administration.

Promote awareness and purchase of cooperative products among consumers

State actors should also raise awareness and stimulate consumer demand and appreciation for goods produced by cooperatives (e.g. via subsidized advertising) – especially, but not only, in global North countries with relatively high purchasing power. European countries and others that rely on foreign goods for much of their food should implement preferential terms for imports produced by cooperatives and similar solidarity- economy institutions, together with more well-known sustainability criteria like certified organic. This could be done within existing and future *trade agreements* (e.g. EU–Mercosur), for example by preferentially reducing tariffs on sustainably produced goods. Crucially, this should include processed goods (e.g. chocolate), too, not just raw materials (e.g. cacao). Potential also lies in new digital means of directly linking cooperative producers and consumers.

Suggested further reading

Castella JC, Bouahom B. 2014. Farmer cooperatives are the missing link to meet market demands in Laos. *Development in Practice* 24(2):185–198. <https://doi.org/10.1080/09614524.2014.885495>

ILO [International Labour Organization]. 2017. *Cooperatives and the Sustainable Development Goals: A contribution to the 2030 Agenda for Sustainable Development*. Geneva, Switzerland: ILO. https://www.ilo.org/global/topics/cooperatives/areas-of-work/WCMS_445131/lang--en/index.htm

Jacobi J, Schneider M, Pillco Mariscal M, Huber S, Weidmann S, Bottazzi P, Rist S. 2015. Farm resilience in organic and non-organic cocoa farming systems in Alto Beni, Bolivia. *Agroecology and Sustainable Food Systems* 39:798–832. <https://doi.org/10.1080/21683565.2015.1039158>

Tschopp M. 2018. The quinoa boom and the commoditisation debate: Critical reflections on the re-emergence of a peasantry in the Southern Altiplano. *Alternautas* 4(2):6–85. <https://bit.ly/2COAS5x>

Tschopp M, Bieri S, Rist S. 2018. Quinoa and production rules: How are cooperatives contributing to governance of natural resources? *International Journal of the Commons* 12(1):402–427. <http://doi.org/10.18352/ijc.826>

Centre for Development and Environment (CDE)
University of Bern
Mittelstrasse 43
3012 Bern
Switzerland
www.cde.unibe.ch

This issue

Series editor: Anu Lannen
Editor: Anu Lannen
Design: Simone Kummer
Printed by Varicolor AG, Bern



This policy brief is licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence. See <http://creativecommons.org/licenses/by/4.0/> to view a copy of the licence.

ISSN 2296-8687

The views expressed in this policy brief belong to the author(s) concerned and do not necessarily reflect those of CDE as a whole, the University of Bern, or any associated institutions/individuals.

Citation: Tschopp M, Jaquet S, Jacobi J, Douangphachanh M, Bieri S, Lannen A. 2020. *Agricultural Cooperatives: Finding Strength in Numbers*. CDE Policy Brief, No. 16. Bern, Switzerland: CDE.

Keywords: Cooperatives, smallholders, Bolivia, Laos, value chains, commodities

CDE policy briefs provide useful, timely research findings on important development issues. The series offers accessible, policy-relevant information on topics such as global change, innovations, sustainable development, natural resources, ecosystem services, governance, livelihoods, and disparities. The briefs and other CDE resources are available at: www.cde.unibe.ch

