Food and Agriculture Organization of the United Nations

INRA SCIENCE & IMPACT

CONSTRUCTING MARKETS FOR AGROECOLOGY

An analysis of diverse options for marketing products from agroecology

Constructing markets for agroecology

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Published by
the Food and Agriculture Organization of the United Nations (FAO)
and
Institut National de la Recherche Agronomique (INRA)

Rome, 2018

Recommended citation

FAO. 2018. *Constructing markets for agroecology – An analysis of diverse options for marketing products from agroecology*, by Loconto, A., Jimenez, A. & Vandecandelaere, E. Rome, Italy.

Cover photographs
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ISBN

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Foreword

Our planet is facing important challenges in the context of climate change and population growth that question its capacity to feed people in the future. Sustainable development is crucial. The 2030 Agenda for Sustainable Development adopted by the United Nations provides a roadmap with sustainable development goals (SDGs), in particular SDG 12 on sustainable production and consumption patterns, which links with other goals such as the elimination of hunger and conservation of the environment through a food systems approach. At global and local levels, food systems need to be transformed or enhanced, so as to ensure the multidimensional goal of sustainability. In this perspective, one of the key recommendations of the Second International Conference on Nutrition ICN2 (November 2014) towards sustainable food systems for healthy diets, is to strengthen local food production and processing, especially by supporting smallholders and family farmers. Following up ICN2, the International Symposium on Sustainable Food Systems for Healthy Diets and Improved Nutrition, jointly organized by FAO and WHO (December 2016), called for a change in paradigm from merely supplying food to providing high-quality diets to nourish people. It is therefore of paramount importance to understand and support transformations at local level that enhance sustainable food systems for healthy diets, specifically looking at mechanisms for increasing availability and access to food products for high-quality diets. In particular, much needs to be done in linking sustainable agricultural practices with fair and sustainable market-based exchanges.

An important driver for enhancing sustainable food systems lies in agroecology. Following the International Symposium on Agroecology for Food Security and Nutrition organized by FAO in 2014 and subsequent regional symposia, there is now international recognition that agroecology has the potential to facilitate a transition towards more productive, sustainable and inclusive food systems worldwide by enabling countries to produce healthy and nutritious food while protecting the environment and ensuring social inclusion.

Regarding the link between sustainable agricultural practices and market exchanges, small-scale and family farmers have demonstrated their significant ability to innovate and collectively find practical solutions to their local sustainability problems in relation to their agricultural and market practices, as highlighted in a recent FAO-INRA study (FAO, 2016a).

Building on knowledge about innovative markets for smallholders and agroecology as key modalities towards more sustainable food systems, this study aims at understanding the construction of markets for products from agroecology, from the perspective of supporting the conditions of their emergence and their scaling up.

The publication provides a unique approach to understanding how markets are constructed for agroecological products, while at the same time supporting small-scale actors in their existing initiatives for producing and marketing their products from agroecology, in order to contribute to more sustainable food systems.

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Preface

The Policy Recommendations on Connecting Smallholders to Markets recently adopted by the Committee on World Food Security (CFS) highlighted the importance of markets linked to local, national and regional food systems as the most remunerative for smallholders and beneficial for food security and rural economies. They noted that "despite their importance, these markets are often overlooked in data collection systems, which impacts negatively on the evidence base for informing public policies" and urged the Rome-based agencies to help fill this data gap, in collaboration with smallholders' organizations.

This study is the first attempt to begin to respond to this recommendation. Building on the recent study *Innovative markets for sustainable agriculture. How innovations in market institutions encourage sustainable agriculture in developing countries* (FAO, 2016a), and recognizing the importance of agroecology in contributing to sustainable food systems, this exploratory study examines in detail 12 initiatives that have successfully built markets for agroecological products. It also builds on the stakeholders' discussion held during the researcher-practitioner workshop on "innovative approaches for linking sustainable and agroecological production to markets in developing countries" in Bogotá, June 2016.

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Acknowledgements

The authors of this publication are Allison Loconto of the French National Institute for Agricultural Research (INRA), Alejandra Jimenez and Emilie Vandecandelaere of the Nutrition and Food System Division of FAO.

They wish to acknowledge the important contributions of the consultants who contributed to data collection in each of the countries. These consultants are: Belvue Akpatcho and Selene Scotton (Benin); Gonzalo Flores and Ronald Quispe (the Plurinational State of Bolivia); Maurizio Fabroni (Brazil); Gabriel Curilef (Chile); Xueshi Li (China); Jaime Aguirre and Oscar Nieto (Colombia); Ross M. Borja and Pedro J. Oyarzún (Ecuador); Sara Millet Amrani, Marc Barbier, Yuna Chiffoleau and Raphaël Stephens (France); Aida Baimakova (Kazakhstan); Stelio Miguel Joaquim (Mozambique); Wiebke Volkman (Namibia); and Julie Matovu Nakalanda (Uganda).

They would like to thank Florence Tartanac [FAO, Nutrition and Food Systems Division (ESN)] for her overall support in the research. Specifically, they thank Marc Barbier and Yuna Chiffoleau of the French National institute for Agricultural Research (INRA); and Serena Alaimo and Michele Rumiz (Slow Food) for their contributions to the broader research project.

Thanks are extended to those who commented on earlier drafts or contributed insights to the process: Anne Sophie Poisot [FAO, Plant Production and Protection Division (AGP)], Dalia Mattioni and Marcello Vicovaro (FAO, ESN). They also recognize the work of Yuna Chiffoleau (INRA) and Pilar Santacoloma (FAO Subregional Office for Central America) as peer reviewers of the cross-cutting analytical report.

Finally, they thank Simone Morini for coordinating the publication production process, for the layout and cover design, and Roberta Mitchell for copy editing.

Executive summary

The purpose of this study is to explore whether and how products from agroecological production systems are being valued in markets. This exploratory study has been conducted using a conceptual framework from economic sociology. It produced qualitative and descriptive evidence from the perspective of producers, consumers and intermediaries working within specific initiatives. These initiatives are created to ensure that food from agroecological production is exchanged and traded between producers and consumers. They also illustrate how the organization of networks and the creation of "value" form markets for agroecology. The study is based on a meta-analysis of 12 case studies, mainly from developing and emerging countries and one developed country (Benin, the Plurinational State of Bolivia, Brazil, Chile, China, Colombia, Ecuador, France, Kazakhstan, Mozambique, Namibia, Uganda), with the collection of small samples of empirical data (221 personal interviews in total).

What we document here in the case of markets for agroecology are examples of initiatives where actors are capturing value through direct relations, but also through a diversification of their market channels. Specifically, we found evidence of the important role of consumers who are directly influencing the way products are marketed. There is also a correspondingly increased responsibility being taken by producers to develop their own marketing strategies. We found that these markets are dynamic and the actors are strategic in how they position their products and create value for them in the market. It is important to bear in mind that products are not the only goods being valued here – cultural traditions, ideas, vision and knowledge are also being exchanged. Such cases illustrate that markets for agroecological products exist, both within the current institutional arrangements for organic agriculture and also outside them. In fact, one of the key lessons we learned was that locally defining the marketing terms that refer to an *agroecological product* is important, particularly for building a shared understanding that can be used to mobilize local actors in the food system transformation. The definition of an *agroecological* product is different from that of an *organic* one, especially in a country that has a national, publicly regulated organic standard.

In terms of business models, a key feature observed in all the initiatives studied is that market networks are embedded in communities, so that benefits reach producers, consumers and intermediaries alike. In some cases, this was the result of an active "re-embedding" of market exchanges into living communities as part of people's holistic vision of agroecology to include social, economic and community interdependencies alongside ecosystem balance. Although business models are unique to each initiative because of the contexts in which they work and the types of actors involved in the networks, common elements have been identified. First, the initiatives respond to a community need such as supporting: youth development; indigenous and traditional food systems; access to agroecological and healthy food for urban consumers; and market access for smallholders. In addition, producers and consumers are involved in many stages or functions of the food system and participatory decision-making is widely supported in the initiatives. The business model is also inclusive of those who share the initiative's vision. Finally, efficiency is multifaceted, and does not cover only economic aspects, but the initiatives are considered efficient if they are also able to balance the social, cultural and environmental dimensions. In other words, the initiatives have created hybrid missions that touch upon achieving social, environmental, cultural and economic objectives. This finding is in line with the holistic vision of agroecology that focuses on interactions between ecological components.

Diversity of market channels was also highlighted by the study in all the initiatives. The study identified 20 different market channels for agroecological products, in addition to informal barter/exchange and self-provisioning that represent 15 percent on average of farmers' production. These market channels also include conventional markets that represent 33 percent on average of farmers' exchanges. This illustrates that producers are following a market diversification strategy. The most important market channels for agroecological products are: direct sales and on-farm sales, farmers' markets and ecofairs, and restaurants and hotels. The most important benefits from selling/buying directly through a variety of direct sales mechanisms are related to social relationships such as proximity, conviviality and trust.

On average, agroecological market channels (those where both the producer and the consumer know that products are produced agroecologically) account for about 45 percent of the exchanges of the food produced by farmers engaged in the initiative. The greatest challenges for market access are related to transport issues (logistics) and lack of widespread consumer awareness. The logistics concerns were linked to inconsistences in production and challenges in product placing, often a result of poor transport conditions and a lack of adequate post-harvest and processing infrastructure close to the areas of production. In terms of consumer awareness, most of the initiatives reported that intermediaries and consumers lacked information about agroecological products and production practices and were highly influenced by untrustworthy or incorrect information about the safety and price of these products.

Regarding the valuation aspects, the study analyses not only what is meant by "agroecological products" and the qualities searched for by actors, but also the process of qualification and, in particular, how value is communicated and how a price is assigned and perceived as fair. The study found that the value of agroecological food related to its characteristics of organic, healthy, natural, safe food. In the end, the most commonly used definition of agroecological food was a product or a production practice that did not use agrochemicals. On the other hand, the largest percentage of respondents (74 percent) reported that the main reason for joining the initiative was an interest in improving their health. The results suggest that the initiatives do contribute to improving food security and nutrition. There is a general trend whereby producers now include more agroecological food in their diet than they did before being involved in the initiative. Overall, respondents eat agroecological food for 54 percent of their dietary needs, and the majority of the interviewed producers (83 percent) and consumers (88 percent) explained that the food they consume has changed since they joined their initiatives and reported that this change has had positive effects on their diets and physical and/or mental health. This can be explained by the increased access, stability and utilization of agroecological products thanks to the initiative. Finally, with regard to how the concept of agroecology translates into qualities for agroecological food, instead of deriving from a theoretical definition of "agroecology", most respondents focused primarily on the organoleptic qualities of the food itself and on qualities that could be experienced directly by those eating the products, i.e. taste and freshness clearly dominate. Nevertheless, exploring the justifications used by the different actors to explain what they actually mean by quality in the broader context of how they view their food systems, a range of values (including social, cultural, agroecological and nutritional) are being promoted through the initiatives.

Personal contact and direct communication between consumers and producers (through social media, the Internet, personal exchanges, farm visits, etc.) are the principal means of creating value for agroecological quality. While direct communication of quality and price was the method most often used in these cases, we also find evidence of the use of internally managed quality control systems across the 12 cases that enable producers to communicate quality through labels. In these cases, labels are a mix of brand names and certification seals. All the initiatives have some form of quality control related to informal or more formal agroecological established standards (such as organic standards), and farmer-led variations of participatory guarantee systems (PGS) predominate. Labels, found in the majority of the initiatives (eight out of 12), are important as a means to communicate agroecological quality, and the main reason for adopting a label is to create an identity for producers (brand label) or for their vision of agroecology (differentiated label).

As regards price, although respondents reported that prices are established by producers and intermediaries, while consumers are typically price-takers, there is room in all cases to negotiate prices and producers rely upon feedback from consumers and intermediaries to adjust their prices to local market prices and provide discounts to loyal customers. In addition, all consumers are generally aware of the greater costs of production involved, and are willing to pay more in order to ensure that producers are receiving a fair price for their products. Therefore the majority of prices are seen as being fair and are set in a fair way. The consumers in these networks, mainly from the middle-income category compared with the average income where they live, are relatively price insensitive.

As for the forms that markets for agroecology take, all these initiatives have been identified as "nested" markets. On average, there are between four to five different actors working together in network formations (non-hierarchic relationships and each operating within their own organizational structures) and agroecological products change hands about twice in these networks. Based on these criteria, we can classify the supply chains across the 12 initiatives as being "short food supply chains". Based on the diversity

of intermediaries that facilitate market activities and participation in market exchanges, the different initiatives have been organized in four types of market network: information-rich, interactive, sociocultural and diversified. Of the four different types of nested market networks identified, the diversified market network was considered to be the most consistently sustainable according to all actors, while the sociocultural market network was the most sustainable according to producers and intermediaries. This suggests that there is an important role for an intermediary with plural roles in ensuring the sustainability of these initiatives. The more inclusive initiatives are building on existing social networks, but are also expanding, as we found significant response rates related to the role of the initiative as creating a social space for collaboration among actors who traditionally do not socialize. This points to relative network stability for the majority of cases. Based on declared but untapped consumer demand, there is also significant potential for changing the scale of these initiatives, both regarding the size of each group in the network, and the global size of the network made up of the various groups.

In order to be able to provide policy and practical support to encourage these types of initiatives, information was gathered on how different actors perceived the future of their initiatives. Overall, we found that participants were fairly optimistic about the sustainability of their initiatives, with convergence between the perceptions of sustainability by each of the different actors on the criteria for environmental, social and cultural aspects of the markets, but with discrepancies about the economic sustainability of the initiatives. This is a particular concern for consumers and can be linked to what seems to be a consistent response that consumers are not as involved as other actors in the day-to-day running of the initiatives and are therefore less well informed about the financial autonomy of the initiative than those actors who are more involved. Regarding the temporal aspect of sustainability, and how the initiative has evolved over time, the greatest change reported by participants was an increase in the availability of a diverse range of agroecological products on local markets. In parallel, there is also an increase in the diversification of production systems with the objective of responding to specific consumer demand for "difficult to find" products that have nutritive properties or can provide added culinary quality for gourmet purposes.

A scaling-out approach was more common among these initiatives than a strict scaling-up approach. Scaling up usually means vertical growth of a single organization in order to reach an economy of scale, while scaling out refers to the horizontal expansion of the idea that is picked up and implemented by other communities in order to reach widespread coverage. All initiatives have an internal mission of including more farmers and consumers in their initiatives, which requires some vertical growth but mainly requires this type of horizontal growth. There is a point to be made about the right size for these types of initiatives; all the interviewees expressed concern about becoming too big and what this could mean for the values they are trying to promote within their initiatives. Therefore, the conditions of economic success for these types of initiatives are often found when they are able to link up with other similar initiatives to create horizontal networks within which the individual groups focus on their core communities, but exchange knowledge and goods with other local groups in order to provide a greater variety of products and a greater market access to consumers. In these cases, political recognition at policy level and through regulation provides the vertical support for changing their scale of operation.

This market-focused vision of agroecology complements the definitions of agroecology found in the literature. Overall, we see evidence that a socio-economic vision of agroecology is emerging in dynamic and diversified nested markets across a range of developing country contexts. These exploratory results point to a need to take the lessons learned from this research and develop broader surveys that can collect systematic and comparable data across a variety of agroecological, sociocultural, geopolitical and economic food systems so as to reinforce the evidence on how markets for agroecological products contribute to more sustainable food systems for healthy diets, looking at in their economic, environmental and social dimensions, including nutrition.

RECOMMENDATIONS FOR FAO MEMBER COUNTRIES

FAO member countries can support the construction of markets for agroecological products in the following ways.

- Conduct public awareness campaigns about the benefits of agroecology and of diversified diets for producers and consumers alike.
- Enhance local authorities' capacity to design local policies that support agroecological markets through more direct connection between producers and consumers (particularly diversified market networks).
- Recognize that these types of markets are "work in progress" that require public and private collaboration and support – particularly during their infancy. This can be done by providing public facilities to host farmers' markets, fairs and festivals for agroecology.
- Support local input markets by removing subsidies for synthetic inputs, including agroecological and biological inputs in the subsidy schemes, and recognizing farmer-to-farmer exchanges of seeds and other inputs within national legislation.
- Recognize existing agroecological markets by facilitating the registration of agroecological farmers with the trade and food safety authorities, according to standards that are appropriate to their size and production capacity.
- Identify agroecological farmers as an additional category within family farming registries.
- Encourage public procurement from agroecological producers by adapting the procurement protocols to the local realities of agroecological production and ensure that prices reflect the added value of agroecological production (e.g. informal trading relations).
- Encourage farmers, together with intermediaries and consumers, to create price-setting committees so as to enable more transparent and fairer price determination.
- Recognize the participatory guarantee system (PGS) as a valid means to certify organic, ecological and agroecological producers for local and domestic markets.
- Enable consumers to become organized and more active by introducing policies that promote consumer cooperatives and consumer involvement in multistakeholder platforms focused on building local and regional markets.
- Collaborate, using participatory approaches, to collect data on the existing markets for agroecology and sustainable agriculture more generally in order to be able to measure better the importance of these markets for food and nutrition security.

Abstract

This book examines the emerging phenomenon of markets for "agroecological" products and asks two fundamental questions: (i) do they exist? and (ii) what forms do they take? Based on a meta-analysis of 12 case studies from different ongoing initiatives around the world, we focus on how different types of local actors (producers, consumers and intermediaries) create markets for agroecological products. The results show that markets for agroecological products do exist, but are not always separate from organic markets.

Using a conceptual framework from economic sociology, we argue that market channels become agroecological through the specific rules and networks (including material objects such as physical markets, labels and posters) that the initiative has built up to ensure the transmission of knowledge that products are indeed agroecological. This means that they are "work in progress" and cannot be considered as static or completed markets. The resulting market networks have a number of common characteristics: the business models are community based and generally promote a mission to fulfil a social need of the community, participatory decision-making, inclusivity and resource efficiency that goes beyond economic efficiency. The value of agroecological food is found in its characteristics as organic, healthy, natural and safe food that is free from agrochemicals; interviewees focused primarily on the extrinsic organoleptic qualities of the food itself. Market channels for agroecological products are many and diverse – from local on-farm shops to export, with five channels being the most preferred: direct sales, on-farm stalls, farmers' markets or ecofairs, open-air markets and restaurants. Short food supply chains are common and four types of nested market networks can be distinguished for agroecology: information-rich, interactive, diversified and sociocultural. Direct contact between producers and consumers or contact via trusted intermediaries is the most common means to communicate quality, and labels are important in these initiatives as a means to communicate agroecological quality. Specifically, we found evidence of an important role for consumers who are directly influencing the way products are marketed and a correspondingly increased responsibility being taken by producers to develop their own marketing strategies.

The majority of the interviewed producers and consumers explained that the food they consume has changed since they joined their initiatives and reported that this change has had positive effects on their diets and physical and/or mental health. In fact, a lack of agrochemicals and concerns about health were the most used terms to describe the meaning of agroecological food across the cases. Overall, we see evidence that a socio-economic vision of agroecology is emerging in dynamic and diversified nested markets across a range of developing country contexts. Locally defining the marketing terms that refer to "agroecology" is very important, especially for building a shared understanding that can be used to mobilize local actors in the transformation of food systems.

Keywords: agroecology, quality, markets, market channels, valuation, business models, sustainability

Acronyms

ATDP	Akmola Traditional Dairy Producers (Kazakhstan)
CCU	Canasta Comunitaria Utopía (Ecuador)
CFS	Committee on World Food Security
CKK	Kom Kelluhayin Corporation (Chile)
CNAPE	National Council for Ecological Production [*Consejo Nacional de Producción Ecológica*] (Bolivia)
CSA	Community supported agriculture
EAOPS	East African Organic Products Standard
FdlT	*Familia de la Tierra* (Colombia)
FIA	Foundation for Agricultural Innovation (Chile)
HLPE	High Level Panel of Experts on Food Security and Nutrition
IBM	Inclusive business model
IFAD	International Fund for Agricultural Development
IFOAM	International Federation of Organic Agriculture Movements
ILO	International Labour Organization
INRA	French National institute for Agricultural Research
JAA	Jer-Ana Astana rural community NGO (Kazakhstan)
LABO ESS	Laboratory on Social and Solidarity Economy [*Le Labo de l'économie sociale et solidaire*]
MEM	Maputo Earth Market
NGO	Non-governmental Organization
NOA	Namibia Organic Association
PGS	Participatory Guarantee System(s)
PIE	Integrated Ethnodevelopment Project (Brazil)
UNCTAD	United Nations Conference on Trade and Development
WHO	World Health Organization

Chapter 1
Introduction

Agroecology is considered to be a science, a movement and a practice (Wezel *et al*., 2009; Méndez *et al*., 2015), but does it have a market?

The FAO International Symposium on Agroecology in 2014 highlighted the importance of agroecological practices in the development of sustainable food systems, particularly for their contributions to the sustainability of family and traditional farming systems. Specifically, one of the conclusions was that "the ecological foundation and food system focus of agroecology provides an action-oriented approach for simultaneously developing alternative food systems, while transforming the current industrial model" (FAO, 2015b, p. 11). If we are interested in pursuing this possible future model for sustainable food systems, we must be able to identify in practice what an "agroecological" food system might look like. The purpose of this report is to present the findings of an exploratory study that explored this model from the perspective of the markets that contribute to the construction of an "agroecological food system".

While the term "agroecology" is still in the process of being defined globally and is often used to cover a large range of approaches to "ecologized" agriculture (Ollivier and Bellon, 2013), agroecology has received a great deal of attention, based on the agronomic practices and the ecosystem services that this approach to farming provides. The first use of the term has been traced back to 1928 (Wezel *et al*., 2009), but it gained significant attention in the 1980s because of its scientific development by a group of natural and social scientists (Altieri, 1987; Francis *et al*., 2003; Sevilla Guzmán, 2006; Perfecto *et al*., 1996; Gliessman, Garcia and Amador, 1981; Gliessman, 2007). However, as concluded in the FAO Regional Meeting on Agroecology in Africa: "Agroecology, stressing adaptation of agriculture to natural conditions and cycles, as well as to local needs, has been carried out by African farmers and pastoralists for millennia. Thus, while often not explicitly termed "agroecology", many actors and initiatives exist within sub-Saharan Africa that build on agroecological principles" (FAO, 2016c, p. 4).

> Agroecology's holistic approach – incorporating the traditional knowledge and skills of the world's farming communities with cutting-edge ecological, agronomic, economic and sociological research – has the potential to support strong, democratically based food systems that provide health and livelihood to small-scale family farmers and rural communities, as well as environmental benefits.

Source: FAO, 2016c.

The idea of a food system calls for looking at the ways through which production practices meet consumption practices, as is highlighted in farming systems research (Dixon *et al*., 2001; Darnhofer, Gibbon and Dedieu, 2012). There are a variety of ways through which this can happen: through self-subsistence farming whereby farmers are the consumers; through in-kind, non-monetary exchanges or gifting of food; or through monetary exchanges among producers, consumers and a whole range of intermediaries who help to turn farmed produce into marketable products. It is through a combination of these types of exchanges that markets and food systems are built.

The most well-known food system for agroecologically produced crops is referred to as the one based on organic agriculture (FAO, 1999a). Organic agriculture has become a relatively stable term that is increasingly recognized around the world, with both positive and negative connotations (Freyer and Bingen, 2014). What began as a number of isolated experiments in the 1920s, is found today in 110 countries where there are active or draft organic regulations and at least 121 private organic standards (UNCTAD, FAO and IFOAM, 2012). These standards, and the certification and labelling systems that have been developed to enforce them (Fouilleux and Loconto, 2016), have contributed to the creation of national, regional and global markets for organic products. For

instance, the State of Sustainability Initiatives (SSI) estimates that there was a total production value[1] for tropical fresh fruit and vegetables of US$43.1 billion across a range of standards for sustainable commodities in agriculture, forestry and fisheries (Potts *et al*., 2014). The value of the global market[2] for certified organic products alone reached US$80 billion in 2014 (Willer and Lernoud, 2016). This latter figure captures only those products in consumer markets that are officially recognized as organic through public and private systems of standards, certifications, accreditations and labels. The difference in these two figures lies in the fact that the first only counts tropical commodities and excludes the production value of domestic fresh fruit and vegetables, eggs, cereals, meat and dairy products, which dominate in the organic sector. However, the figures also suggest the difference found in current global food systems, which are based on trade in commodities, between farmgate prices (production value) and the retail prices that consumers pay (global market value).

In addition to discrepancies in the few market numbers available, significant critiques of a dilution of agroecological principles as they have been interpreted in public organic standards and large-scale commercial organic farming (Jaffee and Howard, 2009; Gibbon, 2008; Darnhofer *et al*., 2010) demonstrate that if we are to examine markets for products that come from production following agroecological principles, we cannot limit ourselves to only those markets that trade "organic" products. Moreover, organic third-party certification is not the only way – and perhaps not the method that is most adapted to agroecological food systems that rely upon small-scale production – through which the products and services from agroecological production can be valued. The value of agroecological products can be determined from a range of activities, particularly the creation of a diversity of market channels through which produce can move from producers to consumers. Specifically, we need to look at the diversity of markets that are being built from the bottom up, in order to capture the variety of ways in which agroecology is becoming commercialized in line with, or separately from, organic and envisage how to support markets more efficiently for small-scale producers and for agroecological products.

[1] Value of voluntary sustainability standards (VSS)-compliant product that is sold as compliant at the first point of sale (i.e. total producer revenues from compliant product).

[2] Reported retail sales of certified products.

1.1 STUDY BACKGROUND

The motivation for carrying out this study came from three synergistic initiatives in FAO.

First, FAO and the French National Institute for Agricultural Research (INRA) began a study, from 2013, on "innovations in linking sustainable practices with markets in developing countries" (FAO, 2016a). In this study, 15 case studies from around the world looked at how market-driven institutions served both to incentivize the adoption of sustainable agricultural practices and how innovators changed their institutional arrangements to ensure that sustainably produced products reached consumers in developing countries. The authors call these experiences "institutional innovations" because they identified three key mechanisms through which private, public and civil society actors reorganized both their production and consumption networks and the rules that govern them so as to achieve sustainable systems: participatory guarantee systems (PGS), multi-actor innovation platforms and community supported agriculture (CSA). Through this study, the authors found a large variety of marketing channels used by the innovators in order to create stronger (longer-lasting and more trusting) linkages between producers and consumers. This provided an opportunity to valorize sustainable products that did not rely solely on the use of a third-party certification and label. This was particularly evident in those cases that used production methods informed by agroecological knowledge. However, the authors also noted that not enough systematized data were collected on some of the key components of market construction, which would enable generalizable conclusions from these experiences.

Second, on 2 and 3 February 2015, as part of activities focused around the International Year of Family Farming, a meeting between Indigenous Peoples and FAO was held to discuss Indigenous Food Systems, Agroecology and the Voluntary Guidelines on Tenure. The meeting was attended by more than 20 Indigenous Peoples from the different sociocultural regions, including political leaders, technical experts, traditional food producers and knowledge-holders; as well as members of the International Fund for Agricultural Development (IFAD), Bioversity, the Land Portal, Slow Food and FAO officers from Forestry, Fisheries, Markets, Seeds, Partnerships, Natural Resources, Emergency and Resilience, and Technical Cooperation. As a result of this meeting, the participants agreed to create a multidisciplinary team composed of indigenous experts and FAO staff, who would work on different aspects related

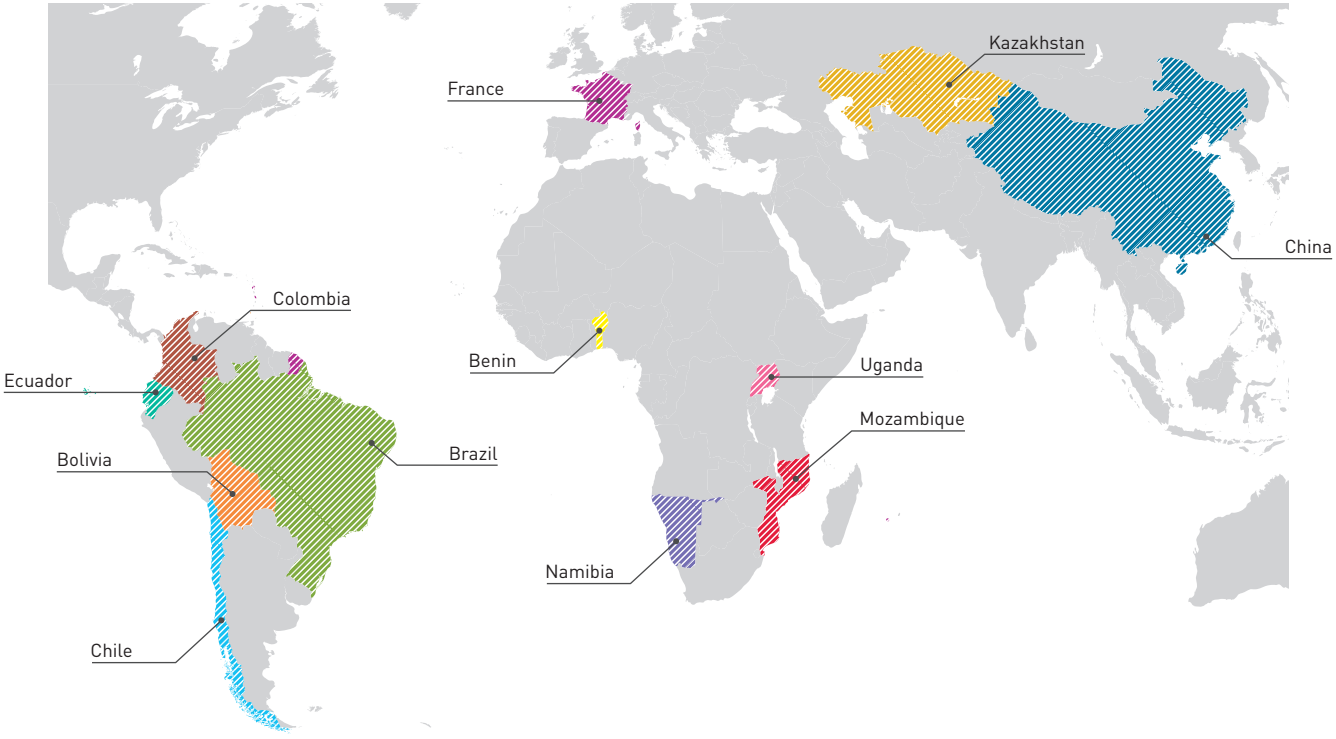
to indigenous food systems, nutrition, marketing and seeds. The FAO Nutrition and Food Systems Division (ESN) is part of this team and is developing more analysis on indigenous food systems, in particular from the point of view of food markets and exchanges. In this regard, FAO is collaborating specifically with Slow Food International, which supports the preservation and promotion of indigenous food.

Third, from 2014, FAO began a series of symposia on agroecology for food security and nutrition (Rome, 18–19 September 2014; Brasília, 24–26 June 2015; Dakar, 5–6 November 2015; Bangkok, 24–26 November 2015). The conclusions from these meetings pointed to a number of issues surrounding the role of agroecology in ensuring food security. Specifically, in Latin America it was stressed that: "Agroecological food systems stand out as being one of the main providers of high-quality nutritious and healthy food in a culturally appropriate way, promoting local food habits and traditional knowledge (…) Agroecology provides local solutions based on local needs. By establishing strong linkages between local smallholder food producers, local economies and markets, agroecology promotes integrated and resource-conserving farming systems. Furthermore, agroecology provides an opportunity to shorten the value chain and ensure reduction of food waste" (FAO, 2016b, p. 4). However, the presentations at the symposia highlighted that there is a clear gap in the literature about the markets that are being developed as part of agroecological food systems.

1.2 PURPOSE AND SCOPE OF THE STUDY

The purpose of this study is to explore how those products that come from agroecological production systems are being valued in markets and then identify how specific market channels and ways of organizing can contribute to the development of agroecological food systems. We develop a typology of market forms based on the influence of a key intermediary and examine the possibilities and constraints for changing the scale of influence of these initiatives.

Given the current gaps in the literature that examines markets for products that are recognized as agroecological, we conducted an exploratory study with the aim of collecting small samples of empirical data that can shed light on interesting topics related to how agroecology is valued in markets. This study used a case study method (Yin, 1984) in order to collect systematic evidence from multiple case studies of initiatives that have been



** The boundaries and names shown and the designations used on this map do not imply official endorsement of acceptance by the United Nations.*
Source: Department of Field Support – UN Geospatial Information Section (formerly Cartographic Section). August 2016.

commercializing their "agroecological" products (Annex 1). This approach permits a meta-analysis of the opportunities and challenges of creating or supporting agroecological food systems across a range of diverse cases. This type of data enabled the following research question to be asked: *Are there markets for "agroecological" products and what forms do they take?*

TABLE 1.1
Overview of case studies

Country	Name	Year created	Geographic reach of markets	Av. no. links in supply chain*	Challenge for market access	Main lesson for building an agroecological food system
Benin	Songhaï Centre	1985	Local, regional, national and international	1.7	Inconsistencies in production and challenges in product placement	Effective coordination along supply chain from research through consumption can create long-term markets for agroecological products
Bolivia	Tarija PGS	2005	Local and regional	1.8	Lack of information for intermediaries and consumers about agroecological products and production practices	A publicly recognized PGS provides a trustworthy mechanism for public procurement, but prices paid in public procurement scheme do not adequately value agroecological quality of products
Brazil	Sateré-Mawé native Waraná Presidium	2002	Local, regional, national and international (fair trade)	3	Unfair competition in markets based on low-priced conventional *guaraná*	Financial autonomy of families within the collective and good market information enable strategic market access
Chile	Mapuche ethical label	2010 (1999)	Local, regional and national	1.3	Lack of sufficient agroecological production to meet demand	Creating linkages between ethical consumers and agroecological producers can revitalize indigenous traditions
China	Shared Harvest Farm	2012	Local and regional	0.6	Lack of sufficient market channels in the country, consumer trust linked to fraudulent labelling in the market and lack of internal family member support for purchasing agroecological food	Building trust between producers and consumers is important for reducing food safety concerns
Colombia	*Familia de la Tierra*	2005	Local, regional and national	2.5	Lack of consumer awareness	Conscious consumption and production can be achieved through alliances among producers, consumers, restaurants and research
Ecuador	*Canasta Comunitaria Utopía*	2010	Local, regional and national	1.5	Poor transportation for producers and consumers that inhibits participation in community events	Creation of discussion spaces among producers, consumers and intermediaries enables production planning and price negotiation, even with wholesalers
France	Grabels farmers' market	2008	Local and regional	1.2	For sellers, the capacity to deal with a local, diversified and fresh supply. For consumers, to go beyond rumours about high prices and learn to consume differently	A local participatory system to ensure origin and quality of products in short chains can be more efficient than a top-down label because it favours learning and involvement by consumers, producers and intermediaries

TABLE 1.1 *(continued)*

Country	Name	Year created	Geographic reach of markets	Av. no. links in supply chain*	Challenge for market access	Main lesson for building an agroecological food system
Kazakhstan	Akmola Traditional Dairy Producers	2008	Local and regional	2.5	Lack of reliable market channels and risks to quality from lack of good logistics	Locally organized events that offer free food and product education as a way to promote environmentally friendly products and preserve traditional farming methods
Mozambique	Maputo Earth Market	2013	Local and regional	—	Scarce funding and public sector support for creating new market channels	Creation of market channels where producers and customers are in direct contact promotes local economy, and urban and peri-urban family farmers
Namibia	Namibian Organic Association	2009	Local, regional and national	1.7	Lack of adequate post-harvest infrastructure (storage facilities and an organic abattoir) for adding value to and increasing the availability of organic products	A single PGS can work effectively in both large- and small-scale operations
Uganda	Freshveggies	2009	Local, regional and national	1.6	Inconsistent supply, lack of logistics and lack of space for trade and local market channels	Collective production planning and marketing through social networks build trust in the system

* This number refers to the average across responses within each initiative regarding how many links respondents believed there were in their initiative. Perceptions differ based on where each respondent was in the value chain and based on how much information they had about the initiative in general. For this reason, we use the average to calculate the approximate length of the value chain.
Source: authors' elaboration

To answer this question, we investigated the relations between markets and agroecology by selecting six[3] case studies from the previous study of specific initiatives where producers practise agroecology and where we had found the most developed market data, and adding six[4] new case studies of "agroecological food systems" that are purposively used to expand the diversity of situations (production systems, market practices, geographic distribution). We examined these cases of collective action – what we call initiatives – that are dedicated to valuing "agroecological" products through a diversity of market channels, so as to understand better how agroecology is being valued in markets around the world by different actors and to gain insights into understanding the sustainability of these systems (based on cultural, economic, environmental and social elements).[5] Interviews with producers, consumers and intermediaries in each initiative (n=221, 78 percent completed) were conducted by the authors, or by local consultants who were familiar with the initiatives, using a structured questionnaire with closed- and open-ended responses. In eight cases, focus groups (Morgan, 1997) were used to facilitate discussions among

[3] The first six case studies are from Benin, the Plurinational State of Bolivia, Colombia, Ecuador, Uganda and Namibia (conducted by INRA and FAO in collaboration with local partners).

[4] The additional six case studies are from Brazil, Kazakhstan, Mozambique (these first three were conducted in collaboration with Slow Food International), France, China, and Chile (the latter three were conducted by INRA in collaboration with local partners).

[5] A detailed factsheet for 12 case studies can be found in Annex 2.

consumers and farmers. We used descriptive statistics to aggregate and analyse quantitative data and statistical discourse analysis to analyse the qualitative responses (visually represented by word clouds in the report). A full description of the data collection and analysis methods used for this study are found in Annex 1.

The evidence and conclusions presented in this report are based on the meta-analysis that cuts across the 12 case studies. In the Table, we present a brief overview of the cases based on the data collected during the interviews. What we have highlighted here are some general characteristics of each initiative, but also aggregations of what the core challenges for producers and consumers were in accessing markets in each initiative and the key lessons that we have learned from each of the cases about whether there are already markets for "agroecological" products and the forms that they take. The hope is that these lessons can contribute to building "agroecological food systems".

1.3 STUDY LIMITATIONS

The core limitation of this study is its exploratory nature; we have not attempted to produce statistically valid or generalizable data on the size of markets for agroecology. Instead, we have focused on qualitative descriptions of the characteristics of the markets that we have found in order to provide insights into the forms that these markets take and how they create value for agroecological food systems. Building on findings from the FAO 2016 study, we have used our qualitative data to propose some typologies that can explain how these initiatives work, based on the role of the key intermediary in each initiative, which are helpful for developing policy recommendations. We have developed qualitative perception measures to present the data on price fairness and product quality and have used lexical extraction methods to produce statistical analyses of some qualitative responses. It is important to remember that although we have 172 completed questionnaires (221 with a 78 percent completion rate) across the 12 case studies, there is only an average of 18 questionnaires completed per case, which means that the results should not be extrapolated to be representative of the entire population or other similar cases. Moreover, there is a sampling bias in this study, because we purposively sampled in order to gather information from producers (on average, seven per case), intermediaries (on average, five per case) and consumers (on average, seven per case). Moreover, 85 percent of the respondents identified themselves as members of the initiative; therefore, our results must also be read as the results of people who are committed to the missions and visions of their initiatives.

Despite these limitations, the exploratory approach taken in this study provides us with descriptive data that are useful for a better understanding of the types of markets that are created to link agroecological producers with consumers seeking their products. This information is important because it brings visibility to markets that are often not captured in official statistics. Additionally, the data reported here provide us with important insights about market construction and the significant roles that consumers and intermediaries play in supporting the development of agroecological food systems by helping to define product quality and participating in the emergence of new market forms.

1.4 TARGET AUDIENCE

The audience for this report is technical policy advisors, academics and practitioners working on developing or improving food systems. Those who are interested specifically in agroecology, organic and sustainable agriculture more broadly will find the results of interest, as will those interested in market dynamics, valuation and transitions to sustainable food systems.

1.5 KEY DEFINITIONS

Agroecology

The science of applying ecological concepts and principles to the design and management of sustainable food systems.* Agroecology focuses on the interactions among plants, animals, humans and the environment. Agroecological practices work in harmony with these interactions, applying innovative solutions that harness and conserve biodiversity. Agroecology is practised in all corners of the world, with the traditional and local knowledge of family farmers at its core. Through an integrative approach, "agroecology is a realm where science, practice and social movements converge to seek a transition to sustainable food systems, built upon the foundations of equity, participation and justice" (Gliessman, 2007 in FAO, 2015a, p. 409). "Agroecology, stressing adaptation of agriculture to natural conditions and cycles, as well as to local needs – has been carried out by African farmers and pastoralists for millennia. Thus, while often not explicitly termed 'agroecology', many actors and initiatives exist within sub-Saharan Africa that build on agroecological principles" (FAO, 2016c, p. 4).

Markets
The "collective devices that allow compromises to be reached, not only on the nature of goods to produce and distribute but also on the value to be given to them" (Callon and Muniesa, 2005). This means that markets are the rules-based exchanges of value in specific contexts where the rules can come from public regulations, private contracts, civic norms or cultural customs (FAO, 2016a). *Market channels* are the specific distribution channels (or supply chains) through which products pass from producers to consumers. *Market forms* refer to the four types of market (information-rich, interactive, diversified and sociocultural) that are developed in this report to describe the initiatives studied. This typology is based on the notion of *nested market networks* (van der Ploeg, Jingzhong and Schneider, 2012; Hebinck, Schneider and van der Ploeg, 2014), which are those markets that are formed within existing dominant markets as a response to a variety of market failures (i.e. where the market does not efficiently allocate goods and services between producers and consumers). They are the result of social struggles and mobilize the specificities of place and networks to create spaces where quality products receiving premium prices can be exchanged.

Embeddedness
This is an analytical concept used in the social sciences, originating in the work of Karl Polanyi (1957), to refer to the reality that any phenomenon (but economic activity in particular) takes place within its environment (defined in institutional, social, cognitive or cultural terms) and cannot be separated from it. We add the term ecosystem to this notion of environment. Mark Granovetter (1985) further popularized this approach by offering a way to explore how economic action is "embedded in concrete, ongoing systems of social relations" (p. 487), which focuses on exploring the actors' networks (including the flow of resources and strength of social ties) that enable and qualify market exchange.

Fair trade
Fair trade refers to the generic concept and diverse initiatives that try "to provide better market access and better trading conditions for small-scale farmers" (FAO, 2003). Fair trade refers specifically to the standard owned by Fairtrade® International (FAO, 2014b).

Family farming
This includes all family-based agricultural activities and is a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production that is managed and operated by a family and predominantly reliant on family labour, including both women and men. "The family and the farm are linked, coevolve and combine economic, environmental, social and cultural functions" (FAO, 2013b, p. 2).

Food systems
These systems "encompass the entire range of activities involved in the production, processing, marketing, consumption and disposal of goods that originate from agriculture, forestry or fisheries, including the inputs needed and the outputs generated at each of these steps. Food systems also involve the people and institutions that initiate or inhibit change in the system as well as the sociopolitical, economic and technological environment in which these activities take place" (FAO, 2013a, p. 3).

Initiative
This term is used within the report to refer to the group of activities related to product exchanges or market practices that gather people and organizations that are working together to this end. In most cases, this refers to the actor network that is the core facilitator examined in the case study (e.g. Familia de la Tierra, Freshveggies PGS, Songhaï Centre).

Institution
We follow Elinor Ostrom's definition of institutions (2009, p. 3) as "the prescriptions that humans use to organize all forms of repetitive and structured interactions including those within families, neighbourhoods, markets, firms, sports leagues, churches, private associations and governments at all scales". Institutions are both the structures that constrain action and the resources that enable actors to make changes in society (Powell and DiMaggio, 1991).

Institutional arrangements
These are the policies, systems and processes that organizations use to legislate, plan and manage their activities efficiently and to effectively coordinate with others in order to fulfil their mandates. The term "institutional arrangement" incorporates the network of actors and organizations involved in planning, supporting and/or implementing agroecological food systems and

their interactions with the rules that govern these systems. Such arrangements include the linkages between and among organizations at the local, state/provincial, national and international levels, and between governmental and non-governmental entities, including local community and business leaders.

Intermediary

A person or organization that is part of the system and is working within it to facilitate the interactions among producers, consumers and other intermediaries – with or without direct involvement in the product exchange or market transaction. This could be a producer or consumer group, a cooperative, a trader, an NGO, a university, an auditor, a consultant, a public body, etc. There is a wide variety of possible intermediaries and "organizations providing intermediation functions do not solely or even wholly restrict themselves to intermediary functions, but also cover more traditional contract research and technical services which involve no third-party type collaboration" (Howells, 2006, p. 726).

Organic agriculture

Organic agriculture is a "holistic production management system that promotes and enhances agroecosystem health, including biodiversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, where possible, agronomic, biological and mechanical methods, as opposed to using synthetic materials, to fulfil any specific function within the system. 'Organic' is a labelling term that denotes products that have been produced in accordance with organic production standards and certified by a duly constituted certification body or authority. Organic agriculture is based on minimizing the use of external inputs, avoiding the use of synthetic fertilizers and pesticides. Organic agriculture practices cannot ensure that products are completely free of residues, because of general environmental pollution. However, methods are used to minimize pollution of air, soil and water. Organic food handlers, processors and retailers adhere to standards to maintain the integrity of organic agriculture products. The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people" (FAO/WHO, 2001). The term "organic" is translated differently in different languages whereby some countries use the term "biological" or "ecological" to refer to organic.

Smallholder

"There is no unique and unambiguous definition of a smallholder. Often, scale, measured in terms of the farm size is used to classify producers. For example, households with less than a threshold land size of two hectares may be characterized as smallholders. However, across countries, the distribution of farm sizes depends on a number of agroecological and demographic conditions and economic and technological factors" (FAO, 2010, p. 1). In general, smallholders are referred to as such because of their relatively smaller resource endowments compared with other farmers in their country or region.

Sustainable food systems

These systems "ensure food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition of future generations are not compromised" (CFS, 2014).

Chapter 2
Markets for agroecology

What is a market – or rather, how do people organize themselves in exchanges – and how is value assigned to goods to turn them into tradable products?

These are the two main questions underlying the present study. Our approach to markets is sociological rather than economic (Beckert and Aspers, 2011). While economists generally focus most of their attention on the objects (goods and services) that are traded, sociologists focus on the interplay between the social structures (e.g. rules and institutions, cultural and social networks, norms and values) and the objects that are traded (Fligstein, 1996; White, 1981; Fourcade, 2011). This means that we focus on the conditions that enable exchanges to emerge and the rules that define what can be traded. Since the terms "markets" and "value" are both commonly used, we need to define our usage, in order to understand what may make markets for agroecology unique in relationship to markets for other types of products.

First, we view markets as the "collective devices that allow compromises to be reached, not only on the nature of goods to produce and distribute but also on the value to be given to them" (Callon and Muniesa, 2005). This means that markets are the rules-based exchanges of value in specific contexts where the rules can come from public regulations, private contracts, civic norms or cultural customs (FAO, 2016a). The purpose of these rules is threefold – to define who can participate in exchanges, how they can participate (through rules for competition and cooperation), and determine what value to assign to a material object, a good or a service that makes it equivalent in an exchange for a different object, good or service (Beckert and Aspers, 2011). The most common market forms are those that use money (in the form of a price) to determine the value of goods and services. In our current monetary economies, money is a standardized proxy for "utility" and fungible, which makes it fairly simple to exchange for goods and services (Fourcade, 2011). However, money is not the only form of equivalent exchange; other forms exist, based on rules that define equivalency between the products or services exchanged based on non-monetary criteria.

Key messages

Markets are the rules-based exchanges of value in specific contexts.

1. *Value* is a process of assessing and negotiating the value of a product as a combination of quality and price; and the way that the product creates value for the actors who are making, using and trading the products.
2. *Markets are created* through the interactions of producers, consumers and intermediaries who facilitate their interaction.
3. *Monetary markets* are the most common market forms, but other forms of exchanges exist, especially in regard to seeds that are exchanged based on value equivalencies.

> *In the Familia de la Tierra (FdlT) case in Colombia, we see the emergence of a market for native seeds – but this is not a monetary market. In the FdlT network, seeds are traded for other seeds, rather than for money. Farmers take the seeds that they need from the community seed bank at the beginning of the season and return a portion of their seeds back to the bank after harvest. In this way, a rule-based exchange exists where the community has established the number of seeds that are considered to be of equivalent value for a specific number of seeds of a specific quality (variety, size, shape, colour, etc.).*

Second, we see value as a process, rather than a fixed attribute of a good or service that is exchanged. Value must be negotiated and is always a compromise between quality and worth (price)

(Fourcade, 2011). Valuation processes are dynamic activities where a value is placed on a given item that turns it from an object without any declared value into a product that can be traded at an established price or other equivalent means of exchange. Valuation is actually made up of two processes that are often considered within the concept of value: "assessment of value" (*évaluer)* and "production of value" (*valoriser*) (Vatin, 2013). The first concept of evaluating is a static judgement about the quality and price that are used as means to attribute an economic value to a good, while the second concept of valorizing is a dynamic activity that refers to how qualities and values may increase the value of the good for producers, traders and users. The first practice is the identification of what is considered when a product is allocated a specific value, while the second can include the organizational conditions that have enabled that value to be assigned to the product.

> *In the case of Kom Kelluhayin in Chile, the value assigned to quinoa is a monetary value that takes into account consumer preference for products that follow the traditional method of production, i.e. with no use of synthetic inputs that are toxic to humans, animals, plants and the environment; are known to contain higher levels of micronutrients than other varieties of quinoa; have a distinctly recognizable flavour; and cook quickly. In this way, the quinoa provides cultural, culinary and health value for consumers; and environmental, health and cultural value for producers. Culinary value for the restaurants that are intermediaries in this market is provided through their use of quinoa in traditional and unique gourmet dishes. Moreover, since the quinoa is traded directly among producers, consumers and restaurants, discussions take place as to what values are important and how these values should be turned into a monetary value acceptable to each party in the exchange.*

In this report, we present qualitative and descriptive evidence that illustrates how the organization of networks and the creation of value form markets for agroecology. We focused our analysis from the perspective of producers, consumers and intermediaries who are all working within specific initiatives to ensure that food from agroecological production can easily be exchanged between producers and consumers. All the evidence presented in the report comes from primary data from 221 interviews with producers, intermediaries and consumers collected and analysed by the authors.

The next sections are organized according to the themes that emerged from the empirical data. The first section explores the different forms of organization that we found; first in terms of how the initiatives are run and the forms of internal governance that are prioritized; and second in terms of the marketing channels and networks that these initiatives have set up to link producers with consumers. We next discuss the perceptions of quality and price, and identify how different actors in these networks define agroecological food and their expectations related to the nutritional qualities of these products. We then present a typology of market forms extracted from the actor maps drawn for each case and explain how different actors perceive the sustainability of their initiatives, which takes into consideration both the market forms and the market channels (see definitions). We conclude by examining the possibilities and constraints for changing the scale of influence of these initiatives.

2.1 ELEMENTS OF INSTITUTIONAL CONTEXTS

Actors in markets follow rules that guide market exchange. These rules are both internal to organizations (in terms of the business models adopted) and external in the form of national, regional and international legal and regulatory environments. These rules constitute the institutional contexts within which the initiatives operate.

While the existence of national laws or the national ratification of international conventions does not necessarily mean that these are effectively enforced in practice, national level institutional contexts are extremely important in framing how an institutional space for agroecology is being created both internally and externally in each

Key messages

National legal frameworks should provide enabling conditions.

1. *Quality control systems* are important and must be adapted to the local initiative.
2. *Partnerships among public, private and civil society* actors provide funding, training or networking opportunities for improving initiatives.

initiative. Based on the information collected through interviews, Table 2.1 summarizes a few of the instruments that are found across the cases and constitute the institutional contexts for the development of agroecology in each of the initiatives.

Given the evidence that links agroecological practices and environmental conservation on the one hand (Garbach *et al*., 2016; Altieri, 1999; Bailey and Buck, 2016; Perfecto and Vandermeer, 2010) and the strong linkages between agroecological practices and traditional or indigenous knowledge on the other (Altieri and Toledo, 2011; Berkes, Colding and Folke, 2000), we found that the initiatives included in this study had cited both environmental laws and policies for indigenous peoples as being part of an enabling environment for agroecology. For example, national environmental protection legislation is present in all case study countries, with the Plurinational State of Bolivia and Ecuador providing specific rights for the environment in their constitutions, and with Brazil, France and Namibia having designed national programmes on agroecology or rangeland management. The Latin American countries in which our cases are located, representing almost half the cases (5 out of 12), have also ratified the International Labour Organization (ILO) Convention on Indigenous and Tribal Peoples.

Given the history of organic agriculture in each of the countries with our initiatives, it is important to see to what extent these countries have created national laws and public standards for organic agriculture, since markets for agroecology in these cases typically develop within the context of a

TABLE 2.1
Institutional contexts in the 12 cases

	National environmental protection law	Indigenous and Tribal Peoples Convention, 1989 – Ratification (ILO C169)	National organic law	PGS recognized by law?	Number of PGS active in the country
Benin	Yes	No	No	No	1
Bolivia	Yes (Rights of Mother Earth)	Yes	Yes	Yes	3
Brazil	Yes (Agroecology Plan)	Yes	Yes	Yes	7
Chile	Yes	Yes	Yes	No	2
China	Yes	No	Yes	No	3
Colombia	Yes	Yes	Yes	National registry of private PGS under development	4
Ecuador	Yes (Rights of Nature in Constitution)	Yes	Yes	No	2
France	Yes (Agroecology Plan)	No	Yes (EU level private standards)	No	2
Kazakhstan	Yes	No	No	n/a	0
Mozambique	Yes	No	No	n/a	0
Namibia	Yes (Rangeland Management)	No	No	n/a	1
Uganda	Yes	No	No (Yes, in East African regional standard)	n/a (Yes, in East African regional standard)	7

Source: authors' elaboration and IFOAM, 2016.

national and/or international organic sector. We see that more than half the countries (7 out of 12) have a national organic law that can be used by agroecological producers in the country. While these laws are well developed in Latin America, there are no national organic laws in the African countries that we studied. There is, however, the East African Organic Products Standard (EAOPS) that was adopted by the East African Community in April 2007 as EAS 456:2007 and thereby became an official private voluntary standard for Burundi, Kenya, Rwanda, the United Republic of Tanzania and Uganda.

We have included information here about PGS because half the initiatives (6 out of 12) use a type of PGS to control the quality of their products (see Table 2.7). PGS are innovations in standards systems, specifically for organic agriculture, since they provide an alternative form of certification that is particularly well adapted to small-scale and family farmers engaged in agroecological production (FAO, 2016a). A PGS focuses on a democratization of knowledge whereby the oversight systems for compliance with standards are created by producers, experts and consumers who collectively ensure that the techniques are adopted (IFOAM, 2008). PGS ensure diffusion of the innovation, but are also the means through which the research and innovation processes are governed. Specifically, PGS are networks created within local communities and often consist of farmers, experts, public sector officials, food service agents and consumers. "They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange" (IFOAM, 2015). The role of this type of network is to create a local system of production and consumption whereby multiple stakeholders experiment with sustainable agriculture technologies on farms (Rosegrant *et al.*, 2014), but also collectively ensure that the techniques are adopted by setting standards and verifying their compliance (IFOAM, 2008; FAO, 2016a). PGS serve to provide a direct guarantee, through the formation of a local market, for sustainably produced food and agriculture products.

> "Participatory Guarantee Systems (PGS) are locally focused quality assurance systems. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange."

Source: IFOAM, 2007.

The International Federation of Organic Agriculture Movements (IFOAM, 2016) reports that PGS are found in 72 countries. They are well established or under development in 20 countries, in the process of developing in another 33 and just beginning in 19 more. IFOAM estimates that 109 317 producers and processors form part of PGS worldwide, of which 46 945 are certified through PGS. Thus, while PGS are growing and there are a number of PGS functioning across the countries where we have studied individual cases (32 in total), we find that only two countries have recognized PGS as a legitimate form of organic certification. The fact that this form of certification is growing, despite official organic systems recognizing it, suggests that those producers and consumers who are seeking agroecological products are finding them outside the formal institutions of organic regulations and standards. This insight is important as we try to understand how value is being created for agroecology – often outside existing regulations. In addition to the above-mentioned policy environments, all cases reported partnerships with a variety of public and private initiatives that provided funding, training or networking opportunities for improving the initiatives. These partnerships also contribute to creating an enabling environment for the construction of agroecological markets, as the inclusion of diverse actors within the initiatives themselves (particularly in PGS) have been shown to produce market exchanges because of interactions linked to the participatory verification processes (FAO, 2016a).

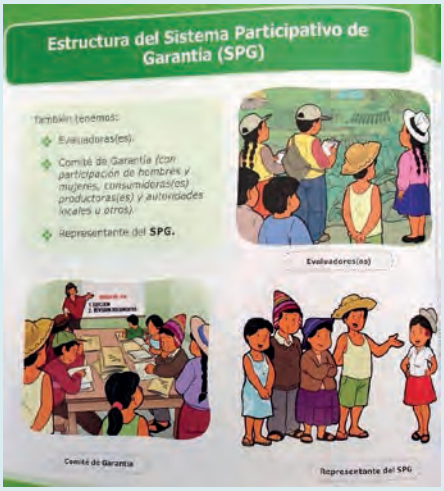
2.2 COMMON BUSINESS MODELS: COMMUNITY-FOCUSED ACTION AND PARTICIPATORY DECISION-MAKING

A business model is the way that any size and type of organization, network or initiative markets its products and sources inputs and finance (FAO, 2015c). FAO has defined an inclusive business model (IBM) as a form of internal organization of an initiative that can effectively integrate smallholders into markets – either as producers or consumers – with the underlying assumption that there are mutual benefits for both smallholders and the private sector. Past FAO documentation on IBM (2015c) found that smallholders and buyers will participate in market exchanges if they perceive that they can benefit from conducting business (i.e. "the business case"), which can exist even in unfavourable business or institutional

BOX 2.1

Participatory guarantee system as part of the institutional context – Tarija School Feeding Programme in the Plurinational State of Bolivia

Name: Tarija School Feeding Programme
Region: Tarija
Year initiative created: 2005
Producers: 51 in the Tarija ecofair
Consumers: School Feeding Programme: 1 380 (Yunchará), 114 000 (Tarija)
Different types of actors in initiative: 6 (producers, consumers, researchers, civil servants, processors, schools)
Average number of links in supply chain: 1.8
Core products: vegetables, quinoa, amaranth nougat, broad bean biscuits, milk, honey, *api*, *tojorí*, *charque* (llama meat)
Geographic market size: local
Number of market channels reported by producers in initiative: 10
Type of market system: information-rich market network



CNAPE training manual on participatory guarantee systems

The Tarija department is a national referent in the development of organic production systems and is integrated into the national system for ecological agriculture as established by Law 3525 of 2006 on the Regulation and Promotion of Agricultural Production and Non-Wood Ecological Forestry (*Ley de Regulación y Promoción de la Producción Agropecuaria y Forestal No Maderable Ecólogica*). This law is the most important in the support, promotion and diffusion of "ecological" production in the country, and is established as the Bolivian framework law for the development of ecological agriculture. The National Council for Ecological Production (CNAPE) was established to administer and promote the law together with the National Service for Agricultural Health and Food Safety (SENASAG), which was designated as the national competent authority for verification systems. The law also creates a way to integrate agroecology into its institutions by requiring municipal level governments to incorporate programmes and/or projects for training, technology diffusion, promotion, research and/or development of ecological production into their municipal development plans based on need or production potential. There is also the requirement that the Ministry of Education incorporate pertinent information about the environmental, nutritional, economic and cultural benefits of ecological production into their academic curricula. CNAPE is given the mandate to create and strengthen specialized research and technological innovation centres for ecological production and provide incentives for increasing research and innovation in this area.

There are two types of certification allowed by the law: i) ISO 65 accredited third-party certification bodies for international trade or export; and ii) alternative quality guarantee systems (i.e. PGS), evaluated and controlled by CNAPE for domestic and local trade. The process and activities for PGS certification follow the steps outlined in CNAPE's *Practical guide for the implementation of PGS* [*Guía práctica para la implementación de los sistemas participativos de garantías*]. They are detailed below.

Once the necessary information has been obtained and the community is willing to become certified, the three key groups of actors are democratically selected by the community: the evaluators, the Guarantee Committee and the PGS agent (who represents the PGS in its relationship with the state).

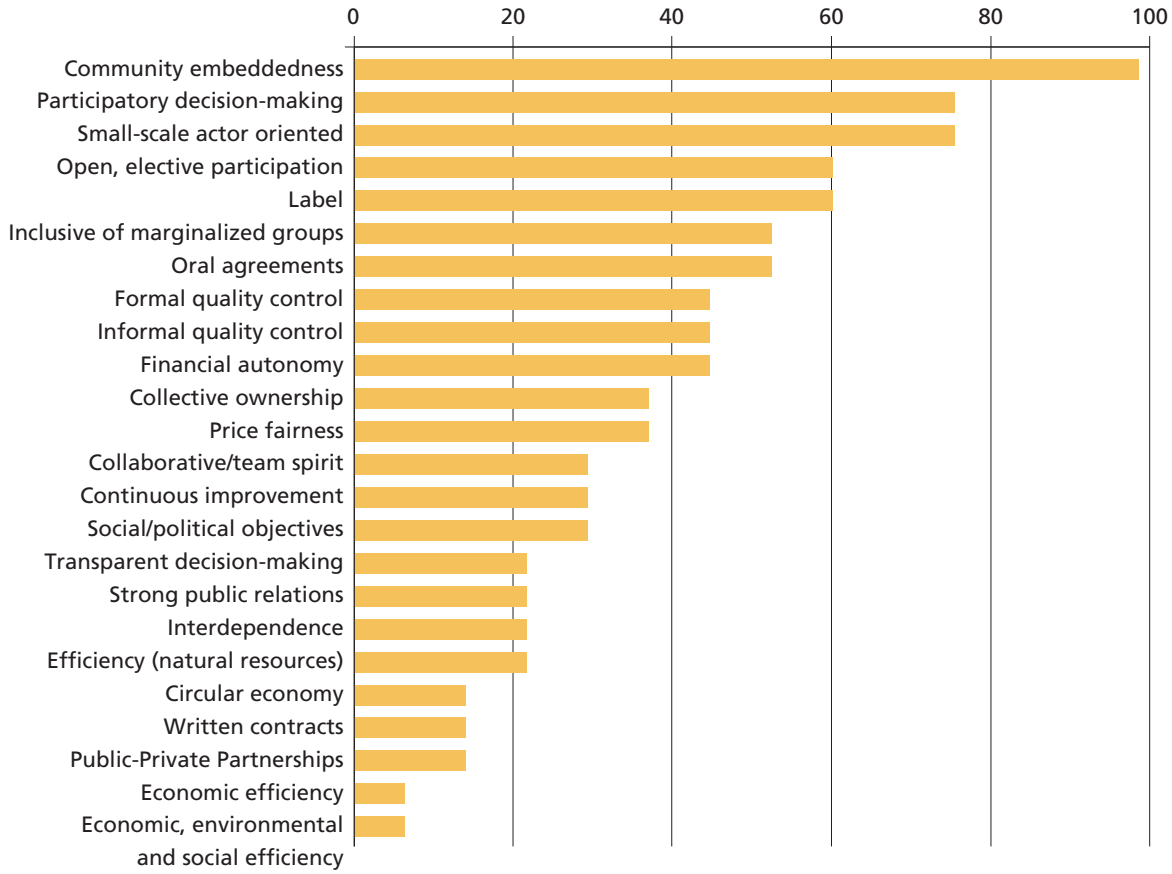
- Evaluators (usually three to ten, depending on the group) must have experience in ecological production. They have responsibility for organizing and facilitating meetings with producers and processors, drawing maps of the farm location and crop inventories, and planning production improvement. The core activity, however, is to organize and supervise evaluation and auto-evaluation processes on the farms, evaluate new producers who want to be part of the PGS and elaborate a list of general producers and processors for the group. Finally, the evaluators present all the necessary documents to the Guarantee Committee.