References and notes

- ¹ Rist S, Bürgi Bonanomi E, Giger M, Hett C, Scharrer B, Jacobi J, Lannen A. 2020. *Variety is the Source of Life: Agrobiodiversity Benefits, Challenges, and Needs*. Swiss Academies Factsheet 15(1). Bern, Switzerland: Swiss Academies of Arts and Sciences. <http://www.swiss-academies.ch/en/index/Publikationen/Swiss-Academies-Factsheets.html>
- ² ILO [International Labour Organization]. 2017. *Cooperatives and the Sustainable Development Goals: A contribution to the 2030 Agenda for Sustainable Development*. Geneva, Switzerland: ILO. https://www.ilo.org/global/topics/cooperatives/areas-of-work/WCMS_445131/lang--en/index.htm
- ³ Ricciardi V, Ramankutty N, Mehrabi Z, Jarvis L, Chookolingo B. 2018. How much of the world's food do smallholders produce? *Global Food Security* 17:64–72. <https://doi.org/10.1016/j.gfs.2018.05.002>; Herrero M, Thornton PK, Power B, Bogard JR, Remans R, Fritz S, Gerber JS, Nelson G, See L, Waha K, Watson RA. 2017. Farming and the geography of nutrient production for human use: a transdisciplinary analysis. *The Lancet Planetary Health* 1(1):e33–42. [https://doi.org/10.1016/S2542-5196\(17\)30007-4](https://doi.org/10.1016/S2542-5196(17)30007-4); Samberg LH, Gerber JS, Ramankutty N, Herrero M, West PC. 2016. Subnational distribution of average farm size and smallholder contributions to global food production. *Environmental Research Letters* 11(12):124010. <http://iopscience.iop.org/1748-9326/11/12/124010>
- ⁴ FF [Fairtrade Foundation]. Coffee farmers. *Fairtrade Foundation*. London, UK: FF. Accessed 6 May 2020. <https://www.fairtrade.org.uk/Farmers-and-Workers/Coffee>
- ⁵ Hallam D. 2003. *Falling Commodity Prices and Industry Responses: Some Lessons from the International Coffee Crisis*. Rome, Italy: Food and Agriculture Organization. <http://www.fao.org/tempref/docrep/fao/006/y5117E/y5117E00.pdf#page=9>
- ⁶ Panhuysen S, Pierrot J. 2018. *Coffee Barometer*. The Hague, The Netherlands: Hivos. <https://www.hivos.org/assets/2018/06/Coffee-Barometer-2018.pdf>
- ⁷ Clapp J. 2015. Distant agricultural landscapes. *Sustainability Science* 10:305–316. <https://doi.org/10.1007/s11625-014-0278-0>; Bernstein H. 1986. *Capitalism and petty commodity production*. *Social Analysis: The International Journal of Social and Cultural Practice* 20:11–28. www.jstor.org/stable/23169434
- ⁸ FAO [Food and Agriculture Organization]. 2017. *The Future of Food and Agriculture: Trends and Challenges*. Rome, Italy: FAO. <http://www.fao.org/3/a-i6583e.pdf>
- ⁹ Ordway EM, Asner GP, Lambin EF. 2017. Deforestation risk due to commodity crop expansion in sub-Saharan Africa. *Environmental Research Letters* 12(4):044015. <https://iopscience.iop.org/article/10.1088/1748-9326/aa6509/pdf>; Mayrand K, Paquin M, Dionne S. 2005. *From Boom to Dust? Agricultural Trade Liberalization, Poverty, and Desertification in Rural Drylands: The Role of UNCCD*. Montréal, Canada: Unisféra International Centre. https://unisfera.org/sn_uploads/0Unisfera___From_Boom_to_Dust___Final.pdf
- ¹⁰ Statistics from FAOSTAT: <http://www.fao.org/faostat/en/#data>. See also: Winkel T, Bommel P, Chevarría-Lazo M, Cortes G, Del Castillo C, Gasselin P, Léger F, Nina-Laura JP, Rambal S, Tichit M, Tourrand JF. 2016. Panarchy of an indigenous agroecosystem in the globalized market: The quinoa production in the Bolivian Altiplano. *Global Environmental Change* 39:195–204. <https://doi.org/10.1016/j.gloenvcha.2016.05.007>
- ¹¹ Tschopp MN. 2018. The quinoa boom and the commoditisation debate: Critical reflections on the re-emergence of a peasantry in the Southern Altiplano. *Alternautas* 4(2):67–85. <https://bit.ly/2Rg08x4>
- ¹² Oberlack C, Tejada L, Messerli P, Rist S, Giger M. 2016. Sustainable livelihoods in the global land rush? Archetypes of livelihood vulnerability and sustainability potentials. *Global Environmental Change* 41:153–171. <https://doi.org/10.1016/j.gloenvcha.2016.10.001>
- ¹³ WHO/FAO [World Health Organization/Food and Agriculture Organization]. 2019. *Preventing Suicide: A Resource for Pesticide Registrars and Regulators*. Geneva, Switzerland: WHO/FAO. <https://bit.ly/3frVt5x>; Kennedy J, King L. 2014. The political economy of farmers' suicides in India: indebted cash-crop farmers with marginal landholdings explain state-level variation in suicide rates. *Global Health* 10(1):16. <https://doi.org/10.1186/1744-8603-10-16>; Weingarten D. 2018. Why are America's farmer's killing themselves? *The Guardian*. 11 December 2018. <https://www.theguardian.com/us-news/2017/dec/06/why-are-americas-farmers-killing-themselves-in-record-numbers>; Zinke O. Tabu-thema: Selbstmorde von Landwirten. *agrarteheute*. 22 May 2019. <https://www.agrarheute.com/land-leben/tabu-thema-selbstmorde-landwirten-554007>
- ¹⁴ Ericksen PJ, Ingram JS, Liverman DM. 2009. Food security and global environmental change: Emerging challenges. *Environmental Science and Policy* 12(4):373–377. <https://doi.org/10.1016/j.envsci.2009.04.007>
- ¹⁵ Van der Ploeg JD, Jingzhong Y, Schneider S. 2012. Rural development through the construction of new, nested, markets: Comparative perspectives from China, Brazil and the European Union. *Journal of Peasant Studies* 39(1):133–173. <https://doi.org/10.1080/03066150.2011.652619>
- ¹⁶ Levay C. 1983. Agricultural co-operative theory: a review. *Journal of Agricultural Economics* 34(1):1–44. <https://doi.org/10.1111/j.1477-9552.1983.tb00973.x>