BOX 2.1 (*continued*)

- The Guarantee Committee is located at municipal level and is composed of local producers, consumers and a local/national institutional agent. (Evaluators cannot participate in the Guarantee Committee). The committee verifies the documents presented by the evaluators and verifies ecological production and processes on farms. In this process, the producers are qualified in phases: ecological or in transition (depending on the least advanced stage of the five dimensions: technological/productive, environmental, sociocultural, economic or political). The Guarantee Committee writes a report that includes observations and recommendations and the final list of producers and processors for the PGS. The documents from the evaluators and the Guarantee Committee are presented to the PGS agent.
- The PGS agent is democratically elected by the members of the PGS (including producers, processors, consumers, agents, etc.) and can be a public authority, a support organization, a producer, etc. (Evaluators and Guarantee Committee members cannot be a PGS agent). The agent registers the list of farmers and processors with SENASAG (which, as the national food safety authority is in charge of monitoring the PGS guarantee and controls the finished products for food safety standards). The PGS agent is the contact point between SENASAG, the Guarantee Committee, PGS members and CNAPE. With the documents the agent receives from SENASAG, authorization can be requested for use of CNAPE labels. These national public labels are authorized to be used in advertising and on the packaging of ecological products. Registration has a validity of one year.

Source: National Council for Ecological Production (CNAPE), 2013.

FIGURE 2.1
Core values of business models (percentage)



Notes: The results are aggregated by case (n=12) and based on data collected through semi-structured questionnaires (n=221). A section of the questionnaire focused on the business model; qualitative (open and axial) coding of the responses was completed to extract these values. We also used answers to closed response questions on the business model to refine these values further.
Source: authors' elaboration.

environments. The present study adds a more nuanced picture to this previous work, showing the benefits obtained in terms of the values sought by different stakeholders and the types of relationships that are most often valued in these networks.

The business models included in our study were selected to demonstrate the diversity of options, but each model is also unique to each initiative because of the contexts in which it works and the types of actors involved in the networks. In our cases, this was evident as each initiative set up their core business of producing, transforming and trading products quite differently (Annex 2). We have identified common elements that can help to differentiate the ways in which different organizational values are prioritized across the initiatives (Figure 2.1). The characteristics of community embeddedness, participatory decision-making, inclusiveness and the use of labels are explored in the sections below.

2.2.1 Community embeddedness

All the initiatives studied are, according to their members, embedded in their communities. In some cases, this was the result of an active "re-embedding" of their market exchanges into the communities where they live as part of their holistic vision of agroecology as including social, economic and community interdependencies alongside ecosystem balance. This was a key feature that functioned to ensure that benefits were being reached by producers, consumers and intermediaries alike. In the questionnaires, we included a number of different questions, that we analysed in relation to each other, which helped us to determine this component (Table 2.2).

There was a strong positioning of initiatives within local environments and a specific focus on interacting with other members of the community in order to respond to a well identified social need. Moreover, it seems that the initiatives are interacting with other communities to help them to achieve their mission within their own communities. This suggests that, rather than being defensive (Winter, 2003), they are learning through exchanges with other localized communities. The case studies reported both public-private partnerships and more classic networking relationships. For example, through the International Network for Community Supported Agriculture (URGENCI), the Shared Harvest Farm in China shares the experience of its community work with other communities around the world that are likewise building up their own community supported agriculture

TABLE 2.2
Community sustainability

Questions

For those business models that have a clearly identified social, cultural or environmental mission, how does the initiative interact in the community?

Responses	Q7.5	Q7.6	Q7.11	Q7.12	Q7.13	Q7.14	Q7.15
No	8	11	5	3	2	1	0
No, but on some issues, yes	10	12	6	11	3	2	4
In some ways	20	28	12	12	12	23	8
Yes, on specific issues	29	33	29	43	22	59	56
Yes	65	46	78	60	88	41	60
Total individual responses	**132**	**130**	**130**	**129**	**127**	**126**	**128**

Q7.5 – Is there a political and/or social vision for the initiative within which you take part? Or has this initiative, over time, given rise to a political and/or social vision?

Q7.6 – Is the inclusion and empowerment of marginalized citizens (youth, women, small producers, family farmers, indigenous people, urban poor, rural poor, disabled, etc.) a priority for the initiative within which you participate?

Q7.11 – Before the initiative was set up, did the leaders learn about the local context, so that the initiative meets social needs and fits in with the community?

Q7.12 – Is your initiative integrated into the community? Does it interact with other stakeholders in the community, particularly in support of civic initiatives?

Q7.13 – Does your initiative offer easy access (cost and availability) to well identified goods and services?

Q7.14 – Does your initiative offer easy access (cost and availability) to a diversified diet that meets your food culture or traditions?

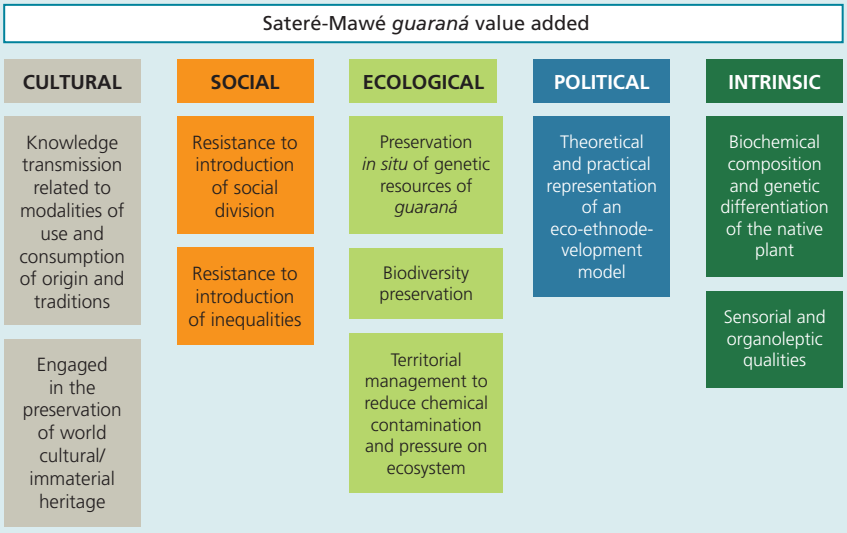
Q7.15 – How open are you towards working with other communities? Does your initiative collaborate with other communities to build mutual dependence and reciprocal benefits?

Source: authors' elaboration.

BOX 2.2

An initiative embedded in the community – the Sateré-Mawé in Brazil

Name: Sateré-Mawé Native Waraná Presidium
Region: Andirá-Marau Indigenous Land, Amazonas-Pará
Year initiative created: 2002
Producers: 100 villages
Consumers: local (100 villages) and in France and Italy
Different types of actors in initiative: 6 (producers, community elders, local and international NGOs, consumers, certifiers, boutiques)
Average number of links in supply chain: 3
Core products: guaraná, honey, cassava, oranges, bananas, flour, cashew nuts and some native herbs from the forest
Geographic market size: local, regional, national and international (fair trade)
Number of market channels reported by producers in initiative: 8
Type of market system: diversified market network



The Sateré-Mawé, an indigenous people located in the Brazilian Amazon, are known to have created and preserved *guaraná* culture, considering themselves "*guaraná* children". They were the first to domesticate and cultivate the plant, and create the *guaraná* extraction process. The native *guaraná* (*Paullinia cupana* var. *sorbilis*) is the quintessential traditional and spiritual food of the Sateré-Mawé people. Native *guaraná* is important because it is at the base of the Sateré-Mawé tribe's economy. It is not only the most valuable product they sell in markets but also has a generational importance for the social, economic and cultural/religious development of its population.

In 2002, the Slow Food Foundation for Biodiversity, with support from the Brazilian Ministry of Agricultural Development, recognized the Sateré-Mawé Waraná Presidium, which was the result of the work done within the community since 1995 as part of the community's Integrated Ethnodevelopment Project (PIE). The Waraná Presidium's purpose is to save native guaraná by reducing its risk of extinction; protecting the unique regions and ecosystems where *guaraná* is produced; and reducing access to seeds by the large companies wanting to obtain control over the Presidium and over the market. The Presidium supports native *guaraná* production through sustainable practices; promotes and protects local and traditional production practices; works for the production and conservation of native and indigenous seeds; and promotes the ethnodevelopment and local and social context of the Sateré-Mawé tribe. The Presidium uses the income generated through organic and fair trade certified exports to invest in the community.

Source: Fraboni, 2015.

(CSA) initiatives. In general, the social missions of these initiatives can be described as contributing to the empowerment of small-scale actors (producers, consumers and intermediaries) in local food systems (9 out of 12 cases reported in Figure 2.1).

We found that all the initiatives have specific social missions: supporting youth entrepreneurship through training and networking; supporting indigenous communities or traditional farming practices through restoring and revitalizing traditional knowledge or linking poor producers with middle-class consumers, thus increasing access to agroecological and healthy food as well as improving rural livelihoods. Therefore, while all the initiatives are first market-oriented, they are all seeking to achieve social goals with their economic activities. In turn, these social missions reinforce the economic projects of these initiatives since the actors are not involved in charity work.

> *At the Songhaï Centre in Benin, the social mission is to train young agro-entrepreneurs who can invest in the revitalization of rural areas. This is similar to the mission of the Shared Harvest Farm in China. Another group of initiatives has the mission of supporting indigenous communities or traditional farming practices. These are the Familia de la Tierra network in Colombia, Kom Kelluhayin initiative in Chile, Sateré-Mawé in Brazil, Earth Market in Mozambique and Akmola Traditional Dairy Producers in Kazakhstan. There is also a group of initiatives with the specific mission of linking poor or vulnerable producers with middle-class consumers. These are the Tarija PGS in the Plurinational State of Bolivia, the Grabels market in France, the Namibian Organic Association (NOA) in Namibia and the Freshveggies initiative in Uganda.*

There is also a significant correlation (p=<0.005) between the political mission and an environmental mission across all these initiatives, where 84 percent of respondents claimed that concern for the environment was important to the mission of their initiative and 52.5 percent declared that there was both an environmental and a political mission in their work.

In other words, it was found that that all the initiatives had created hybrid missions that touch upon achieving social, environmental, cultural and economic objectives. This finding is in line with the holistic vision of agroecology that focuses on interactions between ecological components and suggests that these initiatives are developing the markets within their agroecological systems as transversal approaches to development that can increase social, economic and cultural interactions with the environment.

2.2.2 Participatory decision-making

The use of participatory decision-making was found in the majority of the initiatives (9 out of 12). In these cases, participatory decision-making refers to the internal governance of the initiative and means that producers, consumers and intermediaries are all participating in governance of their initiatives. This aspect is important because less than 40 percent (5 out of 12) of the initiatives have cooperative ownership. In other words, even though stakeholders are not legally responsible for the governance of the initiative, they are still

TABLE 2.3
Participation in the initiative

Responses	Q7.1	Q7.2	Q7.8
No, I am not well informed	3	2	3
No, it is a goal, but it doesn't happen in reality	4	7	10
Yes, sometimes	8	15	20
Yes, most of the time	40	27	39
Yes, always	82	82	49
Total	**137**	**133**	**121**

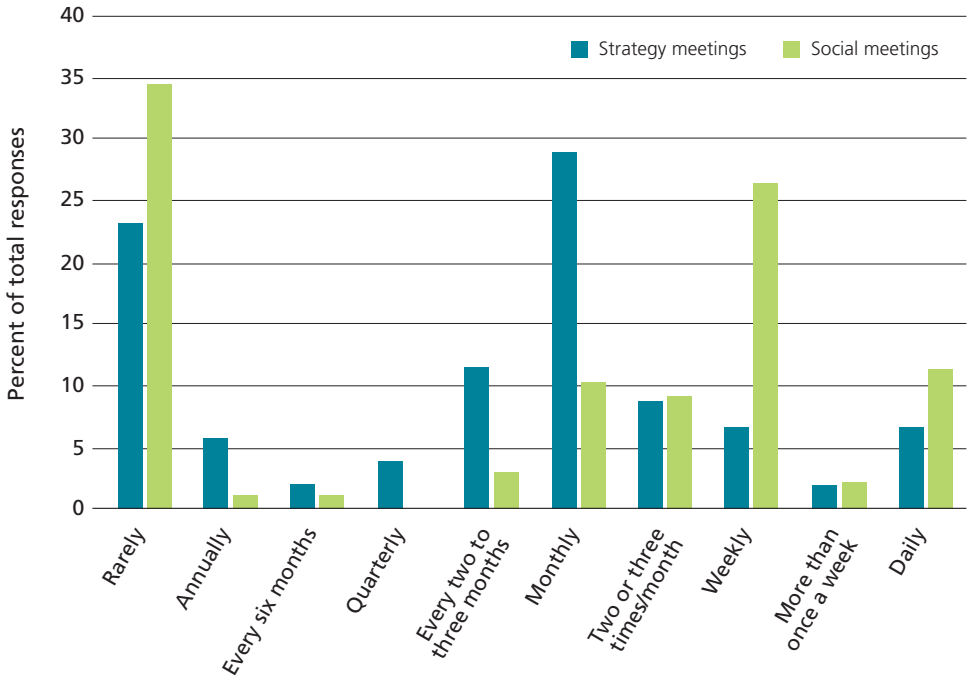
Q7.1 – Are all stakeholders (producers, processors, distributors, intermediaries, consumers) involved in the governance and decision-making of the initiative?

Q7.2 – Does this form of exchange encourage comradeship, solidarity, creativity or other means of strengthening social ties?

Q7.8 – Do you know how finances are divided between the funding of the initiative's activities and the allocation of profits?

Source: authors' elaboration.

FIGURE 2.2
Frequency of participation



Q5.16 – How often do you meet with others in the initiative to work on improving the initiative? (n=103, 47 percent response rate)
Q5.17 – How often do you meet with others in the initiative to discuss issues that are not related to the initiative? (n=71, 32 percent response rate).
Source: authors' elaboration.

highly involved in decision-making. However, there is a caveat; fewer respondents were well informed about the financial aspects of the initiative, including price setting (Table 2.3), which suggests that although activities and strategies are openly discussed, the financial management of these initiatives is not always a participatory process.

Because these initiatives are embedded in their local communities, we also wanted to understand to what extent the social ties of the community were important in determining the levels of participation in the decision-making processes. In Figure 2.2, we see that the largest single number of responses for participation in strategy meetings across all the cases is monthly, but the majority of the responses refer to participation more than once a year in strategic meetings to discuss the future of the initiative. This emphasizes the importance of participatory decision-making within these initiatives and supports the data above regarding members' perception of their level of participation. Although nearly 25 percent of responses cite rare attendance at official meetings, 60 percent (42/71 respondents) cite social meetings more than once a month. This suggests that there is a fair amount of social interaction among members and supports the perception that the initiatives are building a form of exchange that encourages cordiality, solidarity, creativity and other ways to strengthen social ties. It also illustrates that the initiatives are building upon existing social ties in their communities.

2.2.3 Inclusive initiatives

The FAO (2015c) IBM model discusses inclusiveness in terms of providing employment opportunities to vulnerable groups, such as small farmers, women and young people; using flexible trading arrangements that facilitate small-scale actors' participation in trading relationships (such as paying cash on delivery, accepting small consignments and providing reliable and regular orders), building on existing skills and expertise; and promoting collaboration, transparent pricing mechanisms and risk sharing among actors. In our study, we found elements of this form of inclusiveness in the data, but this was not the sole vision of inclusiveness

BOX 2.3
Participatory decision-making – Freshveggies PGS in Uganda

Name: Freshveggies
Region: Wakiso district, Kampala
Year initiative created: 2009
Producers: 88 producer members
Consumers: 88 households, 10 box scheme members, supermarket clients
Different types of actors in initiative: 4 (producers, consumers, retailers, National Organic Agricultural Movement of Uganda [NOGAMU])
Average number of links in supply chain: 1.6
Core products: fruit, exotic vegetables, local medicinal herbs, local hen eggs
Geographic market size: local (peri-urban) and regional sourcing
Number of market channels reported by producers in initiative: 11
Type of market system: diversified market network


Preparing for deliveries

Officially founded in 2009, Freshveggies Participatory Guarantee System (FV-PGS) is a private initiative of agroecological production and marketing operating within the rural areas outside Kampala in Uganda. This initiative is a community network of smallholder farmers composed of three autonomous farmer groups who collectively plan their production (to stagger harvest timing and crop variety) and collectively market organic fruit and vegetables. The initiative built on an existing women's savings and credit cooperative and was started as a response to promote healthy feeding and sustainable farming practices among its members and to earn sustainable household incomes from sales and delivery of fresh organic foodstuffs to consumers in Kampala's business district and to those in the areas where member farmers are located. Members' vision is to have economically empowered, motivated and healthy farming communities that are able to produce and supply organic food in order to sustain a happy and healthy clientele in Uganda. They intend to engage smallholder farmers actively in organic agricultural production and respond to the growing demand for organic foods encouraging healthy living and economic growth. In addition to "in-house training and collective sales", FV-PGS offers information on the nutritional values of different products and sometimes gives out recipes to clients.

One of the important features of FV-PGS is its participatory decision-making process. It has a Board of Directors, made up of an Executive Director, Treasurer, Secretary and a representative from each farmer group. These responsibilities rotate annually and election is carried out during the general assembly. This leadership makes all decisions related to the strategic planning and organizational aspects of PGS (such as membership requirements, standards, farm plans and reporting, networking and strategic alliances). Any official motions are voted on in the general assembly.

Members carry their fresh food crops, fruit and vegetables from their fields to the office/collection point on a weekly basis, thus providing an opportunity for members to meet and discuss their work. Weekly meetings of the savings and credit cooperative also provide a space for formal and informal exchanges. Those with bulky supplies can be helped by the provisional supply vehicle. From other locations (Bushenyi, Kayunga, etc.), produce is ordered directly from participating farmers, who send their products via trusted transporters (using public means). These transporters deliver to other collection centres where products are packed/redistributed according to the orders placed and delivered. At each cluster level, there is a marketing team of three people in charge of sales, rejects and payment records of individual members. The delivery team makes office and home deliveries, invoices sales and/or receives cash payments or sometimes even mobile money via the available cell phone networks.

Source: Matovu, 2015.

in these initiatives. Fifty percent of the initiatives (6 out of 12) have a specific mission to include marginalized groups in the community (see Figure 2.1, Table 2.2 and Box 2.1). However, when asked directly about how inclusive the initiative was, the general tendency across the cases was to respond that their initiatives are either inclusive or "neither inclusive nor exclusive" (Figure 2.2). We can explain this with respect to the characteristics illustrated in Figure 2.1. It can be seen that 60 percent of the initiatives (7 out of 12) have an open-door policy – those people who want to join can easily do so since there are no systematic restrictions on membership.

Consequently, although general receptiveness is common to all the initiatives, this does not mean that these networks actively try to include marginalized people. In fact, this was a frustration expressed by three members of NOA.

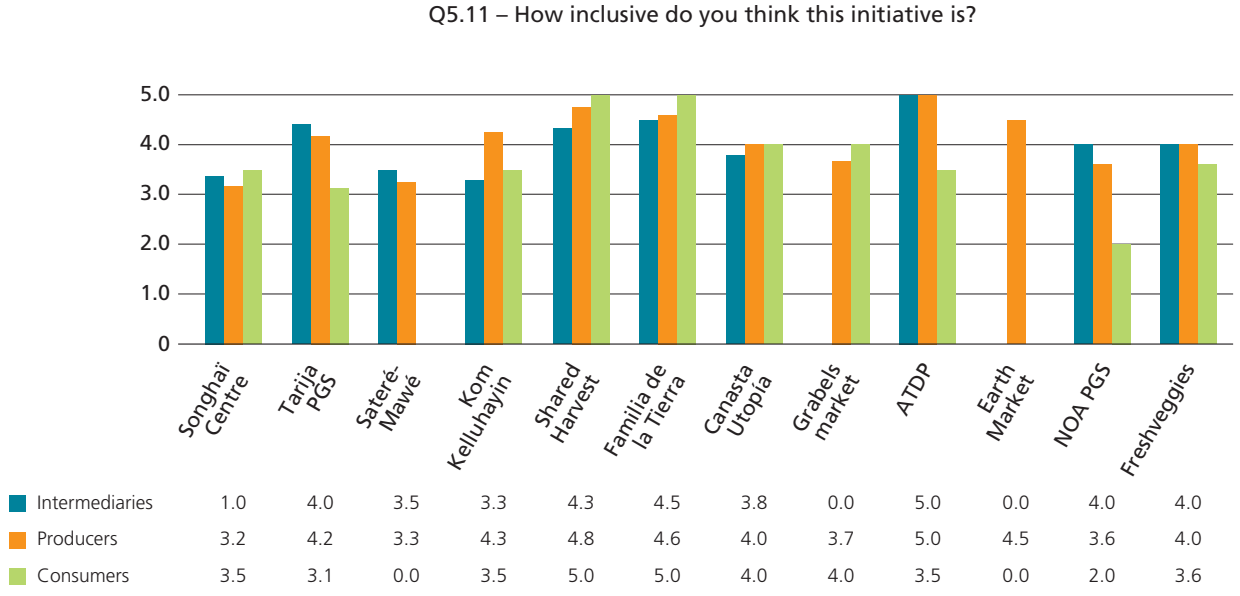
> *"I don't see NOA interact with the lower income group."*
> *"Yes, it includes all interested farmers; however, because of lack of human and financial capacities, formerly disadvantaged groups in Namibia, for example, cannot be addressed and supported individually."*
>
> *"NOA favours the wealthier/educated population that has access to the Internet. If you look at how NOA markets itself, it is addressing the wealthier and electronically connected community."*

A producer from the Songhaï Centre in Benin explained why the initiative was reported as being neither inclusive nor exclusive.

> *"[laugh] first of all, when we speak of the Songhaï system, it is the practice, it is an integrated system. You have to go to bat, you need to implement all that you know how to do – we have to move towards action in order to do things – we must do in order to know (90 percent practice, 10 percent theory); nothing is easy, you must buy into the Songhaï vision in order to join, and you must work and produce results."*

In short, the vision of being inclusive among those who shared the same vision was common across the cases. However, as the quotes above show, the approaches used do not always favour broad inclusivity and instead may give the impression that an initiative is somewhat exclusive.

FIGURE 2.3
Inclusive initiatives



	Songhaï Centre	Tarija PGS	Saterè-Mawé	Kom Kelluhayin	Shared Harvest	Familia de la Tierra	Canasta Utopia	Grabels market	ATDP	Earth Market	NOA PGS	Freshveggies
Intermediaries	1.0	4.0	3.5	3.3	4.3	4.5	3.8	0.0	5.0	0.0	4.0	4.0
Producers	3.2	4.2	3.3	4.3	4.8	4.6	4.0	3.7	5.0	4.5	3.6	4.0
Consumers	3.5	3.1	0.0	3.5	5.0	5.0	4.0	4.0	3.5	0.0	2.0	3.6

Note: 0 = not at all inclusive; 5.0 = very inclusive.
Source: authors' elaboration.

2.2.4 Efficient initiatives

The data collected on efficiency are extremely limited and it is not therefore possible to draw conclusions about how efficient these initiatives are, particularly in terms of economic efficiency. We specifically asked respondents about the efficiency of their organizations with regard to economic and financial dimensions, but we also asked them to explain what they meant by efficiency, which provides some interesting insights into how these initiatives are conceptualizing the notion of efficiency.

The first point is related to the economic model of the initiative and its promotion of financial independence. Seventy-seven percent of respondents (98 out of 128) claimed that their initiative promoted financial independence, specifically financial independence for the producers individually and collectively as members of the initiative. Second, in terms of efficiency, Figure 2.1 shows that a number of different types of efficiency were promoted in the cases. Table 2.4 gives some examples of what is meant by efficiency in these case studies.

As illustrated in Table 2.4, maintaining sales is of course the basis of efficiency. However, the respondents explained that the balance that needs to be found is not in terms of a cost/productivity function, but rather in terms of a function of economic gains balanced by social and envi-

BOX 2.4

An initiative with a mission of inclusion – Shared Harvest Farm in China

Name: Shared Harvest Farm
Region: Mufang village, eastern Beijing
Year initiative created: 2012
Producers: 5 farms (17 employees)
Consumers: 500 CSA members
Different types of actors in initiative: 4 (producers, consumers, researchers, restaurants)
Average number of links in supply chain: 0.6
Core products: fruit (peaches) and vegetables (mushrooms), rice
Geographic market size: local and regional
Number of market channels reported by producers in initiative: 8
Type of market system: sociocultural market network

©Shared Harvest, 2015

Participating in rice cultivation

Rapid urbanization in China has created a large imbalance in the rural-urban distribution of the population. Many have migrated from villages and agricultural lands because of the relatively risky and difficult nature of farm work in comparison with the stable salaries in urban factories. In recent years, farming has been further negatively affected by inclement weather, unpredictable harvests and natural disasters. This agricultural crisis means that young people are not remaining in rural areas, which is contributing to increasing social problems and a decline in the development of rural areas in China. Moreover, there has been an intensification of agriculture where the farmers who do work the land overuse fertilizers and pesticides in an attempt to increase efficiency and agriculture yields, which contributes to environmental damage and a crisis in consumer food safety.

In 2012, aware of these challenges, a group of young people in Mufang village, eastern Beijing, created a Chinese social enterprise called Shared Harvest Farm. On an area of 5 ha, Shared Harvest Farm began to solve the social need of urban consumers for safe food, and contribute to the reconstruction of rural China through the reconnection of young people with sustainable agriculture. The CSA business model used by Shared Harvest Farm includes a wide range of young people who are passionate about sustainable agriculture and work hard to generate local employment opportunities. CSA includes small and local farmers as business partners, families and disadvantaged groups such as people from ethnic groups and women with young babies.

Source: authors' elaboration.

ronmental gains. Therefore, efficient business models for agroecology are those that are able to balance the use of economic resources against social and environmental resources. The question of regulated growth, at a social pace that is in line with natural cycles, is a theme that is picked up again in the questions of how to scale up these initiatives.

2.3 DIVERSIFYING MARKETS AS A KEY STRATEGY

Diversity was a strong theme in the results on the market channels used by the initiatives. Since agroecological production systems generally do not encourage the use of synthetic inputs, ways to create markets for agroecology are to establish (i) markets for inputs to be used in agroecology,

BOX 2.5

An efficient initiative – *Familia de la Tierra* in Colombia

Name: Familia de la Tierra
Region: Bogotá
Year initiative created: 2004
Producers: 20 organizations and 100 peasant and indigenous families
Consumers: 100 families, 18 restaurants, 7 organic shops plus consumers
Different types of actors in initiative: 4 (producers, consumers, researchers, restaurants)
Average number of links in supply chain: 2.67
Core products: native varieties of beans, potatoes and tubers, fruit, vegetables, medicinal plants
Geographic market size: local (urban) and regional sourcing
Number of market channels reported by producers in initiative: 10
Type of market system: diversified market network

Creating social, environmental and economic efficiencies

With more than ten years of experience, the Familia de la Tierra (FdlT) network is a private Colombian initiative of agroecological production and processing that takes a holistic approach to strengthening agroecological production systems through marketing management and promoting local and ecological products such as tomatoes, maize, beans, pumpkins and potatoes. The network integrates 20 social organizations of agroecological producers from across Colombia and includes about 100 peasant and indigenous families in different regions and territories. The initiative began with the idea of taking on and confronting the political, socio-economic and environmental challenge that producers face in the transition from conventional agriculture practices to ecological ones.

The FdlT model places importance on the value of work in the production and conservation of native seeds; the production of organic fertilizers (research and testing of new organic inputs); agroecological food production; processing into speciality products; marketing; and, more recently, research projects (participation in projects with universities and national and international institutions). The business philosophy focuses on making the work of family farming visible and generating awareness in producers, consumers and other intermediaries about agroecological practices. FdlT promotes the idea that integrating agroecological products into daily marketing and consumption practices will not only generate good health but will also encourage alternative consumption practices that are more aware of the environmental and social dimensions of the food system (coherence between what consumers want and what they do, solidarity with small farmers, etc.). The decentralized organization of the FdlT network redefines the concept of a food chain formed by separate links where traders gain the greatest margins. Instead, the economic system must be reorganized into a cyclic and integrative system whereby all actors benefit from exchanges with others and where farmers can be engaged in a range of activities in the food system.

Source: Familia de la Tierra, 2016.

and (ii) markets to sell the cultivated produce. In the following sections, we describe the data collected on both input markets and product markets for agroecology.

2.3.1 Emerging markets for inputs

There were primarily three channels for procuring inputs across the range of cases. These sources for inputs come from the farmers' own production, local farmers' exchange systems (both through direct purchase and via a non-monetary exchange system) and local supplier shops.

> *In Chile and Colombia, seed custodians (custodias de semillas) are individual farmers who save a significant portion of their seed each season to be distributed to members of their community in exchange for a portion of their neighbours' seeds (in Chile, native chicks or eggs are also exchanged).*

Dominance in procuring inputs locally was justified by the cost reductions in the production process and the reliability of purchasing from trusted local actors. Some respondents explained that relying upon one's own seeds or those from the local network meant certainty about the organic quality of the seed and multiple benefits at the same time. Specifically, using one's own seeds enables a "reduction of production costs, efficiency and better adaptability. The production cycle is short and seeds from [my] own production have fewer diseases than when we buy the plants" (producer from Colombia).

Key messages

1. *Agroecological inputs* are mostly produced on farm or procured locally.
2. *Agroecological market channels* account for about 45 percent of the exchanges of food produced by farmers engaged in the initiative.
3. There are *22 different market channels* for agroecological products, with self-provisioning remaining important, which illustrates that producers are following a market diversification strategy.
4. The *greatest challenges* for market access (both input and product) are related to transport issues (logistics) and lack of consumer awareness.

As illustrated in Table 2.5, community and farmer networks are found to be more dominant in the procurement of fertilizers and feed, while seeds are still being purchased from local agrodealers. One of the reasons for this was explained in discussions of the challenges for gaining access to inputs.

Although not a consistent complaint from all producers, 10 of the 12 cases (excluding Brazil and Kazakhstan) reported difficulties in accessing

TABLE 2.4
What does efficiency mean for the initiatives? Insights from intermediaries

Brazil	Efficiency comes from the multivalent actions internalized in the project.
Chile	Efficiency means doing something well that benefits all important aspects of life. Efficiency is balanced; it is important to increase sales, of course, but this must be done at the same pace as agroecology production practices.
China	Efficiency means overall efficiency: we have stable market channels and enough cash flow. It also means meeting the goals of our organization.
Colombia	Efficiency means producing at the same rhythm as the natural cycles; using resources in a way that does not put future production at risk.
France	Efficiency means that low- to middle-class consumers can easily access a good quality/price ratio for food. Both small farmers and retailers/artisans procuring directly are supported; transition of "ordinary" producers and consumers to more sustainable production and food; social cohesion, both locally and between urban-rural communities.
Kazakhstan	Efficiency means education.
Namibia	Efficiency means achieving the objectives of the NOA strategy with available resources (human, financial).
Uganda	To date, Freshveggies is quite efficient in terms of meeting social and economic goals. Members are able to sell their produce to fairer markets and at better prices, but the initiative needs to scale up in terms of producer numbers to tap into the growing niche market to make more business sense.

Note: We do not have this information for all the initiatives.
Source: authors' elaboration.

TABLE 2.5
Input markets: market channels and benefits (in order of importance)

Inputs	Procurement channel	Benefits
Seeds	Agrodealer	High seed quality (germination)
	Own production	Reduction in production costs
	Farmer exchange	Availability
Fertilizer (compost, manure, effective microorganisms)	Own production	Closed production cycles
	Farmer exchange	"High quality, low price, within short distance"
	Community network	Trust in product quality
Animal feed/fodder	Own production	Less costly and accessible
	Local farmer	Availability
	Community network	Know it is organic
Post-harvest materials	Agrodealer	Good transport
	Local farmer/supplier	Availability
	Importer	Availability and better price

Source: authors' elaboration, based on the analysis.

inputs for use in agroecological production. The main challenge was gaining access to good-quality seed that was not genetically modified and that would germinate properly (Figure 2.4). This challenge related specifically to the varieties available on the market and those varieties preferred by agroecological producers and consumers. In agroecological food systems, it seems that producers prefer to produce a wide diversity of varieties, but in small quantities. Consumers prefer this varietal diversity, but sometimes there is just not enough variety available on the market.

> *In Ecuador, the price of inputs and time/price of transport were a challenge, while in other countries (China, Namibia and Uganda in particular), the challenges were more related to being able to trust the quality of inputs (in particular, labour in Namibia). Most of the farmers produced their own compost, but this was affected by weather and natural resource availability (particularly in Chile).*

2.3.2 Strategic markets for agroecological products

Market channels refer to the specific points of sale or first exchanges in a value chain, starting from the farmgate. As regards products, we found an amazing amount of diversity in the channels through which agroecological products were exchanged.

First, we were able to identify that on average about 45 percent of the produce farmed agroecologically is being exchanged through market channels that could be called agroecological (Figure 2.5). We use this term because respondents reported that the produce that passes through these market channels was either labelled or described as having "agroecological" qualities (we explore this point more in the next section). In line with our conceptual framework, we argue that

FIGURE 2.4
Challenges in accessing inputs

Note: Lexical analysis from open-ended questions produced this ranking, based on individual responses (n=46).
Source: authors' elaboration.

market channels become agroecological through the specific rules and networks (including material objects such as physical markets, labels, posters) that the initiative has built to ensure the transmission of knowledge that the products are indeed agroecological. Therefore, in our analysis, we distinguish between channels where actors recognize the products as being agroecological and those channels where they do not (otherwise referred to as conventional).

BOX 2.6

A well-developed input supply market – Songhaï Centre, Benin

Name: Songhaï Centre
Region: Porto-Novo, Savalou, Parakou, Kinwédji, Kétou, Zagnanado
Year initiative created: 1985
Producers: 7 satellite farms (about 100 employees), 1 700 active student farmers (of 230 model farms)
Consumers: US$6.7 million in sales in 2014, 6 398 students trained since 1985
Different types of actors in initiative: 6 (producers, consumers, processors, retailers, hotels/restaurants, input suppliers)
Average number of links in supply chain: 1.7
Core products: seeds, fruit and vegetables, meat (poultry, rabbits, pigs, cows), processing products (syrups, dairy products, palm oil, soap, juices and fruit concentrates), recycled plastic bottles, and others
Geographic market size: local, regional, national (Cotonou, Porto-Novo, Savalou, Parakou, Kinwédji, Kétou, Zagnanado, Lokossa) and international (Nigeria, Togo, Ghana, Côte d'Ivoire, Liberia, Sierra Leone, the Congo and the United Republic of Tanzania)
Number of market channels reported by producers in initiative: 9
Type of market system: sociocultural market network

Songhaï circular economy

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With more than 30 years of experience, the Songhaï Centre is a well-established regional training, production, processing, research and development centre for sustainable agriculture that takes a holistic approach to linking producers and consumers in local and national level markets. The Songhaï integrated production model strengthens the sustainability of agricultural production by incorporating three key sectors of the economy into one organizational model: primary production, including crop production, livestock farming and aquaculture; secondary production involving agro-industrial processing, plastic recycling and bottle production; and tertiary production including services such as training and education, communications, marketing, hospitality and tourism. In its 30 years of operation, the Songhaï Centre has benefited about 152 000 people across Benin and has created a network of over 200 partners around the world, through which it maintains international and multidimensional relationships.

The Songhaï Centre integrates five regional centres – Kétou, Kinwédji with 30 ha, Savalou with 214 ha, Parakou with 250 ha and Zagnanado – into a close-knit network that is run from the main site located in Porto-Novo. This model is able to generate high-quality agricultural products without chemicals and additives at a low price, guaranteeing accessibility and well-being for local Beninese communities. Through the synergies promoted by its integrated model, the Songhaï Centre produces about 90 percent of the inputs necessary for production. The supply of inputs, which are free for producers, is centralized in the Porto-Novo site. Farmers have found in the Songhaï scheme an important source of inputs such as seeds, effective micro-organisms, compost, pasture, fish seed and feed. Producers also produce their own inputs, including seeds, fertilizers such as compost and manure, fodder, animal feed, water and biogas. The production system promoted by Songhaï is based on the principles of "low-input agriculture" whereby the farmers' production of inputs, which are used sparingly, reduces costs and enables farmers to sell their products at competitive prices on the market.

Source: authors' elaboration.

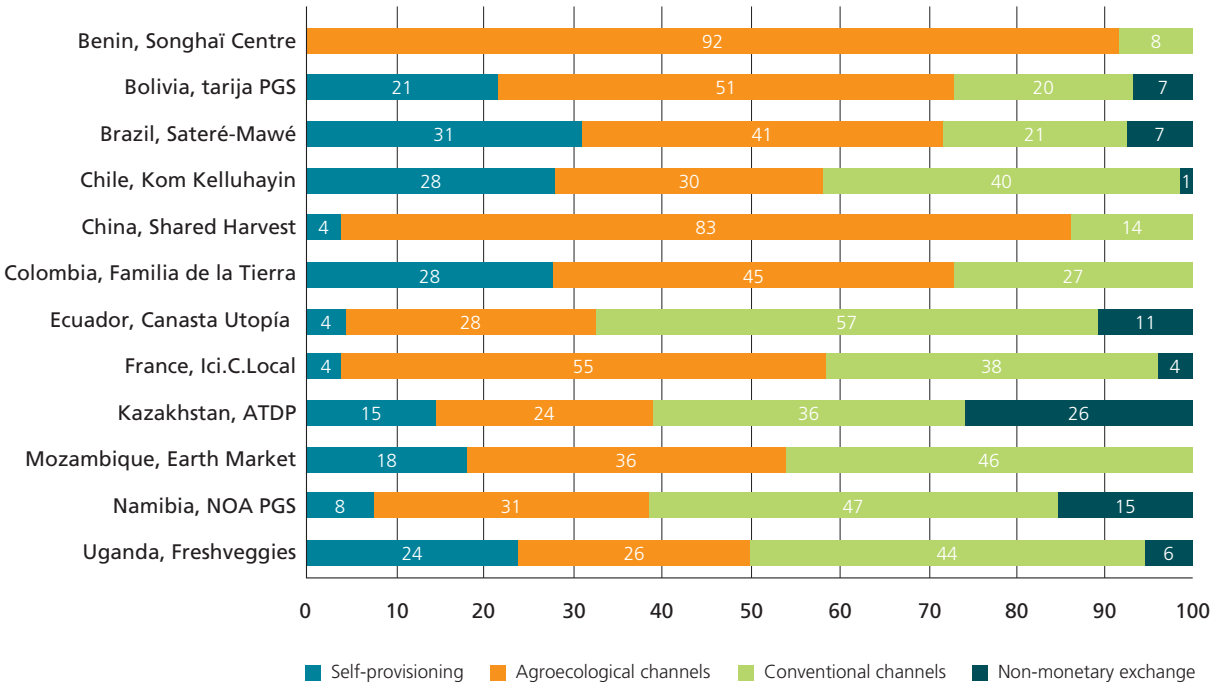
The Songhaï Centre in Benin is the most advanced, with 92 percent of its products being sold through its own agroecological channels. The Akmola Traditional Dairy Producers (ATDP) Presidium in Kazakhstan has the smallest proportion of its sales passing through agroecological channels (24 percent), but it also makes use of non-monetary exchanges and self-provisioning, which provide channels for preserving the agroecological identity of its food.

Self-provisioning remains an important component of farmers' marketing strategies, which ensures that the farmers themselves are the very first consumers of agroecological food. All the initiatives reported consuming a portion of what they grow (Figure 2.6) and we see that overall self-provisioning accounts for about 15 percent on average of farmers' exchanges. We found that across the initiatives, the value of feeding the producers first and then selling the excess produce was integrated into the missions of the initiatives.

This is particularly apparent in Chile, where producers are in transition from subsistence to semi-commercial farming. This transition was started after farmers began to practise agroecology and rediscover how this approach to agriculture was in line with traditional Mapuche knowledge. The importance for farmers to eat well, and before commercializing, is reflected in the second of the four principles of the Mapuche culinary and food tradition, which states that: Food and health are intertwined and constitute the quality of life (Küme mongen). This principle guides both cultivation and eating practices, as food is considered to be medicine for the body. Eating well is associated with production practices that promote good health, particularly in the use of diversified plants and seeds that have different flavours and serve medicinal purposes.

We also see that conventional market channels absorb about 33 percent on average of agroeco-

FIGURE 2.5
Distribution of exchanges between agroecological and other market channels (percentage)



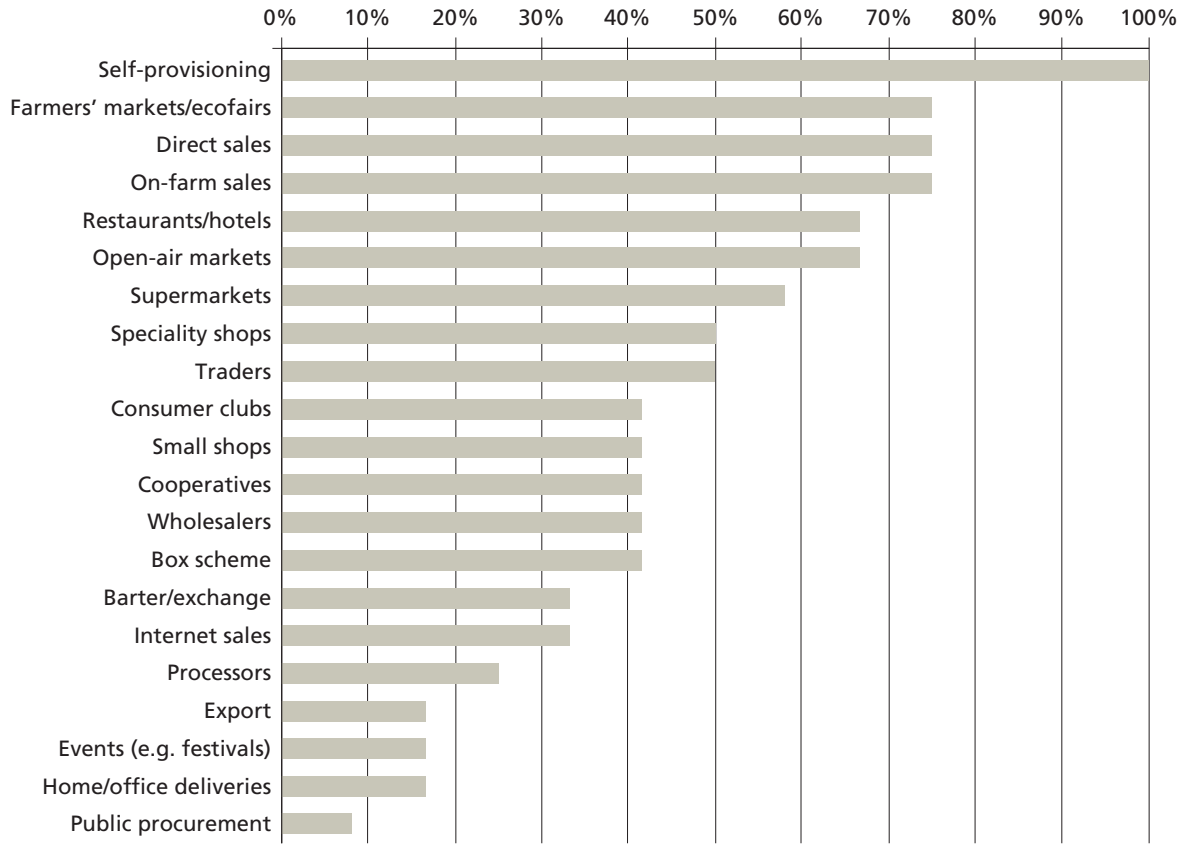
Note: Percentages reflect a weighted average from responses that reported the percentage of exchanges via each type of channel. Responses from producers, consumers and intermediaries are aggregated to arrive at an average number for each case study (n=152).
Source: authors' elaboration.

logical production, which is not insignificant. The typically economic need to sell part of producers' agroecological products through conventional channels is well documented in the literature on organic agriculture (Guthman, 2004). However, there are no reliable statistics on the portion of organic food that is being traded unlabelled in conventional channels that can put the percentage that we found into perspective. In the data collected for this study, we can clarify this number to explain that despite selling the products through conventional channels, there was evidence in all our cases that market intermediaries were usually informed about their agroecological quality.

> *For example, the initiative from Ecuador sells the largest proportion of its products through conventional channels (57 percent) because of an arrangement that was negotiated between the producer cooperative, two consumer cooperatives and the wholesale market. In this arrangement, the initiative was able to purchase and sell products for its box scheme using the wholesale market service, but at a renegotiated price that was considered fair for both producers and consumers. This negotiated price takes into consideration the higher value and costs of agroecological production, so even though the products move through conventional channels, there is some acknowledgement of the agroecological production practices used.*

For product markets, we found a high level of diversity in the channels used. We identified 20 different market channels in addition to informal barter/exchange and self-provisioning of products by the farmers across the cases (FAO, 2016d). On average, there were 8.3 channels per case and farmers in all the initiatives also consumed a portion of what they grew. The most important market channels for agroecological products were direct sales and on-farm sales; farmers' markets and ecofairs; and restaurants and hotels. The perceived

FIGURE 2.6
Where are products sold? (percentage)



Notes: Percentages refer to the number of cases that use these specific market channels, therefore n=12.
Source: authors' elaboration.

TABLE 2.6
Benefits of preferred market channels

Market channels	Main theme	Specific benefits
Direct sales and on-farm sales	Gratifying and large volumes of sales	Proximity; cordiality; trust; quality; selling their own production; contact with consumers, large volumes of sales; good relationship with consumers and colleagues
		Flexible channel for surplus products; additional customers; long-term cooperation; seasonal
Farmers' markets and ecofairs	Fresh and better price	Organic; better price; fresh
Restaurants and hotels	Easy to deliver and healthy products	Saving time; learning; healthy; social; friendships; saving time; economic; easy to deliver; saving money to support the organization; healthy products; healthier products; solidarity; fresh products; natural products; organic

Note: The larger the size of the text under Specific benefits, the more important is this value.
Source: authors' elaboration (analysis using CorTexT based on the analysis of 161 responses).

BOX 2.7
A market where more than just food is exchanged – Maputo Earth Market, Mozambique

Name: Maputo Earth Market
Region: Maputo
Year initiative created: 2013
Producers: 14
Consumers: participants in the monthly Maputo Earth Market
Different types of actors in initiative: 3 (NGOs, producers, consumers)
Average number of links in supply chain: 1
Core products: fruit and vegetables, processing products and local gastronomic products
Geographic market size: local and regional
Number of market channels reported by producers in initiative: 7
Type of market system: interactive market network

Everything is Good, Natural and Organic

The Maputo Earth Market (MEM) was the first of its kind (a Slow Food Earth Market) in Africa. It is the result of a partnership between the Italian NGO Civic Volunteer Group GVC [*Gruppo di Volontariato Civile*], Slow Food (Slow Food Muteko-Waho Convivium) and the international NGO ESSOR. The initiative has an agroecological approach to market creation and food supply based on principles and practices that promote small-scale agroecological producers and closer ties between farmers and consumers, as well as traditional consumption habits. It prioritizes short distribution channels, value added, good-quality food and the local movement of goods.

Located at the heart of the country's capital, Maputo, in the FEIMA (park market) of Parque dos Continuadores, MEM holds an exhibition and market at the end of every month, run by family agroecological producers. This type of farmers' market gives importance to the work of a group of small-scale producers who, despite their socio-economic difficulties, continue to produce local and traditional food without agrochemicals. MEM is held by 14 producers, motivated by the opportunity to promote and sell valued products collectively; make direct contact with consumers in order to explain why what they offer is different from conventional markets; acknowledge expectations and products sought; and promote more awareness of responsible production and consumption. Slow Food International has claimed that "MEM has been more than a sales outlet, it is where producers and consumers come together in a closer relationship, where links of trust are created […] in which each product bought has a shared life story". What this means is that MEM provides a space not just to purchase food, but also to exchange ideas, recipes, traditions, laughs and enjoy a common experiences in a friendly place.

Source: Maputo Earth Market, 2016.

benefits are strikingly different between the top three reported market channels (Table 2.6). It can be seen that the most important benefits from selling/buying directly through a variety of direct sales mechanisms, including on-farm stalls, are related to social relationships such as proximity, cordiality and trust. Direct contact between producers and consumers is highly valued. Although farmers' markets are also opportunities for direct contact, the main benefits of this market channel are related to price and product quality, such as freshness and official recognition of "organic" products. Restaurants and hotels had the most frequently co-occurring descriptors in terms of benefits. In this channel there is specific focus on healthy products, convenience (for all parties) and social relationships such as friendships and commitment to the initiative. The restaurants and hotels that are purchasing agroecological products in our case studies are typically either gourmet restaurants, and thus for a wealthy clientele, or they are specialized in traditional or local food and serve the middle or lower classes. There is a trend for some restaurants also to identify themselves as serving local, agroecological (organic), or vegetarian food (e.g. in Benin, China, Chile, Colombia and Namibia). These insights are reflective of the importance of multistakeholder partnerships that these initiatives foster, particularly within their local communities.

The greatest challenges to accessing markets reported by producers and intermediaries were logistics and lack of consumer awareness both about where to find agroecological products and why agroecological products should be consumed (specifically in terms of what agroecological qualities were). Logistics concerns were linked to inconsistences in production and challenges in product placing, often resulting from poor transport conditions and a lack of adequate post-harvest and processing infrastructure close to production areas. In terms of consumer awareness, most of the initiatives reported that intermediaries and consumers lacked information about agroecological products and production practices and were highly influenced by untrustworthy or incorrect information about the safety and price of agroecological products, mostly linked with labelled organic products.

These results point to the diverse strategies used by farmers to ensure that they can find markets for all their production. Typically, after farmers put aside a portion for their own consumption, they will actively funnel their products through the initiatives' market outlets first and then sell to conventional markets if prices are good or if they cannot sell through the agroecological channels. Those products exchanged through non-monetary exchanges often come from the portions put aside for household use or products that can be used as seed for the next planting season. A common element across all cases is that, despite the local context and types of markets that are available locally, domestically and internationally, producers and intermediaries engage in diversified marketing strategies. This conclusion is important because it shows that agroecological market actors have the autonomy to determine where and when to sell their products, which enables them to create greater monetary and other value for their products, as will be explored in the next section.

2.4 CREATING VALUE[1]

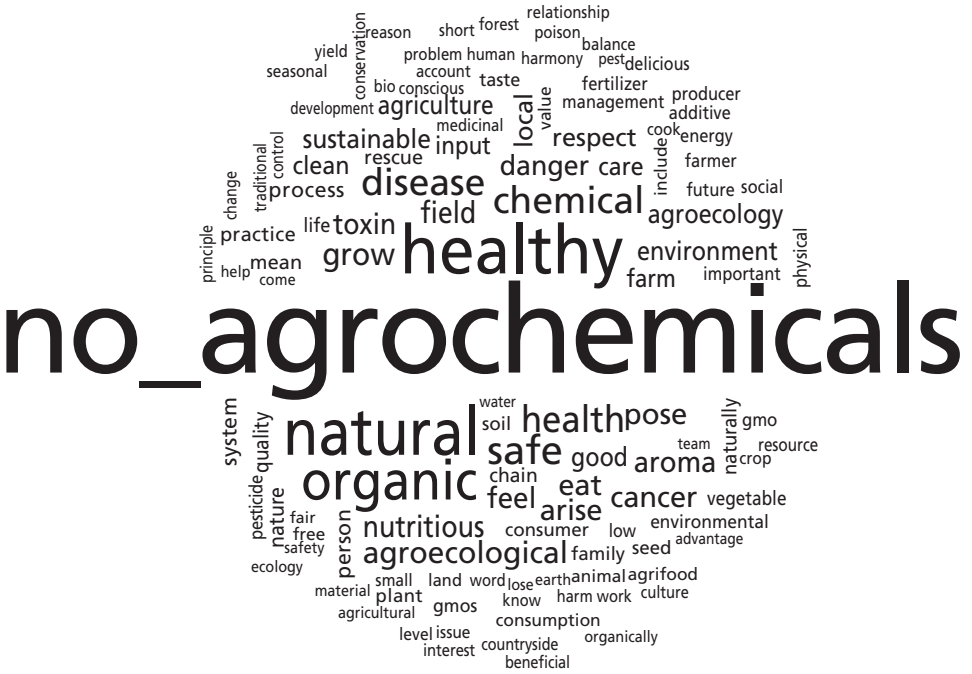
According to the economics of conventions, market exchange is only possible when there is some agreement (a "convention") about the "quality" of the products to be traded and methods that enable actors to measure that quality (Boltanski and Thévenot, 2006 [1991]). In the tradition of

Key messages

1. *The value of agroecological food* is found in its characteristics as organic, healthy, natural, safe food that is free from agrochemicals.
2. *Direct contact* between producers and consumers or via trusted intermediaries is the most common means to *communicate quality*.
3. *Labels* are important in these initiatives as a means to communicate agroecological quality.
4. The majority of the prices are seen as being *fair and are set in a fair way*.
5. The consumers in these networks are relatively *price insensitive*.

[1] Our conceptual framework for studying markets is anchored in economic sociology, specifically bridging two substreams: the embeddedness literature pioneered by Mark Granovetter and Harrison White and, more strongly, in sociotechnical arrangements first conceptualized by Michel Callon. Within recent theories of valuation that emerge from this second stream in economic sociology, we can see synergies with institutional economics through conventions theory, first proposed by Luc Boltanski and Laurent Thévenot. In this way, we can capture the relationships between actors within networks, their market-making activities and how they define the rules and allocate responsibilities among themselves and others.

FIGURE 2.7
In your own words, how would you define agroecological food?



Source: authors' elaboration, based on lexical analysis of 184 questionnaires.

institutional economics, quality has been characterized "as an institution that is shaped by society and by culture" (Allaire, 2010). Quality is a social construction that goes beyond the idea of information distribution among market participants and focuses on how this information shapes the way that actors in society make value judgements about quality and qualities of products. According to Callon, Méadel and Rabeharisoa (2002), more than a simple comparison of product characteristics, the process of defining a product is the process of defining its qualities. The concept of quality therefore is the result of a process of qualification whereby qualities are attributed to, stabilized on, objectified on and arranged for a product, and these qualities have two principal components: intrinsic and extrinsic. In our cases, actors identified the differences between intrinsic qualities (such as being agroecological or organic)[2] and extrinsic qualities.

The qualities that make products comparable (that lead to identifying products as different and similar) are constructed through interactions among members of the initiatives. To "value" products in agroecological markets in our cases is taken to mean the assignment of a fair price for a specific quality of a good. In our research, we explored the range of qualities sought by different actors and specifically the "agroecological" quality of the products. This value is assigned through an evaluation of how these products help producers, consumers and intermediaries to create other types of value by exchanging these products. Put differently, consumers, intermediaries and producers will reach an agreement on the price of 1 kg potatoes bought in a farmers' market based on the benefits received by each in exchanging the potatoes in that farmers' market. We know from the analysis of our interviewees' responses that freshness, knowledge of the product's organic nature and better prices for producers are the benefits received for this type of exchange. Therefore, multidimensional value is being created through the market exchange – the environmental and health value of organic production is being recognized; there is a monetary value in receiving a fair

[2] Intrinsic qualities are often referred to as "credence attributes" because they cannot be measured with the naked eye, but can only be ascertained by believing the information that is communicated.

price that covers the real costs of production; and there is nutritional, storage and aesthetic value in the desire for freshness. In short, it is through a combination of quality construction and price allocation that we can understand what agroecological products are worth in the different markets.

2.4.1 What is meant by agroecological food?

In order to be able to determine what qualities are considered important for agroecological food, we had first to establish a baseline of what respondents across the cases defined agroecology to be and then what they were most often eating as agroecological food.

In general, the most commonly defined aspect of agroecological food was explained as a product or a production practice that did not use agrochemicals (Figure 2.7). This illustrates an understanding of agroecology as a method of production that delivers food that can then be considered natural and healthy. We find that organic and safe were terms often used to describe agroecological food.

Within this global concept, we can identify differences between the definitions used within each country and by type of actor. By grouping qualitative responses together according to a Chi^2 measurement of consistency between the responses,[3] we see three different groupings emerge.

1. One grouping is focused clearly on consumption concerns about the healthiness of food eaten and looks for a lack of chemicals and "safe" food. This emerges clearly in the cases of Ecuador, France and the Plurinational State of Bolivia.
2. In Bolivia, Brazil, Chile and Uganda, the term "health" is used with regard to the production of food, thus referring to practices that are better for the environment, produce clean food and do not cause cancer scares for farmers.
3. In Benin, Chile, Kazakhstan and Uganda, the term "natural" is used to refer to healthy, safe and organic food. Here, natural refers to food production and processes carried out in a natural way.

Overall, these grouping are consistent among producers, consumers and intermediaries where all actors seem to be cognizant of the different meanings of agroecological food. This suggests that the concept of agroecology itself is multidimensional and is difficult to summarize in a single word.

> "To farm without the use of synthetic additions. More accurately, [organic] represents what I want to do: become more sustainable and create a food forest for my microclimate. I would prefer a more natural structure, rather than one made by humans; it needs to be agroecological. This last one goes in more with permaculture (this direction – agroecology towards permaculture – is not evoked in the text)."

Source: Female farmer in Namibia.

These responses demonstrate that there is a clear concern about safety issues (for producers, consumers and the environment) that is driving an interest in agroecological food. The responses also demonstrate the close relationship in respondents' minds – all over the world – between the concept of agroecology and that of organic. This is specifically related to the fact that, in some countries, agroecology is used interchangeably with organic. In Namibia, for example, NOA – the key intermediary – insisted on using the term organic in interviews because it had spent so many years sensitizing producers and consumers to organic agriculture and imbibing this word with its interpretation of agroecology as a set of farming practices, a way of organizing its community and as a label for marketing its products. What this result tells us is that the decision to use agroecology or organic is highly context dependent and is a political decision taken by groups in order to enable them to form alliances with other groups or to maintain a certain level of market recognition.

2.4.2 Valuing a diverse diet and increased food security

Across the 12 cases, all interviewees reported eating agroecological food. This was particularly important for producers who rely upon self-provisioning as part of a marketing strategy. We argue that this is part of a marketing strategy because the interviews revealed that the decision to keep some produce for informal exchanges or family consumption was part of a marketing strategy that prioritized different channels and timing for the sale of products. The ability to store a portion of what was produced provided additional marketing opportunities, such as selling at a later date; saving for seed to plant or barter; recycling

[3] Pearson's Chi^2 measurement of consistency is a standard statistical test that is applied to sets of categorical data and evaluates the likelihood that any observed difference arose by chance

into other types of inputs that could then be sold or exchanged; or consuming directly. These were all conscious and strategic decisions that the farmers interviewed took about where, when and to whom to sell their products. If we look at the descriptive statistics of the respondents across the 12 studies (Annex 1), we see that respondents overall eat agroecological food for about half their dietary needs (54 percent). The average age of our respondents was 46 years old; 64 percent were women; they were highly educated and of middle income. There is a general trend whereby producers are eating agroecologically for a greater proportion of their diet than consumers. The two exceptions are France and Namibia, where there is a strong focus in these initiatives on commercial sales of agroecological products and a greater specialization of the types of food items produced.

In terms of the types of food our interviewees are eating, potatoes, vegetables, maize, beans and eggs are the five most often cited types of agroecological produce (Figure 2.8). This is consistent with the types of crops and livestock that are kept by agroecological farmers who use integrated production systems; there is a great deal of crossover in our data between the food grown by producers and that consumed by local producers, intermediaries and consumers. Therefore, the ability of people to consume agroecological products is closely tied to the availability of these products in their local markets.

Evidence is beginning to emerge that suggests that organic food has different nutritional effects from conventional products (Dangour *et al.*, 2010; Średnicka-Tober *et al.*, 2016a; Średnicka-Tober *et al.*, 2016b; Sautereau and Benoit, 2016). This is reflected in our results where the majority of the interviewed producers (83 percent) and consumers (88 percent) explained that the food they consume has changed since they joined their initiatives and reported that this change has had positive effects on their diets and physical and/or mental health. There was consistency in these responses between men (81 percent) and women (86 percent), even though the women provided a greater variety of responses (i.e. more responses on the positive and negative extremes of the spectrum). Youth (under 30) and elderly (over 75) were the most positive, claiming that improvement in their physical or mental health was the main reason for joining the initiative and they clearly have seen positive changes in their health. Finally, there is no clear correlation between level of education and perceived change in health. In other words,

FIGURE 2.8
Top agroecological products

Top five consumed products

Produced by the initiatives

Native and traditional varieties

Animal products: *ayran* (salty yoghurt drink), *bajias* (fried meatballs with vegetables and bean flour), *chamussas* (fried wedges with meat or vegetable filling), eggs, *irimshik* (cottage cheese), *kaymak* (sour cream), *kospa* (curd dessert), *kymyz* (fermented horse milk), llama meat/jerky, *qurt* (dried curd milk), *shubat* (fermented camel milk), traditional poultry breeds

Fruit and nuts: *açaí*, *rosa mosqueta*, wild berries, *guaraná*, *katunkuma* (bitter berries with medicinal properties), mango varieties, papaya varieties

Herbs and spices: *achiote*, *hoodia*, medicinal leafy greens, *Sceletium tortuosum*, *selandia* (medicinal plants)

Indigenous cereals: Andean maize, amaranth, *chia*, rice, quinoa

Tubers: Andean potatoes, *arracacha* (*Arracacia xanthorrhiza*), cassava, *mashua*, *melloco*, *oca*, *yacón*

Vegetables: native beans, *chayote*, local leafy greens such as *jobyo*, *sukama wiki* (African kale)

Note: For the top five products consumed, the numbers track the exact number of times a food is mentioned from the individual interviewees for each case. The total number of responses for this question was 196; there were 236 independent terms captured, with an average of 6.74 terms per respondent.
Source: authors' elaboration.

the vast majority of respondents, at all levels of education, saw improvements in their health. Interestingly, the largest percentage of respondents with primary and secondary levels of education (about 74 percent) reported that an interest in improving their health was the main reason for joining the initiative. These results can be linked to the ways in which actors are valuing the role of agroecological food as part of their diet and as part of the social or political mission of their initiative (DuPuis, 2000; DuPuis and Gillon, 2009).

We qualify these changes according to the four pillars of food security (Table 2.7). In terms of *availability*, the initiatives under review have increased consumer and producer *access* to seasonal, diverse and agroecological products that were previously not easy to find on local markets. This vision for availability is closely linked to the *stability* requirement for food security as we found that all the producers were purposively diversifying their production in order to be able to supply a range of products consistently throughout the year. The use of box schemes was particularly important here because of the commitment between producers and consumers to keep to a consistent supply/demand schedule throughout the year. Our data about the *utilization* of food point to consumers' interest (including the producer and intermediary categories) in seeking "healthy" products that are used to meet their food security and dietary goals. On this point, it is important to remember that our interviewees are highly educated, but are mostly in the middle-income category compared with the average income where they live. Although producers are generally less educated, with lower incomes than the consumers in our study, we do not report significant differences in the utilization of food. This result shows that there is an important role for the middle classes – in all three respondent categories – in supporting the growth of markets for agroecological food.