References and notes

- ¹⁷ ICA [International Co-operative Alliance]. *What is a Co-operative?* Brussels, Belgium: ICA. Accessed 6 May 2020. <https://www.ica.coop/en/cooperatives/what-is-a-cooperative>
- ¹⁸ FAO [Food and Agriculture Organization]. 2012. *Agricultural Co-operatives: Key to Feeding the World*. Rome, Italy: FAO. http://www.fao.org/fileadmin/templates/getinvolved/images/WFD2012_leaflet_en_low.pdf
- ¹⁹ Laguna P. 2011. *Mallas y flujos: acción colectiva, cambio social, quinua y desarrollo regional indígena en los Andes Bolivianos* [PhD thesis]. Wageningen, The Netherlands: Wageningen University. <https://research.wur.nl/en/publications/mallas-y-flujos-acci%C3%B3n-colectiva-cambio-social-quinua-y-desarroll>
- ²⁰ SF [Sin Fronteras]. *Bolivia produce al año 8.000 toneladas quinua real*. La Paz, Bolivia: SF. Accessed 6 May 2020. <http://www.sinfronteras.com.bo/bolivia-produce-al-ano-8-000-toneladas-quinua-real/>
- ²¹ Tschopp M, Bieri S, Rist S. 2018. Quinoa and production rules: How are cooperatives contributing to governance of natural resources? *International Journal of the Commons* 12(1):402–427. <http://doi.org/10.18352/ijc.826>
- ²² See <http://laquinua.blogspot.com/2018/07/> for complete list of quinoa prices.
- ²³ Galindo J, Sallée B, Manivong P, Mahavong P, David A, Homevongsa V, Mongpadith S, Guitet C. 2007. *Participative Analysis of Coffee Supply Chain in Lao PDR*. Study prepared for Groupe de Travail Café (GTC). Vientiane, Lao PDR: GTC. 2007. <http://lad.nafri.org.la/fulltext/2003-0.pdf>
- ²⁴ Tschopp MN. 2018. The quinoa boom and the commoditisation debate: Critical reflections on the re-emergence of a peasantry in the Southern Altiplano. *Op. cit.*
- ²⁵ Ludi E, Amsalu A, Chiuri W, Haller T, Mbeyale G, Mhando D. 2011. Sustainable livelihoods for coffee producers in East Africa: Is producing speciality coffee a way out of poverty? In: Wiesmann U, Hurni H, editors; with an international group of co-editors. 2011. *Research for Sustainable Development: Foundations, Experiences, and Perspectives. Perspectives of the Swiss National Centre of Competence in Research (NCCR) North-South*. University of Bern, Vol. 6. Bern, Switzerland: Geographica Bernensia, 640 pp. <https://bit.ly/3cgBeGO>
- ²⁶ ILO [International Labour Organization]. 1984. *Basic Economics of an Agricultural Co-operative: A Learning Element for Staff of Agricultural Cooperatives*. Geneva, Switzerland: ILO. https://www.ilo.org/global/topics/cooperatives/publications/WCMS_628570/lang--en/index.htm
- ²⁷ Liu P. 2010. Voluntary environmental and social labels in the food sector. In: Albert J, editor. 2010. *Innovations in Food Labelling*, pp. 117–136. Cambridge, UK: Woodhead Publishing. <https://doi.org/10.1533/9781845697594.117>
- ²⁸ Esim S. 2017. *Cooperatives and the Sustainable Development Goals*. Public seminar co-hosted by JJC and ILO Tokyo, International Labour Organization. 7 September 2017. Geneva, Switzerland: ILO. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---coop/documents/presentation/wcms_574475.pdf
- ²⁹ Blaikie P. 2006. Is small really beautiful? Community-based natural resource management in Malawi and Botswana. *World Development* 34(11):1942–1957. <https://doi.org/10.1016/j.worlddev.2005.11.023>; Agrawal A, Gibson CC, editors. 2001. *Communities and the Environment: Ethnicity, Gender, and the State in Community-based Conservation*. New Brunswick, NJ, USA: Rutgers University Press. <https://bit.ly/3baKqKy>
- ³⁰ Thompson S. 2015. Towards a social theory of the firm: worker cooperatives reconsidered. *Journal of Co-operative Organization and Management* 3(1):3–13. <https://doi.org/10.1016/j.jcom.2015.02.002>
- ³¹ Tschopp M, Bieri S, Rist S. 2018. Quinoa and production rules: How are cooperatives contributing to governance of natural resources? *Op. cit.*
- ³² C.P.C Bolaven Plateau Coffee Producers Cooperative: <http://www.cpc-laos.org/>
- ³³ Castella JC, Bouahom B. 2014. Farmer cooperatives are the missing link to meet market demands in Laos. *Development in Practice* 24(2):185–198. <https://doi.org/10.1080/09614524.2014.885495>
- ³⁴ Galindo J, Sallée B, Manivong P, Mahavong P, David A, Homevongsa V, Mongpadith S, Guitet C. 2007. *Op. cit.*
- ³⁵ Myers A. Ghana, Côte d'Ivoire set to raise cocoa farmgate price in October. *Confectionery News*. Accessed 6 May 2020. <https://www.confectionerynews.com/Article/2019/08/07/Ghana-Cote-d-Ivoire-set-to-raise-cocoa-farmgate-price-in-October>