Finally, access to agroecological food was a significant priority for the initiatives under study. Overall, 88 percent of respondents reported that their initiative was focused on increasing access to agroecological food. On this point, men (74 percent) responded more enthusiastically about providing food that contributes to a diversified diet

TABLE 2.7
Participating in the initiatives contributes to food security

Food security dimension	Benefits for participants in the initiative	
Availability	Agroecological products Seasonal products Forest products Promotion of local, Andean and traditional products	Collected products Food on the table: available products for daily consumption Exchange of products (more fruit and vegetables)
Access	Easy to find and to buy meat More market channels Substitution of products	
Stability	Diversification of available products motivates creation of new and innovative menus, together with processed products enabling a more stable demand for agroecological products	Stability of supply gives time for consumers to discover and try out the nutritional benefits of products Stability is facilitated by exchange of products (more fruit and vegetables) Promotion of urban agriculture
Utilization	Consumption of a greater quantity of fruit and vegetables Less fast food Less sugar Balanced diet Higher proportion of agroecological products in diet Better (more) taste/colour/texture/appearance Products considered cleaner	Less industrial (processed) products Promotion of own consumption, new products and local vegetables never eaten before More energy (physical sensation) Fewer diseases Feel better Agroecological products are easily digestible (help with gastrointestinal problems) Healthy products Ecofriendly Nutritional

Note: These responses are gathered from the answers received for the following two questions:
Q.7.4 – Because of your participation in this initiative, and changes in the food you eat, have you seen an improvement in your physical or mental health?
Q7.14 – Does your initiative offer easy access (cost and availability) to a diversified diet that respects your food culture or traditions?
Source: authors' elaboration.

BOX 2.8

Merging traditional and agroecological values – Kom Kelluhayin Corporation (CKK), Chile

Name: Kom Kelluhayin Corporation
Region: Temuco
Year initiative created: 2010 [1979]
Producers: 250 [16] families
Consumers: 700 (approximately) via direct sales
Different types of actors in initiative: 4 (producers, consumers, hospitality industry, university)
Average number of links in supply chain: 1 to 2
Core products: quinoa, local beans (porotos), eggs, honey, medicinal herbs, wild collected fruit (wild berries) and seeds
Geographic market size: local and regional
Number of market channels reported by producers in initiative: 6
Type of market system: sociocultural market network

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Mapuche food chart

Founded informally in 1979, the Kom Kelluhayin Corporation (CKK) is the first entirely indigenous Mapuche (*mapu* = earth, *che* = people, or people of the earth) farmers' association to bring together Mapuche families in the Araucanía region of southern Chile to preserve the indigenous gastronomic and cultural traditions through the marketing of products produced by Mapuche farmers. In 2010, with funding from the Foundation of Agricultural Innovation (FIA) of the Ministry of Agriculture, a farmers' group of 16 families in Villarrica set up a public-private partnership among six hotels/restaurants, the farmers' market network (*ferias*), an artisanal association, the Agroindustry Institute of Temuco University of the Frontier, and CKK farmers' organizations to begin direct sourcing of fresh vegetables and quinoa to local restaurants. The objective of the project was to contribute to the ecotourism industry in the Villarrica/Pucón area by promoting Mapuche agro-gastronomy.

In the 1990s, through a programme with Temuco Catholic University, the Mapuche in Villarrica began to learn organic and ecological farming methods, which merged well with the four principles of Mapuche culinary and food traditions.

Once the necessary information has been obtained and the community is willing to become certified, the three key groups of actors are democratically selected by the community: the evaluators, the Guarantee Committee and the PGS agent (who represents the PGS in its relationship with the state).

1. *Nature and ecosystems are living elements*. This animist principle emphasizes that there is a material and spiritual element to the interdependent relationships between the Mapuche people and nature. There are natural forces that temper human behaviour and generate reciprocal relationships and respect for all living things. This principle guides agricultural practices that try not to kill nature, but to promote beneficial interactions between plants, animals, insects and humans.
2. *Food and health are intertwined and constitute the quality of life* (Küme mongen). This principle guides both cultivation and eating practices, as food is considered to be medicine for the body. Eating well is associated with production practices that lead to good health, particularly in the use of diversified plants and seeds that provide different flavours and serve medicinal purposes.
3. *Food is tied to life and sociocultural identity*. Food is seen as constituting a large part of the sociocultural heritage and defines many Mapuche rituals and ceremonies. At the same time, food is part of daily life and the daily habits of slow cooking that bring healthy and tasty food for the satisfaction, well-being and health of those people who consume it. This focus on traditions and flavour translate into equilibrated agricultural practices that protect the native varieties (e.g. beans, quinoa and Araucana chicken) consumed by the local population.
4. *Food production and consumption are connected through nature's vital cycles and its respective seasons*. Seasonality is fundamental and is respected in both traditional culinary dishes and cultivation practices. The Mapuche diet has dishes that are eaten during the rainy season, during the dry season, during plenty and during scarcity. Dishes include food from the garden and the fields (e.g. tomatoes, peas, garlic, onions, potatoes, quinoa), from the diverse livestock (e.g. poultry, lamb, rabbit), and wild collected food from the forests (e.g. fruits, nuts, mushrooms), but they respect seasonality – farmers do not use technology that changes the natural seasonality.

Source: authors' elaboration.

and meets their cultural needs, while women (55 percent) were less enthusiastic, but more positive overall about the food they can access. On the question of access, the most significant distance is found between the Latin American and the African cases. In Africa, more than half the respondents (52 percent) claimed that they are improving access, but not to products that contribute to a diversified diet or cultural needs, while in Latin America, the vast majority claim that their initiatives do improve access to the latter (87 percent). In a further analysis of the reasons for this difference, Figure 2.8 shows the types of food grown by the initiatives. It can be seen that the traditional varieties come mainly from the Andean region of South America. In the African initiatives included in this study, many of the producers are focusing on improved varieties of vegetables and livestock, which contribute to a diversified diet, but not necessarily to a diet that meets their cultural needs.

Thanks to the diverse ecosystems inhabited by the Mapuche, they have been able to cultivate a wide range of produce. Thus, while families maintain a diverse production (vegetables such as beans and maize, fruit, eggs, etc.), the product with the greatest market potential is quinoa. Mapuche quinoa has unique characteristics. It is the southernmost variety found in South America and can grow in cold, lowland climates, and has a particularly strong micronutrient profile (FAO and CIRAD, 2015). With increased production of quinoa, CKK members began a transition from subsistence agriculture towards commercial farming. In this case study, 14 of the 16 farm units involved in the Wemapu cooperative are now consistently selling surplus products on the market. How does the concept of agroecology translate into qualities for agroecological food?

FIGURE 2.9
What qualities do you look for in agroecological products?

Cumulative

Consumers

Intermediaries

Producers

Source: authors' elaboration, based on the analysis of 174 questionnaires.

2.4.3 What are the qualities of agroecological product?

If we follow the reasoning that "agroecological" value derives from the classic definition of agroecology and from the definitions used to define agroecological food, then we would presume that agroecological qualities come from an ecosystems approach leading to no chemicals or low levels of chemicals, and therefore no residues and consequently safe products; adaptation of production to local conditions and thus a focus on local breeds and native varieties; and synergies between plants and healthy soils that leads to nutritious food. However, we find these relationships too theoretical for interviewees when asking the straightforward question: "What qualities do you look for in agroecological products?" Instead, we received responses that focused primarily on the extrinsic organoleptic qualities of the food itself and on qualities that could be experienced directly by those who eat the products (Figure 2.9). Therefore, we see that taste and freshness dominate and cleanliness is referred to not in relationship to production methods, but rather in terms of seeking products that have been washed (or unwashed in some cases).

It is clear from examining the different groups of responses in Figure 2.9 that different actors in the agroecological food systems look for different qualities in agroecological products. As we saw in the responses to the notion of agroecology, we also see that organic is a common product quality and agroecological appears far less often. In most cases, the request for organic products came from the intermediaries who were looking for certification.

> *In Benin, for instance, one intermediary claimed that organic is a quality requirement, "but the consumers still don't know what this means. Typically, they are looking for texture as an indicator – the egg yolk stays separate from the egg white". Consumers are in fact looking for specific flavours that they can taste or see; while producers refer to qualities that have also to do with the appearance of products – these are more technical in terms of what they need to do (or not do) in order to prepare their products for market. Packaging was important for intermediaries and was also mentioned by producers. Interestingly, social benefits were mentioned by just a small number of producers, but trust and personal contact emerged in the responses from consumers and intermediaries. These values are important indicators of a quality "relationship" that is being forged through these initiatives.*

In examining the arguments of the different actors when they explain what they mean by quality in the broader context of how they view their food systems, we find discussions of a range of values (social, cultural, agroecological and nutritional) that are being served through the initiatives. Table 2.8 gives a sample of quotes from the open-ended questionnaire responses that illustrate some of the core themes that emerged from the data. We can summarize these arguments as an idea that agroecological food is food for everyone because it contributes to the improved consciousness of food system actors by creating local food systems that provide fresh, nutritious, safe and diversified food, which also respects the natural cycles, health and seasonality of the production system. This confirms the results from a recent study that shows that consumers are similarly choosing organic, based on their concern for health and the environment (Bernal León, Valenzuela García and Lara Enríquez, 2016). Articulating these values is an important part of this process, which is explained in the next section.

2.4.4 How is value communicated?

A 2005 study on green and organic consumption shows that although about 70 percent of people in northern countries, such as the United States of America, call themselves "environmentalists" and would choose a more environmentally friendly product if given the option, only 10–12 percent of consumers actually purchase environmentally friendly products, because of the greater value placed on the price, quality, style and convenience of conventional products (O'Rourke, 2005). More recent literature claims that this is because consumers are not aware of the environmental and social impacts of the products that they buy, but over the years this has changed and it is becoming possible to link the environmental consciousness and beliefs of consumers with their intention to use green products (Yadav and Pathak, 2016; Chen and Hung, 2016). Thus, the ability to articulate accurately the value that agroecological products give to participants in these initiatives is a core challenge, which can be solved through the use of direct contact, certification and labels.

TABLE 2.8
Arguments for agroecological food and its qualities

Themes	Examples
A human right	"Organic products are those that the whole population should eat; the African population above all should eat organic products" (*intermediary, Benin*)
	"All humans need healthy food to survive" (*intermediary, Brazil*)
Nutritional food	"It has medicinal values; and full nutritional content" (*consumer, Uganda*)
	"food that is produced from a whole nutrient cycle" (*producer, Namibia*)
	"… the more you eat it, the more you help your body function" (*intermediary, Benin*)
	"Good food for each one; for us health; food that prevents disease in our family; food has no poison" (*producer, Brazil*)
	"healthy food; gives energy" (*consumer/processor, Chile*)
Healthy production	"healthy and sustainable production for future communities" (*producer, Mozambique*)
Organoleptic qualities	"it has better taste … and agroecological product has taste" (*consumer, Chile*)
	"It tastes like food I ate in my childhood and is safe to consume" (*producer, China*)
	"strong food, nutritional food, tasty food" (*intermediary, Brazil*)
	"products with energy, clean" (France) … "eating organic is delicious, it is a pleasure" (*intermediary, Colombia*) … "It has natural aroma; it is more nutritious" (*producer, Uganda*)
Diversified food	"healthy food, full of fruit and vegetables" (*processor, Chile*)
	"fresh food … there is more diversity" (*intermediaries, Bolivia*)
	"New products such as pearl barley; to produce broad bean soup and tortillas, we need creativity, innovation, an innovative process" (*producer, Colombia*)
	"diversified farm" (*intermediary, France*)
Safe food with no toxins	"strong food; nutritional food; tasty food; without pesticides; that I can consume without harming my health" (*intermediary, Brazil*)
	"It is food I feel safe to consume since it is free from chemicals; it poses no danger to cause cancer or other diseases that may arise from use of toxic chemicals on our fields" (*producer, Uganda*)
	"without chemicals; taking care of health; giving more longevity" (*consumer, Bolivia*)
	"free of diseases because is free of chemical pollution" (*producer, Ecuador*)
Natural	"we purchase natural and organic in order to avoid gastrointestinal problems" (*intermediary, Benin*)
	"everything is to do with harmony; without external aids (*consumer, Colombia*)
	"You cannot force the yields, no synthetic inputs, it needs to be natural (*consumer, Benin*)
	"organic products; without colourants; natural" (*producer, Colombia*)
Fresh and seasonal	"It is important that the products be fresh; this is what makes the difference" (*intermediary, Benin*)
	"fresh food; health (*intermediary, Bolivia*)
	"seasonal production" (*intermediary, France*)
	"seasonal; respects seasons" (*consumers, France*)
	"has been produced naturally … usually seasonally available" (*consumer, Namibia*)
Local food systems	"in short chains, local and seasonal" (*intermediary, France*)
	"coming from nearby; in short chains; local origin" (*consumer, France*)
	"agroecological food is needed to grow in local areas […] also, in terms of social relations, agroecological food should indicate that it is grown by farmers who have taken an active role in the production process, through which rural society is becoming a healthier ecosystem suitable for local residents" (*consumer, China*)

TABLE 2.8
(continued)

Themes	Examples
Creation of consciousness	"to understand that we have to change our food"(*consumer, Ecuador*)
	"which helps not only human health but also the mind"(*consumer, Colombia*)
	"the way that we have to take for personal care" (*intermediary, Colombia*)
	"generating consciousness in healthy food" (*producer, Colombia*) "consciousness in consumption and production" (*producer, Colombia*)
	"agroecological food is more conscious food; you are conscious that you are eating food and not poison" (*intermediary, Chile*)
	"consciousness in consumption and production" (*producer, Colombia*)
	"We are now more mindful about our daily diet; it should be balanced. We have more variety since we now make a deliberate effort to plant variety for different values such nutrition, ecosystem services and for the market we serve. We are able to have at least two meals a day in our households since the practices we use enable us to have household food security in mind" (*intermediary/producer, Uganda*)

Source: authors' elaboration.

BOX 2.9
Establishing organic quality for agroecological production – Namibian Organic Association (NOA)

Name: Namibian Organic Association
Region: Namibia
Year initiative created: 2009
Producers: 11 certified farmers
Consumers: NOA members
Different types of actors in initiative: 3 (producers, consumers, retailers)
Average number of links in supply chain: 1.7
Core products: fruit and vegetables, meat, grains, eggs, ice cream
Geographic market size: local, regional and national
Number of market channels reported by producers in initiative: 11
Type of market system: information-rich market network

The current ecosystemic and climatic conditions of Namibia – characterized by desert, arid and semi-arid soils, dry subhumid climate and low rainfall – make this country one of the most vulnerable to the impacts of climate change. The harsh climatic conditions are worsening because of the high dependence of the country on the use of natural resources to feed and guarantee the well-being of the population. However, the use of these natural resources is not taking place in a sustainable way, since the development of agriculture and the mining and tourism industries – the three pillars of the Namibian economy – are relying too heavily on current resource availability.

As a response to these environmental and economic concerns, the Namibian Organic Association (NOA), created in 2009, is a pioneer member-based organization of organic farmers and consumers demanding high quality and organic, ecofriendly and healthy food in the country. NOA is unique in the agricultural sector of Namibia as it has contributed to building recognition of the organic concept in the country. NOA offers training (from small-scale vegetable gardening techniques to international organic courses); an electronic newsletter, the annual Living in Organic Times publication; social events/farm visits; and a vibrant business community. NOA is actively leading efforts to promote sustainable agriculture and livestock practices. In 2015, a NOA farmer received recognition for her efforts by being awarded the Namibian Agricultural Union's 2015 Young Farmer of the Year.[4] This was the first time the award had been given to an organic (holistic management) farmer and to a woman.

[4] http://www.farmersweekly.co.za/news.aspx?id=79657&h=Namibia%E2%80%99s-Young-Farmer-of-the-Year (accessed 31 March 2016).

BOX 2.9 (*continued*)

NOA organizes its food system around a locally adapted Participatory Guarantee System (PGS) to support farmers in accessing local markets and to guarantee organic and sustainable practices and products. As of 2015, NOA's PGS consisted of a network of 11 certified farmers who cultivate about 30 000 ha organically. The organic production sector and domestic market were too small to justify the general promotion and adoption of third-party certification. Therefore, the development of NOA PGS was the result of a need to formalize the sector. Consumers wanted to make informed purchasing decisions and required labelled organic food, while farmers wanted to receive recognition for the fact that their products differ from conventional products. PGS addressed the situation in which, without appropriate Namibian legislation, standards and a certification structure, the organic market was exposed to misleading claims and subsequent abuse of consumers' trust in organic food. The NOA PGS guarantees the organic quality of products produced according to organic standards and labels them with NOA marks. NOA's standards and labels system ensures that organic products are differentiated from conventional (and imported organic) products. This generates benefits for all actors involved in NOA. The decision to promote the use of the term organic, in a country where there is no legislation protecting the use of the word, was a strategic decision taken by the group because of the strong influence of the South African Organic Movement and its interest in taking part in the global organic movement.

Source: authors' elaboration.

Direct contact and experience

Agroecological value is communicated mainly by direct contact between consumers and producers (all 12 cases reported this). More than often, this direct communication occurs in physical meetings at markets or farm visits (Figure 2.10). These results are not surprising, given the dominance of direct sales and on-farm sales that were found in the market channels. Feedback and communication are the means through which producers,

FIGURE 2.10
How do you communicate quality and prices?

Source: authors' elaboration, based on analysis of 187 responses to 4 questions.

BOX 2.10

Direct contact as a way to communicate quality – Akmola Traditional Dairy Producers (ATDP), Kazakhstan

Name: Akmola Traditional Dairy Producers
Region: Akmola
Year initiative created: 2008
Producers: 150 households
Consumers: 410 members
Different types of actors in initiative: 3 (producers, consumers, NGOs)
Average number of links in supply chain: 2.5
Core products: dairy products, vegetables
Geographic market size: local and regional
Number of market channels reported by producers in initiative: 5
Type of market system: diversified market network


©ATDP, 2016

Taste testing traditional products on Terra Madre Day

In 2008, the Akmola Traditional Dairy Producers (ATDP) initiative was created in order to meet community demand for high-quality and traditional dairy products. ATDP is a community initiative composed principally of women from the village of Karabulak in the northern region of Akmola. The community was organized in 2008 by the "Jer-Ana Astana" (JAA) rural community NGO – the only active NGO that supports and represents the interests of rural residents in Kazakhstan – and by the Akmola Slow Food Convivium. The objective in creating the initiative was to unite small and medium farmers/households that were passionate about their work and about safeguarding traditional methods of farming and processing. The initial group was composed of ten people, but the number of participants has now risen to 410, including men and women rural residents, young activists and volunteers.

Today, ATDP involves women (about 150 households and 12 farmers in the farmers' market), who not only make traditional dairy products such as *kumys* (fermented mares' milk), *qurt* (dried curd milk), *shubat* (fermented camel milk),[5] *ayran* (yoghurt), *kaymak* (sour cream), *irimshik* (cottage cheese), *kospa* (curd dessert) and other dairy products, but also organize and participate in various types of events and seminars. JAA acts as a key intermediary in building the women's capacity in good agricultural practices, documentation and access to public subsidies. The public sector facilitates space for the farmers' market and about 30 consumers are dedicated to the initiative via their interest in upholding responsible and traditional consumption practices.

Most of the sales come from direct interaction between producers and consumers via on-farm sales to neighbours and friends, local markets and the farmers' market. The physical attributes of products are valued less in this initiative since consumers base their purchases on trust in the farmers' reputation. Visual and sensorial attributes are often important for a first-time purchase from a specific market channel, such as fairs. However, once the product has been tasted and its quality assessed by personal experience, trust and ecological qualities are the attributes most used to qualify agroecological products. One of the consumers interviewed summarized this way of valuing the products, by saying: "At fairs [products] are usually sold by the producers themselves. Products taste better and more natural. They have quality, they are natural and prices are correspondingly high". Through these direct interactions, producers share information about traditional production practices and also share recipes with the community. On-farm visits and direct sales are the principal spaces where discussions and demonstrations take place. These activities enable consumers to obtain more information to facilitate their purchase decisions. One producer explained the experience as follows: "Buying directly from the farm, you can personally see the production, the quality and participate in a master class …". Producers and consumers participate in discussion spaces for meetings, events, workshops, charity festivals, conference speeches and promotion. The initiative also uses other media such as the Internet and social media, fairs, conferences, radio and television; producers often communicate with consumers via e-mail. Thus, through these events organized by Slow Food Akmola, information about product quality, price and use are all shared.

Source: authors' elaboration.

[5] *Shubat* is a product of the western region of Kazakhstan; camels are not bred in the Akmola region.

intermediaries and consumers work on improving the quality of their products, negotiate prices and create a sense of belonging to a common effort. Taking the time to visit each other means that consumers, intermediaries and producers are forging stronger social relations. This builds the trust that emerged as an important value in agroecological quality.

A number of stimulating activities have been organized by the initiatives that increase the opportunities for direct communication and contact, particularly between producers and consumers. For example, the Earth Market in Maputo adapted the Slow Food model to its farmers' market as a way to create a physical space of direct interaction between producers and consumers. In this market, a small group of producers bring their products directly to the market where cultural and educational activities, including taste testing, take place. The theme of taste testing was one of the innovative methods of communication about quality that was used by producers and intermediaries. We found that in many initiatives there are small groups of loyal customers who gain access to new products before they are officially on the market. For example, there is an Ice Cream Club in Namibia; there are "loyal clients" in Benin and Uganda; there is a Consumer Club in Chile; and there is a special agreement with a culinary school in Colombia. These small select groups gain early access to new varieties and have a direct influence on producers' production planning through feedback about the foods they prefer. Farm visits, both organized as learning experiences as in Ecuador and through on-farm sales as organized through the on-farm canteen in China, were the most frequently used form of direct interaction (see Box 2.10). Through these types of activities, a dialogue on value is opened up and maintained between producers and consumers.

Certification and labels

While direct communication of quality and price was the method most often used in these cases, there is also evidence of the use of internally managed quality control systems across the 12 cases, which enable producers to communicate quality on product labels, which are a mix of brand names and certification seals (Table 2.9).

All but two of our cases implement a form of quality control management (2 out of 12), less than half (5 out of 12) rely upon oral agreements and half (6 out of 12) use a form of PGS to control the quality of their products. Data related to formal and informal certification of agroecological production paint a more nuanced picture as to how consumers and producers can be sure of agroecological production practices. Various approaches are used across the 12 cases to guarantee the agroecological quality of products. Five initiatives do not use a formal verification of agroecological practices and seven initiatives use third-party certification for national public or international standards. The single most frequently used forms of certification are third-party certification for an international standard and PGS for a private standard or label.

As a general trend, the initiatives use only one form of certification (9 out of 12). There is only one initiative that relies solely on third-party certification, which is Brazil. This is because the initiative's main product under agroecological cultivation (*guaraná*) is sold for export via fair trade and EU Organic certified channels. When this product is consumed within the community, there is no need for a verification process. There are only two other initiatives that use third-party certification (the Plurinational State of Bolivia and Uganda), but they use this together with an active PGS. All the other initiatives (9 out of 12) use less formal mechanisms, PGS or multiple informal controls, which enable them to be more diversified in the types of markets they serve – particularly in reaching local and domestic markets. This suggests that markets for certified organic, in the sense of state-recognized third-party certification, are not being accounted for in the markets where agroecological products are sold. In addition, it suggests that informal mechanisms, such as direct communication among producers, intermediaries and consumers, are often being used to ensure agroecological production quality, as explored in the previous section ("direct contact and experience").

We also found that labels were an important part of the majority of the initiatives included in this study (8 out of 12 cases). In the four cases where labels were not used (Ecuador, China, Kazakhstan and Mozambique), we learned that producers and consumers rely mainly on direct communication through the box scheme in Ecuador, CSA membership in China, direct on-farm sales in Kazakhstan and at the Earth Market in Mozambique.

> *We received the following report from the consumer focus group in China, explaining how quality is perceived by members of the initiative. "They mostly relied on the taste of the products, as agroecological products resemble food they consumed in their childhood when industrial farming*

was not introduced to China. Relying on taste is the most direct way, yet some members argued that it was not easy for them to sense the quality of agroecological products or to tell the quality difference. As a result, they relied largely on information from the initiative to judge the quality. For this reason, trustworthiness is seen by many as the core quality in their decision of choosing a buyer. After their choice of a buyer, they rarely questioned much about details of product qualities as they only had limited time and energy to care about this issue."

The main reason for adopting a label by an initiative was to create an identity for producers or for their vision of agroecology, particularly if it was captured in a formal standard (see Table 2.9). We can distinguish two kinds of labels that are used.

Differentiated labels. These are labels that differentiate the products not by producer group, but according to a fixed standard. The labels are meant to differentiate between different levels of compliance with the standard (e.g. full, partial, ingredient specific) and are most often found where there are well-established standards, such as in the Plurinational State of Bolivia, Brazil or Namibia.

TABLE 2.9
Use of standards and labels

Country	Standard	Documented internal system	Oral agreements	Verification	Label
Benin	Private (enterprise standard)	☑	☑	Informal (receipt system, training and site visits)	Brand (Songhaï)
Bolivia	National Law EU Organic	☑	☑	3PC PGS	Differentiated (Ecological, In Transition)
Brazil	National Law (community production protocol)	☑		3PC for an international standard	Differentiated (Fair trade, EU Organic)
Chile	Private (producers' organization standard)	☑	☑	Informal (social control)	Brand (Mapuche community ethical label)
China	Private (CSA standard)		☑	Informal (consumer farm visits)	No
Colombia	Private (enterprise standard)	☑	☑	PGS	Brand (Familia de la Tierra)
Ecuador	Private (NGO guidance)		☑	Informal (consumer farm visits)	No
France	Private (written charter)	☑		PGS	Differentiated (Ici.C.Local)
Kazakhstan	No (traditional practices)			Informal (consumer farm visits)	No
Mozambique	Private (NGO guidance)			Informal (producer/consumer interaction at market)	No (but labelled with Slow Food symbol)
Namibia	Private (IFOAM compliant standard)	☑		PGS	Differentiated (NOA label: Organic, In transition, ingredients)
Uganda	Private (East African Organic Products Standard) Public (EU Organic)	☑	☑	PGS 3PC	Brand and differentiated (Kilimo Hai and Freshveggies)

Note: 3PC = third part certification system.
Source: authors' elaboration.

BOX 2.11

Using labels to identify proximity – Grabels market and Ici.C.Local, France

Name: Grabels market and Ici.C.Local
Region: Grabels, Languedoc-Roussillon
Year initiative created: 2008
Producers: 120 direct and indirect farmers
Consumers: about 600 customers each week, representing 1 500 local and regional consumers
Different types of actors in initiative: 7 (producers and artisans, consumers, municipal authority, researchers, wholesalers, retailers, service providers)
Average number of links in supply chain: 1.2
Core products: fruit, vegetables, olive oil, wine, meat, bread, beer, eggs, goat cheese, roast chicken, fish, honey, seafood
Geographic market size: local and regional
Number of market channels reported by producers in initiative: 9
Type of market system: interactive market network

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Different coloured labels signal local short chains and "sustainable" products for different distances travelled by food

The Languedoc-Roussillon region in the South of France has historically been dedicated to mass agricultural production and long food supply chains. Local food chains have been emerging over the last few years, but most of them are focused on high-income and highly educated consumers. Grabels market is an innovative short chain open-air market created in 2008 in Grabels, a small town of 7 000 inhabitants located in the suburbs of Montpellier (500 000 inhabitants, including the peri-urban area). By establishing a market in 2008, the newly elected local authority aimed to revive the dormant town, giving its middle-income inhabitants the chance to obtain fresher and better products, and supporting local small-scale agriculture. The local team preferred not to have a farmers' market nor an organic one, which it considered too elitist and unable to meet demand throughout the year. With support from the French National Institute for Agricultural Research (INRA), a new type of open-air market was implemented, attracting producers as well as artisans and intermediaries mainly procuring products or raw materials directly from regional producers, respecting the principles of sustainable agriculture. Moreover, from the outset the market has always been oriented towards local and regional consumers.

The market is based on a charter, which people have to sign before becoming members, as well as on a collegial steering committee of the local authority, consumers and suppliers. This committee controls the application of the charter, notably by visits to farms and enterprises. In 2010, in order to dispel any doubt about the provenance of products, the local authority, with INRA's help, implemented a labelling system whereby a coloured label on each market product showed both its geographical origin and the intermediaries between product and consumer. Where there was no intermediary, the colour was green; orange with one intermediary and locally sourced; purple when coming from farther afield. Moreover, green- and orange-labelled products had to respect the principles of sustainable agriculture as defined in the charter. In 2014, this system (charter, labelling, committee, participatory control) was protected by a free collective trademark: Ici.C.Local (Innovation for cooperation and communication in local chains), which is becoming widespread in France and can be applied in both open-air markets and retail shops. In each territory of application, a local committee brings together producers, artisans, resellers, consumers, and, if possible, the local authority, and members have to decide collectively what they consider to be "local" and "sustainable" before products are labelled. Grabels, for instance, chose a maximum distance of 200 km as being local, while the committee decided to impose seasonality, low-input agriculture, no battery farming, heated greenhouses and no GMOs in animal feeding as sustainable criteria. These criteria, which must be clearly communicated to consumers, are consistent with the history, constraints and project of each territory and are expected to evolve. Local committees control the use of labels, as in other PGS cases (by farm visits, etc.).

Source: authors' elaboration.

These labels are also linked to the third-party or PGS certification system. The differentiated labelling system in France refers to the distance that products have travelled, number of intermediaries and production system, but every local group is still allowed to define its own unique criteria regarding what is considered local and sustainable (see Box 2.11).

Brand labels. These labels link products directly to producer groups and create a market identity for them. We found evidence for this in our data, with consistent reference to brand names as a clear quality indicator. This was particularly the case with the Songhaï brand and the Mapuche ethical label, which were synonymous with a high-quality product.

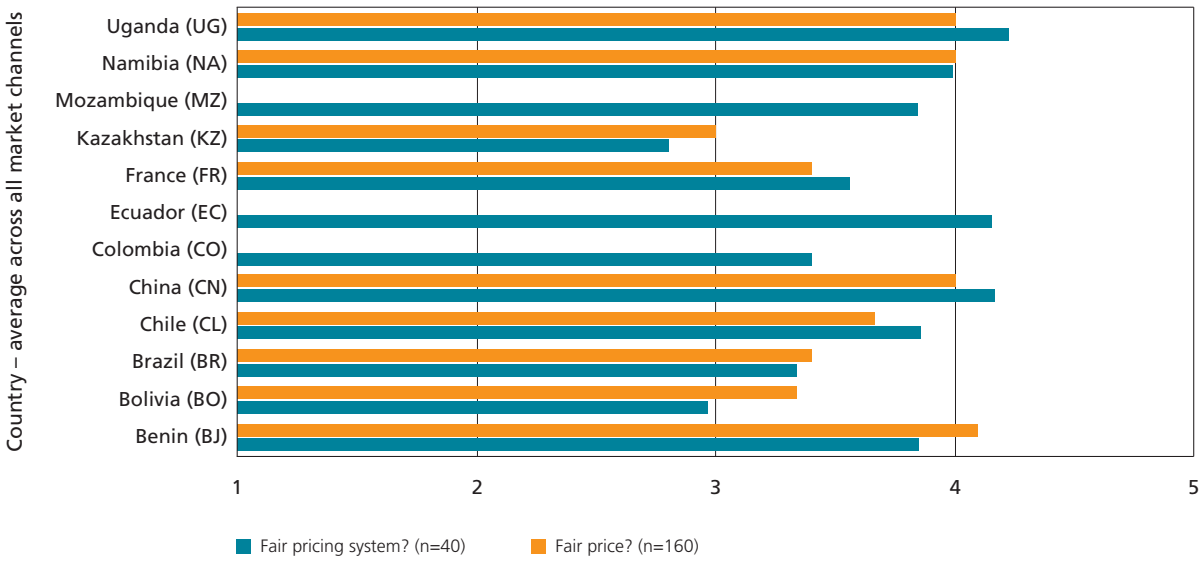
> *One intermediary, who had launched a Songhaï brand boutique in Cotonou explained the importance of this type of label. "The Songhaï label is well known. If the products didn't carry the Songhai label, it would have been very difficult to launch the store. My brother, who did an internship at the Songhaï Centre, helped me a lot. I made many visits to the production sites and personal research was the means through which I learned about quality."*

As the above quote illustrates, even when labels are used, personal contact and pre-existing relationships remain important means of building these initiatives. This also supports the findings that despite geographic expansion, these initiatives keep a strong focus on the maintenance of community relationships.

2.4.5 Is agroecological food priced fairly?

Alongside quality, price is used most often as an indicator of worth in market exchanges. Whether a price adequately reflects the value of a product is dependent on the influences of national, regional and global market dynamics on local markets and their prices. There is a general trend around the world for organic certified products to carry prices that are higher than conventional products (Willer and Lernoud, 2016). These higher prices are typically considered to be price premiums because consumers are willing to pay more for organic products (Willer and Lernoud, 2016) and often reflect the significant premiums that farmers receive for organic exports, which are often 20 percent higher than conventional prices (FAO, 1999a). It is not clear, however, whether these premiums always cover the costs of production or are considered to be fair. We are interested in understanding whether or not the prices for agroecological products follow similar trends.

FIGURE 2.11
How fair are agroecological food prices?



Note: 1 = Very unfair; 5 = Very fair.
Source: authors' elaboration.

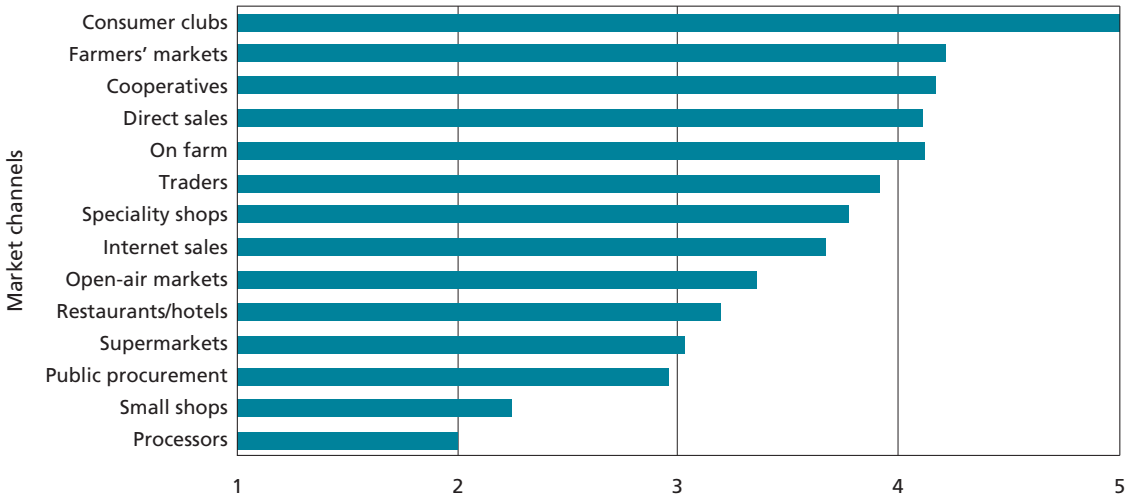
In order to understand how these prices work, we sought information not only about actors' perceptions of the prices of the products themselves, but also about the fairness of the system for setting prices (Figure 2.11), as we learned that each initiative had a slightly different method for determining the prices of its products. In all cases, respondents reported that prices are set by producers and intermediaries, while consumers are typically price takers. There is an even split in the ways that producers set their prices – six base their prices on cost calculations, while six rely solely on market prices (both for certified organic and, more often, conventional). There is always room to negotiate and producers rely upon feedback from consumers and intermediaries to adjust their prices to local market prices and provide discounts to loyal customers. A good example of producers and consumers setting up a formal price negotiation committee – similar in nature to a food price council – is found in the case of Canasta Utopía in Ecuador (see Box 2.12).

There are differences in how fair the prices are perceived to be, according to the specific market channels where the products are sold (Figure 2.12). We see a convergence between channels that are perceived to have fairer prices and the market channels most often used (cf. Figure 2.6). This further confirms that producers, intermediaries and consumers are strategically using direct selling techniques because they believe that these forms of exchange are more equitable than others.

Overall, the prices were considered to be fair by all actors in the system (Figure 2.11). Those in Kazakhstan and the Plurinational State of Bolivia felt that their prices were the least fair, but in both cases they felt that the system for setting prices was fair. Nevertheless, all consumers are generally aware of the greater costs of production, and are willing to pay more in order to ensure that producers receive a fair price for their products (Figure 2.13). When we looked at whether consumers are paying more for agroecological products and whether they are willing to pay more, it emerged that Bolivia is not paying a higher price for its products, but is willing to pay more, which means that consumers do not think they are paying as much as they should for agroecological products. This is in line with their feelings about the fairness of the price, which we can interpret to mean that it is not fair because it is not high enough. On the other hand, Kazakhstan is not paying a higher price, but consumers feel that they should be paying less. This also reflects the unfairness of their prices from Figure 2.11, but in this case the unfairness comes from prices that are too high.

These responses become even clearer when we understand the rationality of consumers, who explain why they accept the prices set by producers:

FIGURE 2.12
Do some market channels offer fairer prices than others?



Note: 1 = Very unfair; 5 = Very fair.
Source: authors' elaboration, based on responses from 131 questionnaires.

FIGURE 2.13
Consumers' perception of how much they pay and would pay for agroecological products

Note: 1 = Lower; 2 = Same; 3 = Higher.
Source: authors' elaboration.

> *"Compared with conventional market prices, those of Shared Harvest vegetables are relatively low and of good quality" (China).*
> *"If the product is good, I pay what I have to pay" (Colombia).*
> *"We receive a good product for the price; the price is cheap … but … prices have to be increased to represent farmers' labour better; even when we have no money, we can receive the* canasta *on credit (Ecuador).*
> *In Grabels, products are good: price does not count a lot" (France).*
> *"At fairs, products are usually sold by producers themselves. Products taste better and more natural. They have quality, they are natural and prices are correspondingly high" (Kazakhstan).*

Generally, the consumers that were interviewed in these case studies seem to be insensitive to price (except for Kazakhstan and Uganda), or at least they placed a lower priority on the price of the product when determining quality. This finding is in line with the literature which suggests that "ethical" consumers[6] are less price sensitive than others (Arnot, Boxall and Cash, 2006). This is often explained as being tied to their relatively higher socio-economic status. However, our interviewees declared themselves to be mostly middle income, compared with the average incomes where they live – this offers an interesting avenue for future research. It also leads us to conclude that based on the data collected from these 12 different cases, agroecologically farmed products are not systematically more expensive than conventional products. In the majority of cases, prices are either the same or lower than conventional products. In short, evidence from these 12 case studies points to the emergence of market forms that enable producers and consumers to value agroecological production practices. Moreover, while there is an overlap with organic markets, particularly in Africa, we see that the way in which value is allocated to agroecological products – basically perceived as being organic by consumers and producers in these initiatives – mainly occurs outside official organic certified markets. This poses questions about the role and influence of the language of organic within emerging markets for agroecology in different countries.

[6] In the literature, ethical consumers refer to a class of consumers who purchase ethical, green, sustainable, organic and fair trade products.

BOX 2.12

A fair pricing system – Canasta Comunitaria Utopía (CCU), Ecuador

Name: Canasta Comunitaria Utopía
Region: Riobamba
Year initiative created: 2010
Producers: 100 family farms
Consumers: 100 families
Different types of actors in initiative: 4 (producers, consumers, cooperatives, NGO)
Average number of links in supply chain: 1.5
Core products: Andean fruit and vegetables, Andean roots and tubers (*mashua*, *oca*, *melloco*, etc.), flour, eggs, cheeses, organic inputs
Geographic market size: local (CCU), regional (market channels, producers' association and independents) and national
Number of market channels reported by producers in initiative: 6
Type of market system: interactive market network

©EkoRural
Canasta Comunitaria Utopía pick-up space

Since its creation in 2000, the Canasta Comunitaria Utopía (CCU) is an organization of seven low- to middle-income urban families concerned about access to good-quality food. CCU's main objective is to work as a food cooperative with a common marketing approach that ensures access to healthy food and, at the same time, has the advantage of purchasing products in bulk to save money (30–50 percent). In the past, participants would all contribute to buying products and then divide them equally. However, in 2010, supported by the Utopía Foundation (an urban development organization) and the EkoRural Foundation (a rural development organization), the initiative established a direct market relationship with members of the New Generation Association [*Asociación Nueva Generación*], a small producers' association in Tzimbuto. This association has multi-actor direct link with small producers to whom it redirect the demand for agroecological and fresh products.

CCU now includes about 100 producers and 100 families in Riobamba. These families access agroecological products principally through *canastas* (boxes or baskets) on a specified "Canasta Day". Two weeks before the Canasta, interested families pay a fixed fee per box/basket. This strategy helps CCU agents to know how many boxes/baskets to prepare for the next Canasta Day. This Day is the main event promoted by the CCU initiative and takes place every two weeks.

CCU prices are established at an Annual Assembly with the Utopia Foundation, EkoRural and the New Generation Association, where information about production costs and challenges is shared by participating producers, consumers and managers. These prices remain fixed throughout the year. However, when it is necessary to make changes or set prices, CCU organizes an extraordinary assembly with consumers. The changes are also communicated by cell phone, word-of-mouth, price lists and weekly newsletters. CCU agents and producers are responsible for sharing and communicating prices to consumers. The assemblies and direct contact on Canasta Day enable prices to be negotiated among producers and consumers. These discussion spaces provide feedback on prices and help in building up trust and transparency in the initiative.

Source: authors' elaboration.

Chapter 3
Agroecological markets

Key messages

Short food supply chains are common:
- *average number of exchanges are between one and two;*
- average number of actors in the network are between four and five.

Four types of *nested* market networks can be distinguished for agroecology:
- information-rich;
- interactive;
- diversified;
- sociocultural.

Initiatives are generally seen as *sustainable*, but there are differences in perceptions among actors and types of markets.

There have been increases in the availability of and access to agroecological products on local markets and there is room for growth.

There is a great deal of literature on the variety of forms that markets can take; each study has its own analytical framework for differentiating between these forms (FAO, 2013c; Polanyi, 1957). Recent studies have classified different forms based on the concepts of quality, reduced number of intermediaries and geographic proximity, labelling these "alternative agrifood systems" or "short circuit food chains" (Chiffoleau, 2012; Chiffoleau and Prévost, 2012; Goodman, duPuis and Goodman, 2012; Renting, Marsden and Banks, 2003). Some of these classifications are useful to help identify certain defining features of agroecological food systems.

Since organic agriculture systems and products are not always certified and can be referred to as "non-certified organic agriculture or products", FAO (1999b) had previously identified three different driving forces for organic agriculture, which are given again here.

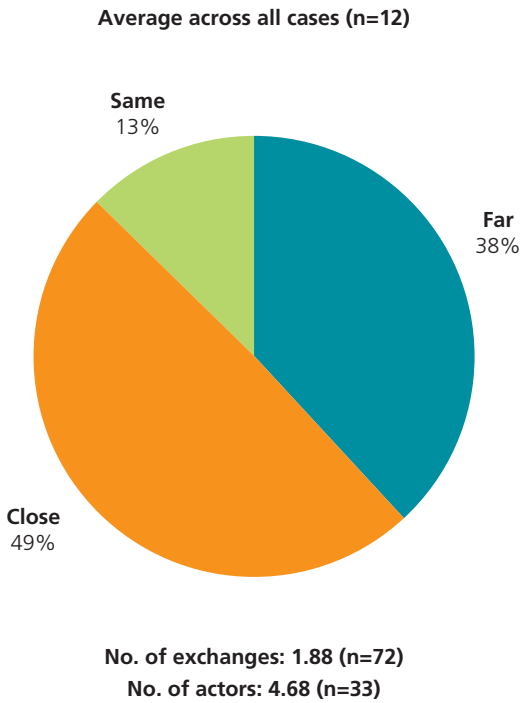
1. "*Consumer- or market-driven organic agriculture.* Products are clearly identified through certification and labelling. Consumers take a conscious decision on how their food is produced, processed, handled and marketed. The consumer therefore has a strong influence over organic production."
2. "Service-driven organic agriculture. In countries such as in the European Union (EU), subsidies for organic agriculture are available to generate environmental goods and services, such as reducing groundwater pollution or creating a more biologically diverse landscape."
3. "*Farmer-driven organic agriculture.* Some farmers believe that conventional agriculture is unsustainable and have developed alternative modes of production to improve their family health, farm economies and/or self-reliance. In many developing countries, organic agriculture is adopted as a method to improve household food security or to achieve a reduction of input costs. Produce is not necessarily sold on the market or is sold without a price distinction as it is not certified. In developed countries, small farmers are increasingly developing direct channels to deliver non-certified organic produce to consumers. In the United States of America, farmers marketing small quantities of organic products are formally exempt from certification".

All these types of markets have been identified (van der Ploeg, Jingzhong and Schneider, 2012; Hebinck, Schneider and van der Ploeg, 2014) as "nested" markets, formed within existing dominant markets as a response to a variety of market failures (i.e. where the market does not efficiently allocate goods and services between producers and consumers). They are the result of social struggles and mobilize the specificities of place and networks to create spaces where quality prod-

ucts receiving premium prices can be exchanged. Elsewhere, van der Ploeg (2014) has argued that peasant agriculture provides significant room for innovation, particularly in the forms of markets that are created, which has also been documented by FAO (2016a). Recent advances in theories of value chains and alternative agrifood systems have added the concept of markets embedded in "sociospatial territories", which are important parts of rural development strategies where community investment is focused on the development of exchanges that benefit the community (Milone, Ventura and Ye, 2015; Brunori *et al.*, 2016).

By examining the circular economies between food, energy and chemical systems, Colonna, Fournier and Touzard (2013) elaborated a typology of food systems that are analytically differentiated by structural, political, institutional and cognitive variables. Particularly of interest for the cases included in this study are the domestic, local and differentiated quality food systems – which ostensibly contain the same criteria as the notion of "nested" markets mentioned above. The cognitive dimension in these systems is particularly important for understanding our cases, as we found that the valuation process requires significant work on the part of actors to create a common understanding of agroecological qualities.

FIGURE 3.1
How close are consumers and producers?



Note: Percentages are aggregated at the level of the case. Twelve cases are examined with 221 individual responses for question 1.8: "Do you think that you live close to the producers who grow the agroecological products that you eat?" For the number of exchanges and the number of actors, the individual responses to these questions are given in the figure.
Source: authors' elaboration.

Figure 3.1 shows the aggregated results from the 12 cases regarding the indicators that enable the size of these systems to be analysed. On average, there are between four and five different actors working together in network formations (non-hierarchic relationships operating within their own organizational structures) and agroecological products change hands about twice in these networks. Based on these criteria, the supply chains across the 12 initiatives can be classified as being "short food supply chains".

In order to take the political and cognitive aspects of distance into account, we asked respondents how close they felt that they lived from the site of production or consumption. The results are mixed, with more than half (62 percent) saying that they live close, but 38 percent saying that they live far away from their consumers or producers. This demonstrates that a short food supply chain can be conceived as either a physical distance or as a cognitive distance, based on the number of actors involved in linking production and consumption.

As a result of these findings, we use the term "nested" market rather than "local food system", because our analysis was limited to the market exchanges for agroecological inputs and products and we could not conduct a full food system analysis based on the data available. Moreover, the fact that there was a feeling of spatial distance between production and consumption – in some cases because of the types of farming systems (e.g. in Namibia) and in others because of the export market channels for some products (e.g. in Brazil and the Plurinational State of Bolivia) – we find that the term "nested" is better suited to these types of market relationships.

3.1 NESTED MARKET NETWORKS FOR AGROECOLOGY

As part of the data analysis, information was collected about the key actors in each of the initiatives and the flows of knowledge and other support within these networks. In our systems, we find combinations of consumer- and farmer-driven organic (as identified by FAO), whereby the key actor is an intermediary. There is an emerging literature on the importance of intermediaries within food system transitions (Hargreaves *et al.*,

TABLE 3.1
Nested market networks for agroecology

PARTICIPATION IN MARKET EXCHANGES	DIVERSITY OF INTERMEDIARY MARKET-MAKING ACTIVITIES: LOW	DIVERSITY OF INTERMEDIARY MARKET-MAKING ACTIVITIES: HIGH
LOW	**Information-rich market networks** ▪ Main intermediary function is to share information among market actors (quality control system), but no market exchange ▪ Product specialization ▪ Direct sales as core site of interaction and value creation *Examples*: Bolivia, Kazakhstan, Namibia	**Diversified market networks** ▪ Multifunctional intermediary provides services that add value among market actors (some trading) but does not run consumer market ▪ Product specialization and innovation ▪ Traders as core site of interaction and value creation *Examples*: Uganda, Brazil, Colombia
HIGH	**Interactive market networks** ▪ Main intermediary function is to facilitate market exchange ▪ Product diversification ▪ Farmers' market as core site of interaction and value creation *Examples*: Ecuador, France, Mozambique	**Sociocultural market networks** ▪ Multifunctional (market, knowledge, education, services, etc.) intermediaries who own/run their own markets ▪ Product diversification ▪ On-farm shops as core site of interaction and value creation *Examples*: Benin, Chile, China

Source: authors' elaboration.

2013; Kilelu, Klerkx and Leeuwis, 2016; Klerkx and Leeuwis, 2009; Steyaert *et al.*, 2014), particularly because of the role that an intermediary actor plays in facilitating knowledge exchange and mobilizing collective action in the construction of markets (Callon, Millo and Muniesa, 2007).

Based on the analysis of the case study data and on the classifications already noted in the literature, we elaborated four types of nested market networks based on the role of the key intermediary. In other words, these types are differentiated according to the activities of the most influential core actor in constructing the network that supported the market[7] (Table 3.1). It is important to remember that all the initiatives in this study have a strong commitment to the communities in which they work and are building upon pre-existing social networks (see section on common business models in Chapter 2).

Information-rich market networks are characterized by a key intermediary whose role is mainly to share information among market actors, but not actively to organize the market. In these systems, the key intermediary is often the actor who is providing the guarantee and quality controls for the network (e.g. Tarija PGS in the Plurinational State of Bolivia, the Namibia Organic Association [NOA] PGS in Namibia and the Akmola Traditional Dairy Producers [ATDP] cooperative in Kazakhstan). There is a tendency towards specialization in a core set of products on the part of the farmers, who sell their products through a range of channels. Nevertheless, there is a predominance of direct sales in these initiatives where the intermediary is not necessarily involved.

Diversified market networks are those where a multifunctional intermediary provides services that add value to market exchanges and among the market actors, but does not run the consumer market. The key intermediaries in the three initiatives of this type are legally registered as traders, which allows them to sell products on behalf of relatively specialized producers. This group is representative of classic market intermediaries with the exception that they also provide a range of services such as agroecological production, development of new products, conducting research and including new consumers within the networks. It is at these sites of interaction where much of the value in these networks is created.

Interactive market networks have key intermediaries whose main role is to set up a physical market space where agroecological products can be exchanged. Although the intermediary may provide additional services, it is the convening of the market exchange that defines the initiative. This is the case of the Canasta Comunitaria Utopía in Ecuador, the Grabels market in France and the Maputo Earth Market in Mozambique. In

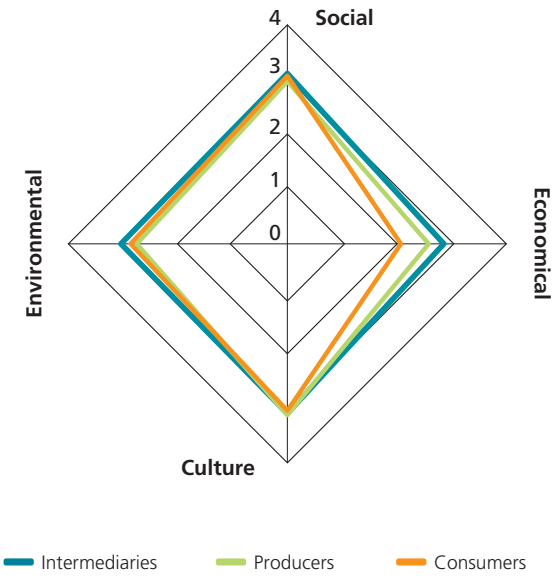
[7] We limit our typology only to the nature of market exchanges. An elaboration of how these nested markets contribute to a range of agroecological food systems (including relationships beyond the market) will require additional research.

order to be able to run a comprehensive market exchange, these intermediaries have encouraged product diversification both by producers and by including a range of more specialized producers within the network. The main site of interaction and value creation occurs within the actual farmers' markets.

Sociocultural market networks rely upon significant investment in multifunctional intermediaries who not only provide a range of services (environmental, sociocultural and economic) to both producers and consumers, but are also highly involved in hosting markets. For example, in China, we found that the intermediary (Shared Harvest) directly organized market exchanges, but also organized production, training services, a restaurant and educational and research programmes. This is similar to the activities of the Songhaï Centre in Benin (albeit on a larger scale), with the additional services of input supplies, processing and machine building. In Chile, these activities are highly linked to the revitalization of Mapuche cultural and food traditions. The main locus of exchange takes place on the farms and in their specialized shops, which serve as key sites of socialization and agroecological value creation between producers and consumers. Because of the importance of the farm as the main source of products, on-farm diversification is fundamental to these initiatives.

This typology is helpful for gaining a clearer understanding of the role of intermediaries in agroecological food systems, but we must underline that the types are ideal types. This means that the reality of how these nested market networks function is much more complex and is usually a hybridization of some or all of the different forms.

FIGURE 3.2
Average perception of sustainability across 12 cases (n=150)



Note: 0 = no, and this is not a priority for the initiative; 4 = yes, absolutely, and this is the main reason for my joining the initiative.
Source: authors' elaboration.

3.2 HOW DO PARTICIPANTS PERCEIVE THE FUTURE OF THESE INITIATIVES?

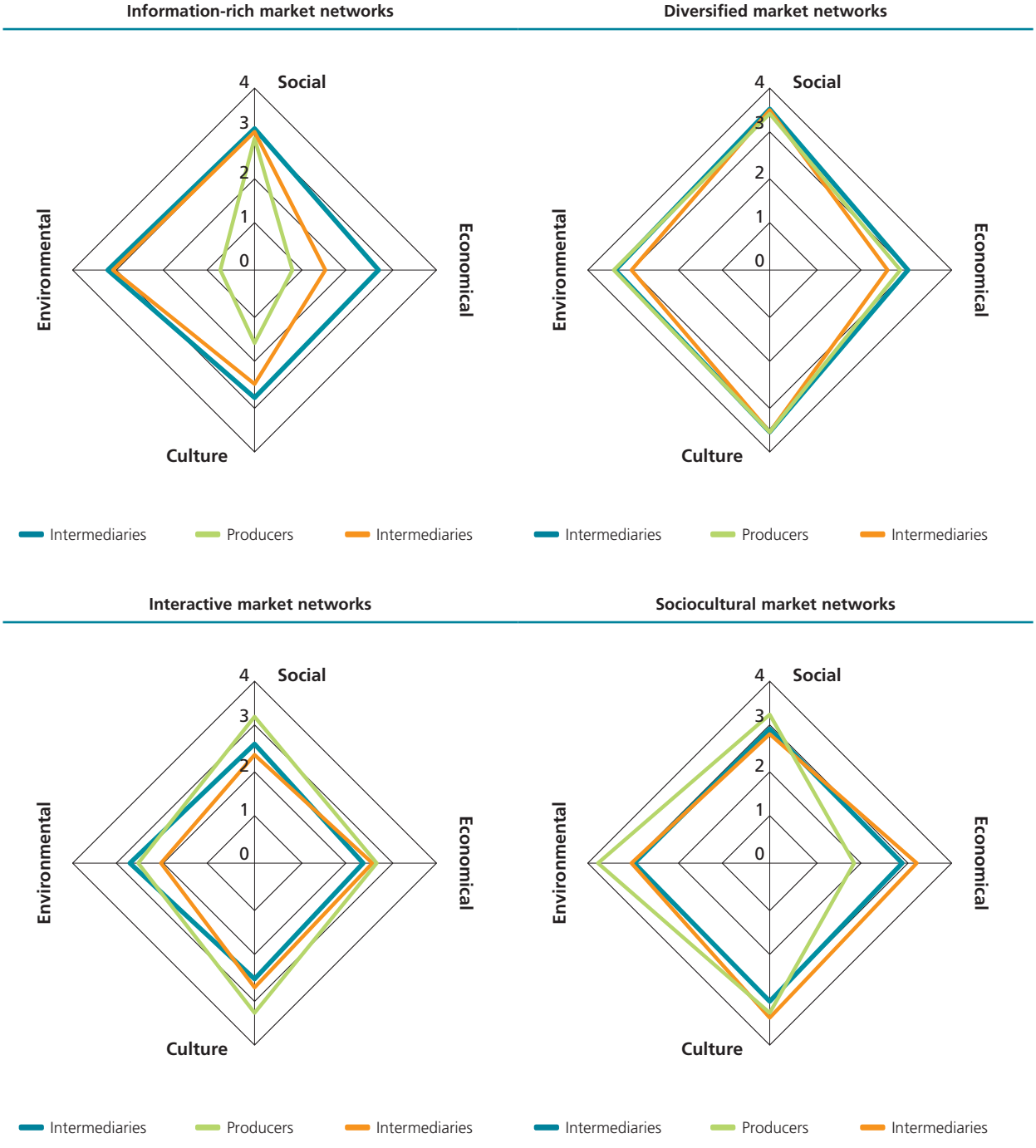
Constructing agroecological food systems is an ongoing process that has only just begun in a number of the initiatives studied. Nevertheless, we wanted to gain an understanding of how different actors perceived the future of their initiatives. The first approach was to gauge the sustainability of these networks by asking different actors a set of structured questions about how they perceive the sustainability of what they are doing. To do this, we adapted indicators from the self-assessment developed by the Social and Solidarity Economy Laboratory [*Labo de l'économie sociale et solidaire* (LABO ESS)] in order to understand the interviewees' views on the sustainability of their initiative. This approach is based on the idea that a sustainable food system is constructed on four principles.

1. Creation of social ties (trust, solidarity and reciprocity) and cooperation.
2. Equity in financial exchanges and efficiency in operations.
3. Participatory approach to decision-making.
4. "Learning-by-doing" logic where interactions between participants create greater common understanding and identity (LABO ESS, 2015).

Overall, we found that participants are fairly optimistic about the sustainability of their initiatives (Figure 3.2), with convergence between the perceptions of sustainability by each of the different actors on the criteria for environmental, social and cultural aspects of the markets, but with discrepancies about the economic sustainability of the initiatives. This is a particular concern for consumers and can be linked to what seems to be a consistent response that consumers are not as involved as other actors in the day-to-day running of the initiatives and are therefore less well informed about the financial autonomy of the initiative than those actors who are more involved.

For conceptual clarity, we examine the perceptions of sustainability according to the four different nested market typologies (Figure 3.3). The most consistently optimistic responses were found in the diversified market networks. In these cases, producers, consumers and intermediaries responded positively to the sustainability of their initiatives, often above the 3 mark, which suggests that some of the respondents had specifically joined the initiative in order to contribute to, or benefit from, an initiative that had a strong social, environmental, cultural and economic mission.

FIGURE 3.3
Perceptions of sustainability of different nested market networks



Note: Each question had a five closed response. These responses were scored on the Likert scale (0–4), with the most negative response earning 0 and the most positive 4.
Source: authors' elaboration.

Perceptions linked to the interactive and sociocultural markets are normally distributed, with the exception that consumers are the most optimistic about the environmental sustainability of sociocultural market networks. Given that the farm itself is the core space for interaction, this suggests that an important way to improve actors' understanding of the environmental aspects of agroecological food systems is through experiential learning. The least optimistic about the sustainability of their initiatives are those participating in information-rich markets. Consumers are by far the least optimistic about the environmental and economic aspects of their initiatives, which suggests that the key intermediaries in these initiatives could play a greater role in market exchanges either by providing more services or by becoming more active in market exchanges themselves.

3.3 HOW TO CHANGE THE SCALE OF THESE INITIATIVES?

There is a temporal aspect to sustainability, which means that a system must be able to last. One of the questions often asked is how an agroecological food system evolves over time. Another question relates to the type of support structures required in order to transition existing food systems towards agroecological food systems. These questions refer to the scaling up (or out) of agroecological food systems via horizontal or vertical expansion (Hermans *et al*., 2013; Callon, 1998). We gathered qualitative and descriptive quantitative information about the strategies used in each case study to reach different thresholds for producers and consumers.

In order to understand where these initiatives want to go in the future, it is important to understand where they are coming from. Each initiative is at a different stage of development and therefore has experienced different types of changes. In general, we can summarize these changes as an increase in the availability of agroecological products on the market, and the introduction of new and innovative products into local markets.

The greatest change reported by participants was an *increase in the availability of a diverse range of agroecological products on local markets.* This was explained as a result of increased production of these products as a response to increasing consumer demand. However, respondents noted that they see not only an increase in agroecological production capacity, but have also witnessed improvements in the quality of their products because of the adoption of new technologies by producers and processors. In Benin, for example, new reverse osmosis systems were purchased to improve the quality of bottled water, while in Chile a processing plant was constructed to make jam more consistent, and it will be able to handle greater quantities for processing quinoa. These improvements have been more important in scaling up the initiatives than a simple increase in production capacities.

Alongside increased availability, the initiatives have been working on *diversifying their production systems* with the objective of responding to a specific consumer demand for unobtainable products that have nutritive properties or could provide added culinary quality for gourmets. In some initiatives, this has included new kinds of products such as *chayote* in Uganda or *yacón* (*Smallanthus sonchifolius*) in Colombia, which are demanded by consumers because of their use as part of an antidiabetes dietary regime. Other initiatives have decided to transform their primary products into processed products such as flour, jam, syrup and bread, which have diversified the daily diet of members of the initiative.

TABLE 3.2
Scaling up or out, what does it take?

	Visibility/diffusion
Local, regional and national recognition	Benin, Bolivia, Chile, Ecuador, France, Mozambique, Uganda
Diversification of markets (finding new market outlets) and products	Colombia, Chile, France, Mozambique, Namibia
External support and policy recognition	Bolivia, Colombia, Mozambique
Increased consumer awareness	Chile, China, Kazakhstan
Certification	Brazil, Mozambique
Entrepreneurial development	China, France
Internal consolidation	Colombia, Chile

Source: authors' elaboration based on case analysis.

These *new and innovative products* are therefore often linked to processing activities and traditional products. In the Plurinational State of Bolivia, *charque*, a traditional llama meat jerky and *coime*, an amaranth nougat are being produced. In Colombia, several new products have been introduced into the local market: flour made from local cereals, a range of rare and indigenous beans, Andean potato crisps and *yacón* products (honey, syrup and jam). In Kazakhstan, women's cooperatives have been producing dairy products from local livestock breeds, such as fermented horse milk and goat cheeses. These product innovations have thus come from local inputs and indigenous varieties and the initiatives have found innovative ways to integrate them into consumers' diets. The result is a diversified catalogue of products, with which the initiatives have been able to diversify their marketing channels, resolve some post-harvesting conservation and storage problems and, in the end, save and promote local, Andean and indigenous products.

This approach to product diversification has required the participation of new producers within the production networks and new partnerships with restaurants, educational establishments and consumer groups. These relationships have formed the basis of the motivation we recorded of farmers who are willing to shoulder the risks related to the opening of new businesses. This is an interesting finding because it shows the possibilities for changing perceptions about agroecological foods. As seen in Figure 2.9, the quality most often requested from agroecological products is "freshness", but here the innovations are about processing. It will be important to follow the development of quality preferences as agroecological products become more processed in the future.

Despite these positive changes, the initiatives are facing four main challenges as they move forward. First, inconsistencies remain in maintaining the levels of production necessary to respond to rising consumer demand for agroecological products. The producers, intermediaries and consumer groups organizing the sales of agroecological products often do not have the capacity to deal with the local, diversified and fresh supply of products demanded in their markets. This challenge is directly linked to the second challenge concerning logistics. Producers, intermediaries and consumers are all facing logistical challenges. For example, producers and intermediaries have insufficient post-harvest infrastructure (e.g. storage and processing facilities) in their communities; unreliable marketing schedules; and insufficient physical space for selling agroecological products, which can lead to food waste. Producers and consumers often lack access to transportation that would allow them to participate more frequently in community events, fairs, festivals and farmers' markets.

The third challenge relates to the creation of consumer consciousness about the importance of agroecological food. The majority of initiatives stated that, although demand is increasing, the majority of consumers are not aware about, or not interested in, agroecological products. There is a persistent belief around the world that prices are high when compared with conventional food. The data presented in this study illustrate that in fact this is the exception rather than the rule. Many respondents noted that they have significant challenges in convincing others to purchase agroecological products even in their own families and households. The final challenge relates to public sector support for agroecology: in general, there is not enough funding, technical assistance or regulation of fraudulent labelling. Moreover, much of the public support to conventional commodity sectors and input subsidies creates unfair price competition in local markets, which has negative effects on producers' incomes.

In short, each case demonstrated different changes in its operations over time and there are clearly opportunities for changing the scale of operations in the future. The proposals can be summarized in two ways: first, through a scaling-up approach and second, what has been referred to in the literature as scaling out. *Scaling up* refers to changing the scale of influence of the initiative – often in terms of vertically expanding the reach of the core intermediary.

> *The case from Namibia, for example, proposes a model of mediated growth and diversification of markets. One producer claimed that producers "should not be focusing on Superspar [local supermarket], but focusing on the other markets (…) have to be careful that we don't grow (and follow the trend in the economic world) so that our quality and our human relations go down".*

Scaling out is a term that has been used more recently in farming systems research and refers to the horizontal expansion of a technology or idea, rather than a vertical expansion.

> *In Uganda, the scaling-up strategy is on growth in local clusters around the country that can then be connected through logistics systems. An intermediary explained: "Since we have four different geographic locations (…), through the steering committee of directors, we should support the clusters to grow to that tune (up to 800 members). (…) This structure represents replication of a business idea to other regions without compromising the autonomy of producers to own their operations".*

In general, the most common opportunity for changing scale is by increasing local, regional and national recognition of the initiatives. Increased visibility is helping to share these experiences beyond community borders. Diversification of markets, in terms of both new sales outlets and new products, is actively being pursued. The need for financial support is common to nearly all cases. There is an interest in specific certification schemes for agroecological products as a means to differentiate them (e.g. PGS for agroecology in the Plurinational State of Bolivia, Brazil, Chile and Colombia) but access to agroecological technologies and training in these practices are still needed. Political support through the recognition of agroecology and its existing markets is important for scaling up – particularly in Bolivia, Colombia and Mozambique. Finally, there is a need for internal commitments by members to continue their participation in the initiative, and local level collaboration between private and public actors is fundamental for changing the scale of these initiatives.

To sum up, we found that the scaling-out approach was more common than a strict scaling-up approach (which, in these cases, often has to do with seeking political recognition from national and international institutions, rather than creating economies of scale). There is a real question of size for these initiatives and all interviewees expressed concern about becoming too large and the subsequent effect on the values they are trying to promote within their initiatives. Therefore, the conditions of economic success for these types of initiatives are often found when they are able to link up with other similar initiatives to create horizontal networks within which the individual groups focus on their core communities, but trade knowledge and goods with other local groups so as to provide a greater variety of products and greater market access for consumers.

Chapter 4
Conclusions

According to the Codex Alimentarius Organic standard: "The concept of close contact between the consumer and the producer is a long established practice. Greater market demand, the increasing economic interests in production, and the increasing distance between producer and consumer has stimulated the introduction of external control and certification procedures" (Codex Alimentarius Commission, 2007). What we document here in terms of markets for agroecology are examples of initiatives where actors are recapturing value through direct contact, but also through a diversification of their market channels. They have done this by developing specific rules and networks that enabled producers to sell products to consumers who recognized them as agroecological. We find that these markets are dynamic and the actors are strategic in how they are positioning their products and how they are creating value for them in the market. Put differently, these cases illustrate that there are markets for agroecological products and that these markets exist both within the current institutional arrangements for organic agriculture and outside.

The following are the main lessons to be drawn from each of the 12 initiatives in this study.

- Effective coordination along the supply chain from research to consumption can create long-term markets for agroecological products. (Songhaï Centre, Benin)
- A publicly recognized PGS provides a trustworthy mechanism for public procurement, but prices paid in the public procurement scheme do not adequately value the agroecological quality of products. (Tarija PGS, Plurinational State of Bolivia)
- Financial autonomy of families within the collective and good market information enable strategic market access. (Sateré-Mawé Native Waraná Presidium, Brazil)
- Creating linkages between ethical consumers and agroecological producers can revitalize indigenous traditions. (Mapuche ethical label, Chile)
- Building trust between producers and consumers is important in reducing food safety concerns. (Shared Harvest Farm, China)
- Conscious consumption and production can be achieved through alliances among producers, consumers, restaurants and research. (Familia de la Tierra, Colombia)
- Creation of discussion spaces among producers, consumers and intermediaries enables production planning and price negotiation, even with wholesalers. (Canasta Comunitaria Utopía, Ecuador)
- A local participatory system to ensure the origin and quality of products in short chains can be more efficient than a top-down label because it favours learning and involvement by consumers, producers and intermediaries. (Grabels farm [Ici.C.Local], France)
- Locally organized events that offer free food and product education are a way to promote environmental friendly products and preserve traditional farming methods. (Akmola Traditional Dairy Producers, Kazakhstan)
- Creation of market channels where producers and customers are in direct contact promotes the local economy and urban and peri-urban family farmers. (Maputo Earth Market, Mozambique)
- A single PGS can work effectively in both large- and small-scale operations. (Namibian Organic Association, Namibia)
- Collective production planning and marketing through social networks builds trust in the system. (Freshveggies, Uganda)

Beyond these individual lessons, there are some core elements that are common to all initiatives. One of the key lessons learned was that locally defining the marketing terms that refer to "agroecology" are extremely important, not only to increase local applicability, but also to build a shared understanding that can be used to mobilize local actors in food systems transformation.

> *For example, during research in Namibia, there was significant discussion about the use of the term "organic" versus "agroecology" in the country. NOA explained that they had spent a significant amount of time ensuring that the concept of "organic" was recognized by the different actors in the system and did not want to create confusion by introducing a new term that currently carried no meaning.*

This sentiment was repeated in all the cases and is further evidenced by the significant investment brands and labels that tie each local interpretation of agroecology directly to the initative and to the community. At the same time, we find that the notion of an "agroecological product" does take a different form from that of "organic" as has been regulated in public and private standards and labelling systems. In most cases, actors find that these regulated forms enable cheating and less strict methods of production because of the politics involved in the creation of organic regulations and because of the third-party certification systems that have introduced standardized checklists of dos and don'ts (Gibbon, 2008; Fouilleux and Loconto, 2016). If a particular case used the word "agroecology" rather than organic or local or ecological or traditional – it was because they had already invested heavily in creating a locally recognized definition for "agroecology".

Therefore, we can conclude that there is evidence that there are markets for "agroecological products", but the term "agroecology" is not an evident quality attribute sought in markets. Personal contact and direct communication between consumers and producers (through social media, the Internet, personal communications, farm visits, etc.) are the principal media in creating value for agroecological quality. These markets are dynamic and actors are strategic in how they are positioning their products and creating value for them in their markets. All the initiatives have some form of informal or formal control over their agroecological production methods, with a predominance of farmer-led variations of participatory guarantee systems.

This "agroecological" product is traded in short food supply chains at fair prices. There is room here for further research linking this conclusion and the results related to the qualities that consumers seek in these markets (particularly the quality of freshness). This co-occurrence of short food supply chains and freshness poses the question of whether or not agroecology must always imply short chains, which typically lean towards freshness. Experience and research show that even the taste of a product depends on the length of the chain, since long-distance chains often harvest before maturity and there is a preference for conservation criteria rather than taste by the actors in these chains. It would be important to conduct specific research to examine whether agroecological products present the same qualities for consumers when they are sold through long chains.

The initiatives are judged as being mostly sustainable with respect to economic, environmental, cultural and social concerns. Consumers perceive the initiatives to be less sustainable economically than intermediaries and producers, while intermediaries are the most optimistic about the environmental sustainability of the initiatives. These initiatives are socially strong and enduring, but financial autonomy is not always a core focus of the market network (found in less than 50 percent of the cases). In other words, while financial autonomy is a goal for all initiatives, actors place a higher priority on social autonomy, community and cultural investments, and environmental synergies.

Of the four different types of markets we identified, the diversified market network was considered to be the most consistently sustainable according to all actors, while the sociocultural market network was the most sustainable according to producers and intermediaries. This suggests that there is an important role for a multifunctional intermediary in ensuring the sustainability of these types of nested markets. The more inclusive initiatives are building on existing social networks, but are also expanding – we found significant response rates related to the role of the initiative in creating a social space for collaboration among actors who traditionally do not socialize. This points to relative network stability for the majority of the cases. There is also significant potential for changing the scale of these initiatives, both in individual size and in their collective reach, based on a declared, but untapped consumer demand.

Gliessman (in FAO, 2015) argues that level four of a transition to a sustainable food system is the re-establishment of a more direct connection between those who grow the food and those who consume it. We see evidence of this emerging in 12 different countries. Specifically, we found evidence of an important role for consumers who are directly influencing the way products are marketed and a correspondingly increased responsibility being taken by producers to develop their own marketing strategies. The construction of nested market networks illustrates that products

are not the only goods being valued in these spaces, but cultural traditions, ideas, visions and knowledge are also being exchanged. Community embeddedness is a core element of these markets, which is reinforced by the valuing of direct contact, interpersonal trust and the proximity of actors within the networks.

This market-focused vision of agroecology complements the definitions of agroecology that are found in the literature. Overall, we see evidence that a socio-economic vision of agroecology is emerging in dynamic and diversified nested markets across a range of developing country contexts. These exploratory results point to a need to take the lessons learned from this research and develop broader surveys to collect systematic and comparable data across a variety of agroecological, socio-cultural, geopolitical and economic food systems.

Chapter 5
Recommendations

FAO member countries can support the construction of markets for agroecological products in the following ways.

- Conduct public awareness campaigns about the benefits of agroecology and of diversified diets for both producers and consumers.
- Enhance local authorities' capacity to design local policies that support agroecological markets through more direct connection between producers and consumers (particularly diversified market networks).
- Recognize that these types of markets are "work in progress" that require public and private collaboration and support – particularly during their infancy. This can be done by providing public facilities that can be used to host farmers' markets, fairs and festivals for agroecology.
- Support local inputs markets by removing subsidies for synthetic inputs, including agroecological and biological inputs in the subsidy schemes, and recognizing farmer-to-farmer exchanges of seeds and other inputs within national legislation.
- Recognize existing agroecological markets by facilitating the registration of agroecological farmers with trade and food safety authorities, according to standards that are appropriate to their size and production capacity.
- Identify agroecological farmers as an additional category within family farming registries.
- Encourage public procurement from agroecological producers by adapting procurement protocols to the local realities of agroecological production and ensure that prices reflect the value added of agroecological production (e.g. informal trading relations).
- Encourage farmers, together with intermediaries and consumers, to create price-setting committees so as to enable more transparent and fairer price determination.
- Recognize PGS as a valid means to certify organic, ecological and agroecological producers on local and domestic markets.
- Enable consumers to become organized and more active by introducing policies that promote consumer cooperatives and consumer involvement in multistakeholder platforms focused on building local and regional markets.
- Collaborate, using participatory approaches, in collecting data on existing markets for agroecology and sustainable agriculture in general so as to be able to measure better the importance of these markets for food and nutrition security.

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Annex 1
Methodology

DATA COLLECTION

The study used a case study method (Yin, 1984) in order to collect systematic evidence from multiple case studies. This approach permits a meta-analysis of the opportunities and challenges of creating agroecological food systems across a range of diverse cases. Such data enable the following research question to be asked: *What are the market practices that best fit agroecological production practices and how can they be scaled up*?

To answer this question, we investigated the relations between markets and agroecology by purposively selecting (Patton, 1990) six[8] of the agroecological case studies that had the most developed market data in a previous study (FAO, 2016a) and adding six[9] new case studies of "agroecological food systems" that are used to expand the diversity of situations (production systems, market practices, geographic distribution) and develop an understanding of the sustainability of these systems (based on cultural, economic, environmental and social elements)[10] (see Table A.1).

In 2015, the French National institute for Agricultural Research (INRA) developed the study methodology and a detailed questionnaire based on previous work and inputs from FAO and Slow Food. Key informant interviews with producers, consumers and intermediaries in each initiative were conducted by the authors, or by local enumerators who were familiar with the initiatives, using a structured questionnaire with closed- and open-ended responses. Focus groups (Morgan, 1997) were used to facilitate discussions among consumers and farmers. The INRA/FAO team collected data for six cases (Benin, the Plurinational State of Bolivia, Chile, Colombia, France and Namibia); Slow Food collected data for three cases (Brazil, Kazakhstan, Mozambique) and the INRA/FAO team collaborated closely with local consultants to collect data for the remaining three cases (China, Ecuador and Uganda). The INRA/FAO team trained all enumerators to administer the questionnaire and any discrepancies in interpretation were resolved through an iterative process of questionnaire testing via video conference.

Table A.2 summarizes the number of questionnaires that were administered in both individual interviews and in focus groups between May and September 2015. The average number of respondents per case was: 6.6 producers, 4.6 intermediaries and 7.3 consumers, resulting in a total of 221 respondents across the 12 case studies (78 percent completed questionnaires).

The average age of respondents was 46 and 64 percent were women. The average level of education was at university level and the average income level was middle income. On average, respondents claimed that agroecological products made up 54 percent of their diet. These demographic data show that our respondents are mostly middle class and many of the farmers interviewed can be considered as "back-to-the-land" farmers, which means that these producers have chosen to return to farming as an occupation after higher education.

ANALYTICAL FRAMEWORK

This study relied upon perception data to gather information on how different actors in the food systems are actively constructing these systems through identifying agroecological practices and assigning a value to the products of these practices. Recent advances in economic sociology (Beckert and Aspers, 2011; Bessy and Chauvin, 2013; Vatin, 2013; Antal, Hutter and Stark, 2015) enable us to understand these practices as being constituents of the market-making process. This valuation process can be defined as the ways in which value is both assessed (*évaluer*) and produced (*valoriser*) (Vatin, 2013) by a variety of actors as the goods produced agroecologically take form as "products" that

[8] The first six case studies are from Benin, the Plurinational State of Bolivia, Colombia, Ecuador, Uganda and Namibia.

[9] The last six case studies are from Brazil, Chile, France, Mozambique, China and Kazakhstan.

[10] A detailed factsheet for each case study can be found in Annex 2.

TABLE A.1
Purposive sampling criteria

Type	Region	Country/ initiative name	Crop/ product	Agroecology practice	Institutional innovation	Certification	Commercialization strategy
Former cases to be completed for market aspects	AFR	Benin Songhaï Centre	FFV, fish, rice, soy, meat	Integrated production system/ effective micro-organisms	Innovation platform	No	Closed-circuit value chain
	AFR	Uganda Freshveggies	FFV	Small gardens, raised beds, native varieties	PGS	Private label, no 3PC	Internet sales
	AFR	Namibia NOA PGS	FFV, dairy, beef	Holistic rangeland management	PGS	Private label, no 3PC	Long and short value chains
	LAC	Bolivia Tarija PGS	Quinoa, potatoes	Agricultura Ecológica (national standard)	PGS	Public label, no 3PC	Public procurement
	LAC	Colombia Familia de la Tierra	Beans, maize, coca	Intercropping	PGS	Private label, no 3PC	Consumer movement, alternative economy
	LAC	Ecuador Canasta Comunitaria Utopía	Tubers, FFV	Crop rotation, native plants	CSA	No	Box scheme
Slow Food cases	ASIA (central)	Kazakhstan (ATDP)	Livestock (dairy products)	Organic production, restoration of pastureland, green belt system	Presidium	No	Processed products, direct sales
	LAC	Brazil (Sateré-Mawé)	Guaraná	Traditional production system	Geographical indication	Organic, fair trade, PGS	Geographical indication, fair trade
	AFR	Mozambique (Maputo Earth Market)	Various, including from 1 000 gardens	Family farming	Earth market	No	Maputo farmers' market
Consumer-driven cases	LAC	Chile (Kom Kelluhayin)	Quinoa and others	Agroecology	Ethical label	Yes	Cooperative and consumer mobilization
	ASIA	China (Shared Harvest)	Vegetables	Organic	CSA	No	CSA model and consumer mobilization
	EU	France (Grabels market)	All products	Local	Consumer driven	Municipal label or organic	Consumer mobilization

Note: AFR = Africa; LAC = Latin America and the Caribbean; FFV = fresh fruit and vegetables; 3PC = third-party certification.
Source: authors' elaboration.

can be assigned a monetary (or use) value and exchanged. We follow this process to understand how agroecological produce becomes agroecological products and how the actors doing this work create "agroecological food systems".

We see the creation of markets through the following five entry points and collected data from key informants that respond to questions about each of these five aspects of a food system.

1. *Diversity of sustainable market channels/ practices (input and output markets).*[11] Market channels can refer both to how farmers source the inputs they need to grow sustainable food and how they then sell

[11] The terms in parentheses refer to the theoretical positioning of how these criteria will be evaluated.

TABLE A.2
Number of completed questionnaires

Country	Producers	Intermediaries	Consumers	Total	Percentage completed
Benin	5	9	4	18	50
Bolivia	10	5	7	22	50
Brazil	4	5	6	15	100
Chile	4	7	2	13	75
China	4	3	11	18	75
Colombia	5	3	15	23	74
Ecuador	15	4	15	34	(98/36)
France	3	5	6	14	100
Kazakhstan	2	2	5	9	60
Mozambique	4	1	0	5	80
Namibia	7	7	6	20	70
Uganda	16	4	10	30	(100/50)
Average number	6.6	4.6	7.3	18.4	
TOTAL QUESTIONNAIRES	**79**	**55**	**87**	**221**	**~78**

Source: authors' elaboration.

the excess food that they produce. These channels do not necessarily have to be "market" exchanges in the classic sense of exchanging goods for money, but can also refer to other provisioning systems such as sharing or gift economies. Therefore, we take a holistic notion of market channels to try to capture the diversity of value chains or practices that circulate within agroecological farming systems. Specifically, we solicited information about volumes and sales of products that pass through each channel. We asked about the prioritization of specific channels and the perceived benefits that each provide to consumers, intermediaries and producers. These data were descriptive and quantitative.

2. *Valorization (valuation) of products.* We ascertained how quality is determined and how price is calculated and negotiated among the different actors. We needed to understand how producers, consumers and intermediaries perceive the value of products and how they allocate a monetary measure (or not) to that value. We adopted a broad definition of quality to include organoleptic, credence (including social and cultural), and nutritional attributes of products. These aspects are not always captured in the price of a product and may be valued through alternative channels. Therefore, we gathered information about how quality and price are communicated between producers and consumers, which can take place in common spaces such as at monthly fairs, through advertising via the Internet or cell phones; captured by brand recognition or in a collective label; or by word of mouth through traders or other intermediaries. As a result, qualitative and price data were collected. Unfortunately, it was not possible to collect reliable price data for all products in every case. Therefore, we focused on understanding the perception of the fairness of prices that were received by producers and intermediaries, and paid by consumers and intermediaries.
3. *Business models (institutional arrangements).* We wanted to understand the organizational arrangements that are used to construct market arrangements. For example, are there geographic limitations (length of the value chain or localized in a traditional or agroecological area)? Are there specific conventions or contracts used to specify how actors can participate in these systems? What are the terms of these agreements and how is ownership shared among the different stake-

TABLE A.3
Descriptive statistics of interviewees

Country	Actor	Age	Female (%)	Education	Income	Diet (%)
Benin	P	43	0	Secondary	Middle	58
	I	35	66	University	Middle	41
	C	72	0	Masters	High	45
	Average	50	22	University	Middle	48
Bolivia	P	40	100	Primary	Low	71
	I	44	40	University	Middle	66
	C	45	71	Secondary	Middle	19
	Average	43	70	Secondary	Middle	52
Brazil	P	51	100	Vocational	Low	53
	I	39	100	>University	Middle	8
	C	50	67	>University	Middle	n.a.
	Average	47	89	University	Middle	31
Colombia	P	47	60	Secondary	Low	64
	I	40	33	University	Middle	40
	C		26	University	High	n.a.
	Average	44	40	University	Middle	52
Chile	P	58	50	Secondary	Low	85
	I	53	57	Secondary	Middle	71
	C	38	100	University	Middle	50
	Average	50	69	Secondary	Middle	69
China	P	55	25	Secondary	Middle-high	83
	I	30	67	University	Low	90
	C	39	100	>University	Middle	67
	Average	41	64	University	Middle	80
Ecuador	P	47	53	Primary	Low	n.a.
	I	50	50	Secondary	Middle	n.a.
	C	53	93	University	Middle	64
	Average	50	65	Secondary	Middle	64
France	P	40	67	Secondary	Low	15
	I	48	67	University	Middle-low	38
	C	49	83	Masters	Middle	46
	Average	46	72	University	Middle	33
Kazakhstan	P	51	50	>Secondary	Middle	n.a.
	I	42	50	>Secondary	Middle	30
	C	31	100	Secondary	Middle	63
	Average	41	67	Secondary	Middle	47

TABLE A.3
(continued)

Country	Actor	Age	Female (%)	Education	Income	Diet (%)
Mozambique	P	52	50	Secondary	Low-middle	42
	I	45	0	Masters	Middle	70
	C	n.a.	n.a.	n.a.	n.a.	n.a.
	Average	49	50	Secondary	Middle	56
Namibia	P	50	43	Secondary	Middle	48
	I	52	50	University	Middle	47
	C	43	100	>University	Middle	83
	Average	51	64	University	Middle	60
Uganda	P	47	81	Secondary	Low	52
	I	39	100	Masters	Middle	31
	C	39	100	University	Middle	28
	Average	42	94	University	Middle	37
Total averages		**46**	**64**	**University**	**Middle**	**54**

Note: P = producers; I = intermediaries; C = consumers.
Source: authors' elaboration.

holders (e.g. individual, family, employee, cooperative, collective, shareholder)? These data are descriptive and qualitative.

4. *Scaling up (network stability)*. There is a temporal aspect to sustainability, which means that a system must be able to prevail over time. One of the questions often asked is how an "agroecological food system" evolves over time. Another question relates to the kind of support structures needed in order to transition existing food systems towards agroecological food systems. These questions refer to the scaling up (or out) of agroecological food systems via horizontal or vertical expansion (Hermans *et al.*, 2013; Callon, 1998). We gathered qualitative and descriptive quantitative information about the strategies used in each case study to reach different thresholds of producers and consumers.
5. *Perception of sustainability*. As a way to understand the sustainability of agroecological food systems, we started with understanding how the actors involved in the initiative perceive the sustainability of what they are doing. Therefore, we adapted indicators from a range of sustainability assessments (including farm sustainability indicators [IDEA], Committee on Sustainability Assessment [COSA], Sustainability Assessment of Food and Agriculture [SAFA] systems), particularly the self-assessment developed by the Laboratory of Social and Solidarity Economy (LABO ESS). This approach is based on the idea that a sustainable food system is based on four principles: (i) the creation of social ties (trust, solidarity and reciprocity) and cooperation; (ii) equity in financial exchanges and efficiency in operations; (iii) a participatory approach to decision-making; and (iv) a "learning-by-doing" logic where interaction among participants creates greater common understanding and identity (LABO ESS, 2015). This portion of the questionnaire provided us with a self-evaluation of the sustainability of each initiative by its participants and serves as a way to create a discussion about the sustainability of the initiative.

ANALYTICAL TECHNIQUES

The data were analysed using a mix of quantitative and qualitative methods (Creswell, 1994). We produced descriptive and inferential statistics (using Excel and SPSS software) to analyse the closed-response questions to market channels, business models, prices and perceptions of sustainability. For open-ended responses, lexical analysis (using IRaMuTeQ software) was used for the analysis of similarity, co-occurrence of words and also to present the results in a visual form of word cloud (Reinert, 1983). The lexical analysis allowed us to

analyse the relationships between the words in the respondents' descriptions of agroecology, quality and strategies. This enabled us to identify key trends in how markets are forming for agroecological products. We triangulated these forms of data with actor-network maps for each initiative, based on the value chain actor categorization used in previous FAO work (FAO, 2014a; FAO, 2016a). This analytical method allowed us to create market typologies based on the role of intermediaries in facilitating flows of resources and values (finance, knowledge/information, commercial transactions, culture/values, control/surveillance, political authority) within each initiative.

STUDY LIMITATIONS

We acknowledge the limitations of this study, which begin with inconsistency in the use of the key term "agroecology" by all actors across the case studies. As explained in the main text, some cases consistently used the word organic; others used agroecology, but most used these terms interchangeably. A second limitation is that we used nine different enumerators to administer the survey. We accounted for this interpretation bias by conducting iterative training and restricting the analysis to two people who analysed the data together. Since the key informants were selected by the initiatives, there is a sampling bias towards highly active players in each initiative. Moreover, given the low number of interviews conducted per case study (average 17.7), the results are not generalizable.

There are additional limitations related to the lexical analysis (Reinert, 1983), which uses co-occurrences of words to examine network relationships. We used lemmatization of words to identify the root and other grammatical forms of terms. Because the analysis was conducted on the open-ended responses from interviewees, we had to correct the database for spelling errors, but we did not always correct for grammatical errors. This should not have an effect on the validity of these data. Finally, there is a normative bias in our data on the perception of sustainability, as the coding method of analysis favours social and solidarity economies (LABO ESS, 2015).

Like all studies, the results are only as reliable as the empirical material collected. Therefore, any wide- scale generalization of the data included in this study should be avoided. However, qualitative data collection can provide data that may be analysed using descriptive and inferential statistics as well as qualitative analysis of processes, perceptions and justifications. These techniques therefore do provide reliable information about the construction of markets and indicate key themes and lessons that could be tested further in future generalizable studies.

Annex 2

Case studies

The Songhaï Centre[1], Porto-Novo, Benin

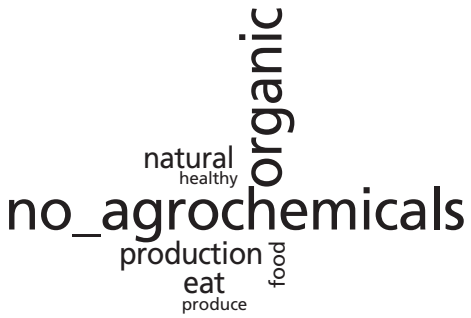
INTRODUCING THE INITIATIVE

With more than 30 years of experience, the Songhaï Centre is a well-established regional training, production, processing, research and development centre for sustainable agriculture that takes a holistic approach in linking producers and consumers to local and national markets.[2] The Songhaï integrated production model strengthens the sustainability of agricultural production by incorporating three key sectors of the economy into one organizational model: primary production, including crop production, livestock farming and aquaculture; secondary production involving agro-industrial processing, plastic recycling and bottle production; and tertiary production including services such as training and education, communications, marketing, hospitality and tourism. Through this scheme of synergies and complementarities, three product categories can be found in local markets. These are organic inputs such as seeds, organic fertilizers, fish and livestock fodder; fresh products such as fruit, vegetables, meat and eggs; and processed labelled products such as purified water, syrups, oils, cakes, juices and yoghurt.

The Songhaï Centre integrates five regional centres – Kétou and Kinwédji (30 ha); Savalou (214 ha); Parakou (250 ha); and Zagnanado – into a close-knit network that is run from the main location in Porto-Novo. The system integrates sustainable production and processing with a training centre for young people based on promoting value, knowledge and expertise. Since its inception, agricultural entrepreneurs have learned the technical, ethical and functional skills necessary to create, promote and manage sustainable agriculture in their local communities.

Key facts

Country: Benin
Region: Porto-Novo, Savalou, Parakou, Kinwédji, Kétou, Zagnanado
Year initiative created: 1985
Producers: 7 satellite farms (about 100 employees), 1 700 active student farmers (of 230 model farms)
Consumers: US$6.7 million in sales in 2014, 6 398 students trained since 1985
Different types of actors in the initiative: 6 (producers, consumers, processors, retailers, hotels/restaurants, input suppliers)
Number of links in supply chain: 1.7
Core products: seeds, fruit and vegetables, meat (poultry, rabbits, pigs, cows), processed products (syrups, dairy products, palm oil, cakes, soap, juices and fruit concentrates), recycled plastic bottles
Geographic market size: local, regional, national (Cotonou, Porto-Novo, Savalou, Parakou, Kinwédji, Kétou, Zagnanado, Lokossa) and international (Nigeria, Togo, Ghana, Côte d'Ivoire, Liberia, Sierra Leone, the Congo and the United Republic of Tanzania)
Number of market channels: 9
Type of market system: sociocultural market network
Definition of agro-ecology:



Challenge for market access: inconsistences in production and challenges in product placement
Main lesson: effective coordination along the value chain from research to consumption can create long-term markets for agro-ecological products
Opportunity for scaling up: regional recognition for excellent quality provides opportunities to franchise the Songhaï brand

[1] This factsheet was written by Alejandra Jimenez and Allison Loconto, based on data collected by Allison Loconto in 2015. A total of 18 interviews were carried out, with five producers, nine intermediaries, and four consumers.
[2] http://www.songhai.org

The initiative began with the idea of transitioning the current agricultural systems towards sustainability. To achieve this, the Songhaï model focuses on improving the fertility of soils and promoting the conservation of water and other natural resources, and biodiversity. The model is able to generate healthy agricultural products of high quality without chemicals and additives at a low price, guaranteeing accessibility and well-being to the local Beninese communities. In its 30 years of operation, the Songhaï Centre has benefited about 152 000 people across Benin and has created a network of over 200 partners around the world, through which it maintains international and multidimensional relationships.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

In Benin, the Songhaï Centre's holistic model promotes the integration of the primary, agro-industrial and services sectors into sustainable practices in order to generate autonomous agro-ecological systems. By integrating crop production, livestock farming and fish farming, the model generates synergies and complementarities in all links, ensuring not only waste reduction but also the organic quality of products, based on the sole use of organic inputs such as compost, manure and organic pesticides and the respect and conservation of natural resources in agricultural practices (Table 1). The producers in the centre's network define agro-ecological agriculture mainly as: "agriculture naturally made, practised without agro-chemicals, using organic inputs like organic seeds, biofertilizers and effective organisms, reducing waste and generating fresh and processed food with better physical and nutritional properties".

TABLE 1
Songhaï Centre best practices

Effective integration synergies: crop, stock and fish production and farming
Autonomy of farms
Self-production of inputs
Zero waste
Reuse of waste products of a given sector by another sector
No use of agrochemical inputs
Use of organic inputs
Development of processing workshops
Promotion of production on farm
Promotion of marketing services
Creation of trust among customers
Annual practical training for young agricultural entrepreneurs

Source: authors' elaboration, based on interviews

Agro-ecological practices and values are promoted principally through the educational system for young rural entrepreneurs and future leaders, who are encouraged to appropriate the practices and to replicate them on their own farms once they leave the programme. While the main objective of the hub and spoke model of the network is to ensure the quality of life of the communities in the farming areas around the centres, the Porto-Novo centre serves as a demonstration site for encouraging replication of the Songhaï model. Each year, around 20 000 visitors from Benin and other countries visit the Porto-Novo site in order to participate in seminars and demonstrations.

Another way to promote Songhaï's agro-ecological quality is by labels. All Songhaï products are labelled. The labels give consumers information about the product – its name, ingredients used, nutritional value, expiry date and Songhaï Centre contact details.

IS THERE AN ENABLING ENVIRONMENT?

In Benin, the sustainability of agriculture is promoted in various legislative and policy documents. Different private and public regulations, programmes and initiatives make reference to the integration of sustainability concerns into agricultural development through sustainable, organic or ecological practices. This regulatory environment provides support for the emergence of healthy products in the community.

- Law 98-030 of 12 February 1999, the framework law for the environment in Benin, defining the foundations of environment policies.
- Strategic Plan for Agricultural Sector Recovery (PSRSA), supported by the Government, encouraging sustainable and environmentally friendly agriculture. The plan promotes the use of specific fertilizers and organic inputs for soil fertility management and the use of sustainable agricultural equipment and methods.
- The Ecological Organic Agriculture (EOA) networks (private, public and Non-governmental Organizations [NGOs]), which encourage ecological and organic agriculture in Benin through training, extension and support activities to farmers as well as the promotion of ecological and local consumption

> "The Songhaï innovation combines business and research approaches using the concept of a 'green rural town'… to provide solutions to numerous agricultural difficulties."
>
> *Agossou* et al., *2016.*

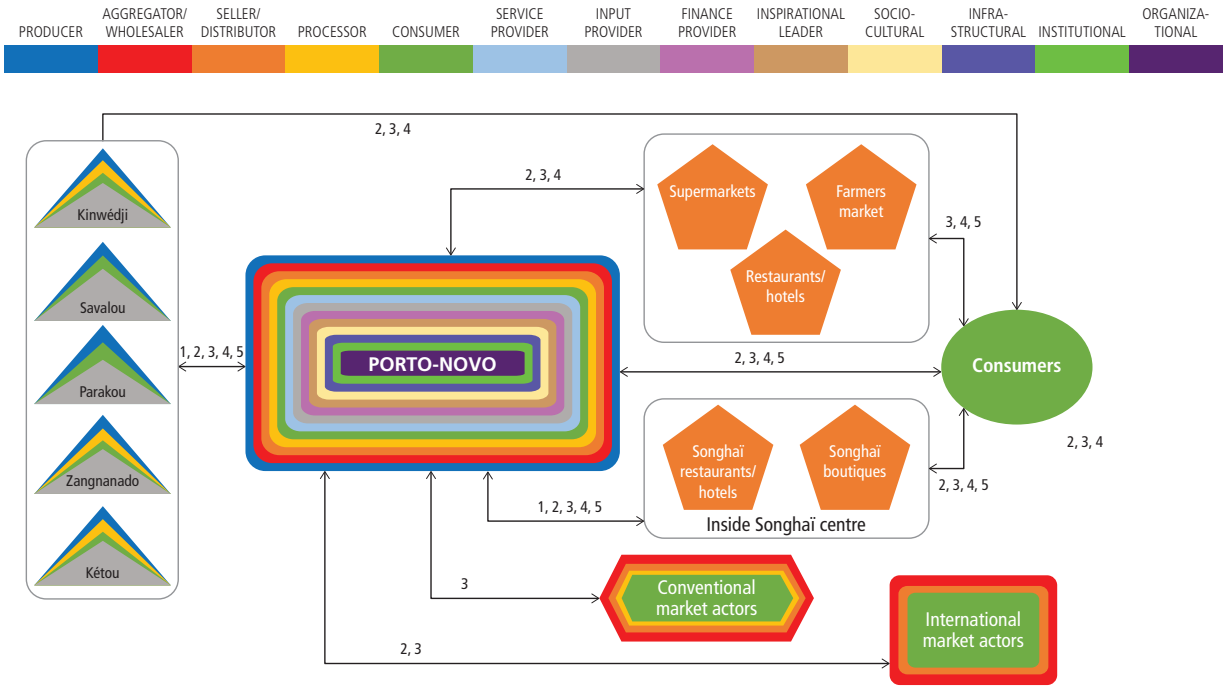
among customers. These organizations are, for example, the non-profit Organization for the Promotion of Organic Agriculture in Benin (OBEPAB), the Songhaï Centre, the Sustainable Agriculture Development Network (REDAD), the *Centre international d'expérimentation et de valorisation des ressources africaines* (CIEVRA), and other national and international networks. These networks have opened up new market opportunities for agro-ecological products at local, national and international level – particularly for cotton, pineapples and horticultural products.

- The United Nations Development Programme (UNDP) is sponsoring the Agricultural Entrepreneurship Promotion Project (PPEA) managed by the Songhaï Centre for the Beninese Government. Supported in particular by the Ministry of Agriculture, the Ministry of Foreign Affairs and other entities, this project is expanding its scope to reach more young agricultural entrepreneurs. In December 2015, 361 trainees (including 80 women) were recruited to participate in a three-month training programme. Training takes place at the four Songhaï centres and in the Songhaï Agricultural Entrepreneurship Promotion Centres (CPEAS) in Kétou and Zangnanado.
- Several organic agriculture initiatives, entities and networks engage research, non-profit and public actors in promoting sustainable agriculture in the country.

HOW IS BUSINESS CARRIED OUT?

The Songhaï integrated model was founded by Father Godfrey Nzamujo in 1985. The Centre is governed by a Director and a Board of Directors, a hierarchic structure that includes managers for each operational sector: finance, marketing, production, administration, technology and food services and procurement, who supervise strategic planning and operations. Each satellite site has line

FIGURE 1
Songhaï actors' map



Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Source: authors' elaboration, based on interviews.

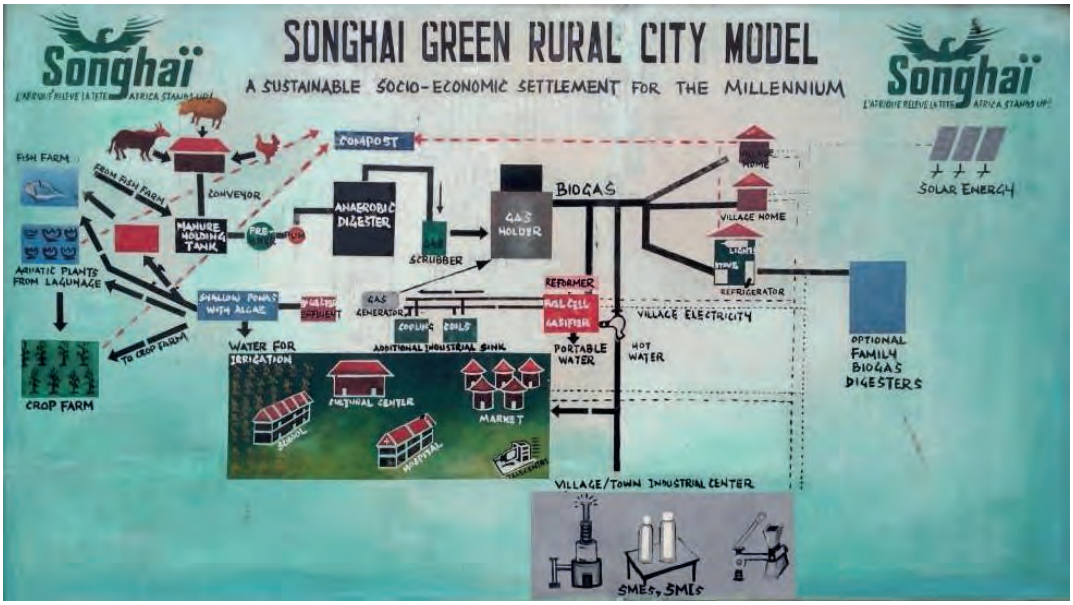
responsibilities towards both the site director and the sector directors. There is intense communication and collaboration between the satellite sites and the Porto-Novo hub in order to coordinate the training and trading systems within the organization (Figure 1). Songhaï also operates an outgrower scheme with ex-students, who receive inputs from Songhaï and sell back their produce to all the regional sites (particularly Porto-Novo) in order to increase the supply of raw materials for processed products.

The central administration in Porto-Novo manages all aspects of the initiative: it receives the products (as a storage site) and distributes them to other sites and market channels; it also pays expenses, retains traceability of products, pays suppliers and carries out other administrative activities. The Porto-Novo site and the other sites employ permanent and seasonal staff (recruited from Songhaï and outside organizations) – most are students and interns. The Porto-Novo site employs permanent staff in production and processing. There are about three employees in the production of plastic; 12 in the processing of drinks, crisps and snacks; three in fish feed processing; and nine in the storage department (four stockkeepers and five account keepers).

The Songhaï business model has the following characteristics.

1. ***Community embeddedness***. The Songhaï Centre's products and services are particularly directed at the Beninese community living around each of the regional centres but, with its expansion, other communities and countries have benefited from its products and services. The original motivation for creating the Songhaï Centre was to respond to community problems such as youth unemployment and young people's lack of interest in agriculture. All Beninese nationals can attend the training centre for free and the food products developed are created with the Beninese consumer in mind – both in terms of affordable prices and in terms of the preferred varieties and tastes of consumers.
2. ***Financial autonomy***. The centre itself has achieved financial autonomy after many years of receiving donor funding. This autonomy comes from cost-saving techniques and on-farm production of inputs such as effective micro-organisms, biofertilizers and biogas; the payment of training fees by foreign students and professional organizations; franchise fees from the Songhaï Centres in Nigeria; and sales of a wide range of marketable products and services (restaurant, Internet services,

FIGURE 2
Songhaï model



Source: A. Loconto, 2015

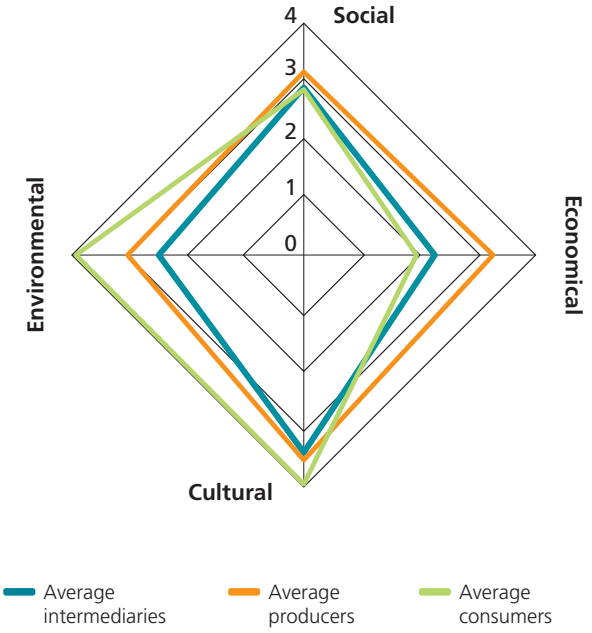
etc.). The centre still receives donor funds for strategic investment in technology upgrading and expansion of its services.

3. ***Interdependence***. The agricultural practices promoted by Songhaï are designed to foster interdependence among farming systems. This is achieved through on-farm integration of crop, livestock and fish farming, and through the interregional supply systems, but is also replicated beyond the regional sites. Ex-students are encouraged to create supply relations among themselves that enable them to specialize in one or a few production systems and exchange products and inputs horizontally. For example, a farmer specialized in livestock production trades manure with a neighbour for grain or vegetables that can be used for animal fodder.
4. ***An internal receipt system, not written contracts***. This system is used by the Songhaï Centre for planning orders with producers for what is required and when. There are no written contracts since oral agreements suffice. The centre controls the quantity, quality and prices of products directly, which are defined with producers either at the beginning of the season when inputs are included in the agreement or at the point of sale.
5. ***Applied learning***. Training is one of the key missions of the Songhaï Centre. The youth training programme focuses on learning by doing – with part of the curriculum focused on the "theories" behind sustainable agriculture (25 percent) and the major part of the curriculum taught through applied training and work in the three different sectors of the Songhaï production system (75 percent). The students provide most of the labour for Songhaï's production systems. Through the Songhaï Leadership Academy (SLA), the Songhaï Centre is beginning to train young people who have potential to take on leadership roles within the organization (managers, etc.) and in external agribusinesses.
6. ***Appropriate technology***. Appropriate technology is one of the foundations of the Songhaï Centre. In its production and processing practices, the centre focuses its activities on the constant development of technological platforms for the management of ecological inputs and products. The centre has a "Fab Lab" in Porto-Novo where it builds low-cost technologies that are adapted to Beninese agro-ecological and socio-economic conditions and recycles plastic to produce the bottles and buckets used in the processing plants. It adapts new plant varieties to the different agro-ecological production zones. Soil fertilization, small-scale machines and biogas production are developed in all the centres.
7. ***Internal quality control system***. One of the responsibilities of the Songhaï Centre is to ensure good-quality products and services. The centre controls the quality of its processed products by testing nutritional composition and residues for organic quality. This system enables Songhaï to claim with confidence that its products are safe and organic.
8. ***Inclusivity***. The Songhaï model promotes the participation of all actors in agro-ecological production, training and marketing. Songhaï specifically includes rural youth, small farmers, market actors and government. It is an inclusive organization and is open to training and hosting anyone who wants to come and participate in achieving the Songhaï vision.
9. ***Strong cultural and social sustainability.*** The cultural and environmental performance of the Songhaï Centre is perceived by consumers to be strong, while producers and intermediaries are less positive (Figure 3). This perception can be tied to the active participation of the community in Songhaï's training processes and the participation of actors in the expansion of its vision. Consumers and intermediaries ranked economic sustainability the lowest, which may be a result of their relatively lower participation in decision-making and finance of the initiative, and in price setting.

Students making cheese in Parakou

Source: A. Loconto, 2015.

FIGURE 3
Perception of sustainability (n=11)



Source: authors' elaboration, based on interviews.

Seed posters in Savalou

Source: A. Loconto, 2015.

HOW ARE MARKETS CREATED?

The Songhaï Centre developed its network around creating markets for inputs between its regional centres and farmers, and markets for its fresh and processed products.

Where do production inputs come from?

The organic input market is little developed in Benin. The agriculture sector is characterized by scarce use of mechanization, the use of small farming tools, few phytosanitary products and the use of organic fertilizers and other inputs (combined with chemicals) for crop cultivation and livestock. Because of the synergies promoted through its integrated model, the Songhaï Centre produces about 90 percent of the inputs necessary for production. This supply, which is free for producers, is centralized at the Porto-Novo site. Farmers have found in the Songhaï scheme an important source of inputs such as seeds, effective micro-organisms, compost, pasture, fish seed and feed. Producers also produce their own inputs, including seeds, fertilizers (compost and manure), fodder, animal feed, water and biogas. The production system promoted by Songhaï is based on the principles of "low-input agriculture", whereby the farmers' production of inputs, which are used sparingly, reduces costs and enables farmers to sell their products at competitive prices in the markets.

Accessing inputs through the Songhaï system gives producers various benefits, including access to products that they cannot produce, credit, high-quality inputs (Songhaï quality), effective seeds (high germination level: 90 percent), trust and certainty about the organic origin of inputs, waste reduction and interactions that provide feedback about quality. The organic inputs and zero waste schemes of the Songhaï Centre model require synergies and complementarities among the regional sites and with outgrowers. The input supply programme of the centre is complemented by the farmers' own production of inputs. This is considered by producers as a good way to reduce costs, to be sure about the origin of products and processes, and reduce domestic waste, which brings profitability to their operations.

Where do products go?

The products and services of the Songhaï Centre are mainly focused on supplying local market demand and contributing to the food security of the communities living near the different regional sites. Therefore, the principal market channels are located principally in Porto-Novo, Cotonou, Parakou, Savalou and Lokossa. When the local markets

TABLE 2
Where can Songhaï products be found?

Market channel	
Traders	14% conventional
Wholesalers	
On farm	86% agro-ecological
Direct sales in Songhaï Centre shops	
Supermarkets	
Office deliveries	
Open-air markets	
Speciality shops	
Restaurants/hotels	
Own consumption	

Source: authors' elaboration, based on interviews.

in Benin have been supplied, (processed) products are sold at other markets in Africa. Consequently, Songhaï products can be found in Nigeria, Togo, Ghana, Côte d'Ivoire, Liberia, Sierra Leone, the Congo and the United Republic of Tanzania. Nigeria has been an important player in the marketing and expansion of Songhaï processed products as it represents the most important external market.

The Songhaï producers interviewed allocated about 86 percent of their production to agro-ecological markets (including own consumption) and about 14 percent to conventional market channels (Table 2). The Songhaï Centre uses part of its fresh production for internal services such as catering and restaurants for interns and staff. The part of production traded is sold mainly to local markets through direct sales since the centre does not work with intermediaries. Each location has a shop on site where mainly fresh fruit and vegetables are sold directly to consumers. Products such as eggs, mangoes, pineapples and meat are sold to hotels and other private distributors. Deliveries to sales points, supermarkets, restaurants and wholesalers as well as on-farm sales and office deliveries are important market channels for providing consumers with Songhaï products. The initial strategy of supplying only the local Beninese markets has scaled up with a far-reaching marketing plan to bring Songhaï-labelled products to diverse markets in other cities and countries (such as the sales of Songhaï-labelled products in Nigeria).

The Songhaï shops provide benefits such as availability for local consumers and accessibility for the regions around the centres. They are also a way of promoting the Songhaï vision: visibility; healthy, natural and fresh products; affordable prices; and direct contact and good communication with producers. Hotels and restaurants provide benefits to consumers in the form of certainty about organic quality, visibility of the initiative (encouraging people to buy more Songhaï products), affordable prices and local and diversified menus. Wholesalers sell Songhaï products at fair prices, and there is good communication and good promotion of products. Producers can also sell products in bulk, which is convenient when they have large quantities of produce.

Songhaï shop in Cotonou

Source: A. Loconto, 2015.

What marketing strategies are used?

The Songhaï Centre has different marketing strategies to promote agro-ecological products.

- Visits to the centre to see the Songhaï vision in action. During these visits, consumers, partners, trainees and students can taste and buy agro-ecological products at the shops. They represent 60 percent of sales.
- Product demonstrations and tasting sessions outside the centre, conducted by the Songhaï Centre marketing team, in order to capture consumer attention and explain the agro-ecological production practices involved in production and processing.
- Labelling is an important strategy to facilitate marketing; all processed products are labelled, giving consumers information about the product and the Songhaï Centre itself.
- Publication of all information about Songhaï in both English and French as a strategy for reaching a wide range of customers.

- An official Web page that includes explanations about Songhaï's origin, vision, mission, strategies, youth entrepreneurial programme, contacts, etc.
- Inclusion of new products and services promoting the innovation and development of student and worker capacities as well as introducing products that may change local diets in favour of healthy, organic products.
- Short surveys and testing of new ideas and products on staff and loyal customers. Through innovation, Songhaï includes different products in its catalogue, adapting to consumer demand.

Challenges or opportunities for market access?

Problems with the availability of some products for deliveries are the principal challenge. Both consumers and intermediaries mentioned a lack of regularity in deliveries and the absence of certain products in the markets, linked principally to a lack of internal production planning and to seasonality. The irregularity of products in markets is accompanied by other delivery problems such as discrepancies between what is ordered and what is delivered; deliveries of products that local people do not want to eat; demand for products that the centre does not produce; low stock in warehouses; and little reliability in delivery by producers.

Producers explained that the shortages and problems related to delivery schedules resulted from factors such as the lack of reliable transport to take products to markets (the centre has only one truck). Use of other transport such as taxis is too expensive. A lack of inputs for annual crops, inadequate funding and poor roads also create difficulties in deliveries.

Songhaï shop in Cotonou

Source: A. Loconto, 2016.

HOW IS VALUE CREATED?

What are the characteristics that give value?

Organic and physical characteristics were most requested for agro-ecological products by intermediaries and consumers. Intermediaries indicated that Songhaï organic quality is recognized by consumers, helped by labelling. "Freshness" was, however, the most requested (Figure 4). Eggs are consumers' preferred Songhaï product – they look for freshness and good internal quality such as yolk colour (not too dark) and consistency (firm not runny). Consumers generally seek fresh products daily such as vegetables, fruit, eggs and meat in order to satisfy regional culinary preferences.

Consumers are also concerned about the texture of processed products. They should have a good humidity level, good consistency and concentration without being overprocessed (particularly in the case of juices, cassava and tomatoes where a good balance between pulp and water is sought). Packaging and physical appearance are important. For example, consumers prefer juices in glass bottles rather than in plastic ones (especially in shops, since this is what standards require) and with easy-to-open caps. Soap should be hygienically packaged and be of a regular shape.

Creating shared value?

Quality is mainly communicated verbally through personal contact (Figure 5). When customers are not aware of the quality and the agro-ecological practices used in production, Songhaï members explain, during on-farm visits, product sales and exchanges (in general at every opportunity that producers or members are in contact with customers), how the product is produced and the benefits of its consumption. Visits to the centre's farms are the second most important way of communicating quality, where customers can see for themselves the way in which Songhaï products are produced and processed and learn about Songhaï's vision for agro-ecology (organic). These close relationships between the centre and its customers create social opportunities for discussion, explanation and negotiation about quality; then, for example, should quality expectations not be met, Songhaï will replace the product. The marketing team has the most important role to play in communication

FIGURE 4
Characteristics of agro-ecological products

Source: authors' elaboration.

FIGURE 5
How is quality communicated?

Source: authors' elaboration.

between consumers and producers; good communication is also promoted through staff training.

The Songhaï label (Figure 6) is another way to promote agro-ecological quality. All Songhaï products carry labels on the packaging. The label gives information as to the name of the product, ingredients used, nutritional value, expiry date and Songhaï Centre contact details. Songhaï training, tasting of new products, customer appreciation surveys, social networks, press and posters, events, phone calls, e-mails and invoices are also used as feedback mechanisms by the Songhaï Centre to communicate and transmit product quality.

The Songhaï Centre pricing system is based on a calculation of production costs. Market prices are then shaped by adding a margin based on a percentage of the production cost or the supplier price. The centre keeps about a 10 percent margin that enables it to be competitive in markets. Prices depend on the region and the local market, since transportation costs can increase prices. Direct contact, e-mail and phone calls are the principal ways to communicate product prices. These prices can be negotiated with consumers, but consumers are not often involved in price negotiations and accept the prices charged by producers and intermediaries mainly because they find them to

FIGURE 6
Songhaï Centre label

Source: http://www.songhai.org

TABLE 3
How fair are prices in market channels?

	On-farm shops	Direct sales	Wholesale markets	Hotels/ restaurants	Internal exchanges
Mean*	3.4	4.0	4.00	4.00	4.00
N	6	4	4	4	2
Standard deviation	0.408	0.000	0.000	0.957	0.000

* 1 = very unfair; 2 = unfair; 3 = neither fair nor unfair; 4 = fair; 5 = very fair.
Source: authors' elaboration, based on interviews.

be fair and convenient, and they trust in the work of the centre. All producers (five out of five) found prices to be fair in most market channels. On-farm sales, direct sales in Songhaï shops, wholesale markets, hotels and restaurants, and internal exchange are considered the market channels that offer the fairest prices (Table 3).

SCALING UP, WHERE TO NEXT?

Important changes have taken place at the Songhaï Centre since its foundation in 1985.

1. ***New technologies***. The Songhaï Centre has introduced new agricultural technologies to improve production. Sustainable technologies and techniques are developed through its technology platform. With the technological park in Porto-Novo, the centre has been able to create and promote authentic, appropriate and innovative technologies for the development of sustainable agriculture. The technology platform has improved the access, management and protection of genetic inputs (animals and plants); soil management; mechanization; irrigation; agricultural production techniques; and the use of effective micro-organisms. All these technologies are focused on achieving a friendly, balanced relationship among human beings, agriculture and nature.
2. ***Industrial revolution***. Product quality improvements have been made in the transition from artisanal to industrial processing. New small factories for processed products such as purified water, juices and yoghurt have been built, and Songhaï's own production of plastic bottles from recycled plastic is a result of this "industrial revolution".
3. ***From local to regional markets***. Songhaï has consolidated its local market channels in Benin, satisfying local demand for sustainable products and improving the food security of the community living in the areas around the satellite sites. Songhaï's processed products are now entering foreign markets such as Nigeria, Togo and Ghana, and even as far afield as the Congo and the United Republic of Tanzania. This trade expansion is spreading Songhaï's vision throughout the continent.
4. ***Training programme***. The training approach adopted by the Songhaï Centre, based on values, knowledge and expertise was the first main focus of the initiative. Since its creation, the Songhaï Centre has trained about 7 500 young agro-entrepreneurs. Nevertheless, some members of the initiative feel that thoroughness in training has declined over the years and the curriculum needs to be revisited in order to strengthen youth entrepreneurial capacity. SLA is a new addition to the training programme, since it plans to promote young people who demonstrate leadership skills in order to train them to take on management positions.

These changes have strengthened and reinforced the initiative by giving it greater visibility at national and international level. Within the concept of an integrated "green rural town", there are a number of attempts to replicate the model both in and outside the country.

The Songhaï Centre wants to promote new agro-ecological products and services based on existing and future demand, in order to change and diversify the diets of the local community. As part of the project of scaling up, the centre is encouraging the design and development of innovative products such as carbonated water, basil soap, granulated soap, and more juices, as well as changing the design of its packaging, using recycled plastic to make bottles, and replacing the old paper labels with plastic labels from recycled plastic. There are plans to expand the centre's own production in quantity and variety by: (i) planting new fields (from 25 to 50 ha) with new crop varieties such as cucumbers and rice; (ii) introducing high-quality seed; (iii) developing a fast growing Songhaï tilapia fish (500 g in six months); and (iv) research and innovation in composting techniques. Another challenge is to improve the quality of the services offered. Songhaï wants to improve access to its training programme to include more of the population in Benin and in the subregion of West Africa; it will improve its technology services and industrial processing in order achieve higher-quality products, which will further spread the Songhaï vision. To achieve this, the Songhaï Centre needs the following types of support:

1. Financial resources (internal and external) to improve production and supply.
2. Human resources with well-defined standards, marketing spreadsheets and good leadership.
3. Support in the delivery of products, particularly capital investment in trucks and other logistics.
4. Investment in publicity and communication to spread the Songhaï vision.

Tarija PGS and School Feeding Programme[1], Tarija, Plurinational State of Bolivia

INTRODUCING THE INITIATIVE

The Plurinational State of Bolivia is one of the pioneering countries in Latin America to legitimize ecological production. With Law 3525, the Bolivian Government has prioritized ecological production of food and created and supported projects and development plans at national and regional level to consolidate ecological production throughout the country, in response to the demand of farmers and small producers. In this context, Tarija is of national significance in the development of organic production systems: two of its municipalities, Padcaya and Uriondo, have been declared ecological municipalities and other municipalities such as San Lorenzo, El Puente and Yunchará are in the process of being declared ecological.

In Tarija, departmental and municipal committees for ecological production [*Comités Departamentales y Municipales de Producción Ecológica*] and technical units that support ecological production with a sustainable agrifood system approach were created through Law 3525. This institutional environment has been significant in accessing technical inputs and has created and implemented projects to improve agro-ecological production and consolidate the Participatory Guarantee System (PGS) and labelling as certification for ecological products. It has promoted ecological products by encouraging market channels such as direct sales principally at biofairs and in speciality shops, and public procurement for the School Feeding Programme (SFP).

SFP is framed in the Complementary School Feeding Programme (ACE) [*Alimentación Complementaria Escolar*] and its management is the responsibility of each municipality and its local and regional governments. This means that each

[1] This factsheet was written by Alejandra Jimenez and Allison Loconto, based on data collected in 2014 and in 2015. A total of 22 interviews were conducted, including interviews with ten producers, five intermediaries and seven consumers.

Key facts

Country: Plurinational State of Bolivia
Region: Tarija
Year initiative created: 2005
Producers: 51 in Tarija ecofair
Consumers: School Feeding Programme: 1 380 (Yunchará), 114 000 (Tarija)
Different types of actors in the initiative: 6 (producers, consumers, researchers, civil servants, processors, schools)
Number of links in supply chain: 1.8
Core products: vegetables, quinoa, amaranth nougat, broad bean cakes, milk, honey, api, tojorí, charque
Geographic market size: regional and local
Number of market channels: 10
Type of market system: information-rich market network
Definition of agro-ecology:

Challenge for market access: lack of information for intermediaries and consumers about agro-ecological products and production practices
Main lesson: a publicly recognized PGS provides a trustworthy mechanism for public procurement, but the prices paid in the public procurement scheme do not adequately value the agro-ecological quality of products
Opportunity for scaling up: external support for product diversification and greater visibility for agro-ecological products

> "We have been promoted as 'a municipality example' because of our approach to strengthen local production and to improve the food of our children with ecologic and healthy production … part of this production come from the hands of the same parents."
>
> *Gladys Alarcón, Mayor of Yunchará, 2016.*

municipality defines its ACE according to available resources, food availability, nutritional requirements, geographic location and other factors. This is the case in Yunchará municipality where 100 percent of schools have access to ACE. It provides breakfast and lunch for 38 schools and had more than 1 380 final beneficiaries in 2015. The local government has prioritized school feeding and the reduction of malnutrition – malnutrition in the municipality over the last few years has been reduced by 15 percent. The government has started to use local production: products come principally from local producers and processors, as one of the governmental policies is to support small producers and promote quality, freshness and accessibility.

The government has managed to improve children's food not only with dried and processed food but also with fresh fruit and vegetables. In 2015, 80 percent of schools were supported by ecological gardens that supply them with vegetables. Inputs were also given to about 30 families with children at school for the production of chickens and eggs, and for family gardens. Families in Yunchará are also helped to use and consume products: they are given menus and have technical assistance in nutritional aspects that help them to cook food better and use fruit and vegetables that are acceptable to students.

The principal local products in Yunchará are *api* (traditional Bolivian drink from the highlands (*altiplano*) based on ecological purple maize); *tojorí* (traditional *altiplano* drink made from maize); amaranth and broad bean cakes; and a chocolate and milk drink made from broad beans (*Nutrihaba*) (Yunchará is the only Bolivian municipality that processes broad beans into these kinds of product). Other products are quinoa, flour, *charque* (dry llama meat), honey, oil, sugar and rice.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

The ecological agricultural and forestry production system in Tarija is based on the principles and practices promoted by the PGS National Technical Standard. This establishes PGS as a certification system, an alternative to third party certification, locally adapted, economically viable and ecologically acceptable, which recognizes and guarantees the quality of ecological products, gives access to market channels and favours cultural traditions.

TABLE 1
Agro-ecological practices promoted by National Technical Standard

▪ No use of agrochemicals
▪ Agro-ecological management of soils, no irrigation with polluted waters and classification of soils by ecological zones
▪ Use of local varieties to prevent pests and diseases. Ecological management of pests (cultural and biological control)
▪ Biodiversity management. Conservation and respect for protected fauna and flora
▪ Sustainable harvesting and use of selected products
▪ Selection of crops, local varieties and adapted varieties. Management diversifies genetic resource and conservation of traditional seeds
▪ Use of compost and natural fertilization. Producers have to plan ecological management of soils
▪ No use of genetically modified organisms
▪ Animal protection. Sustainable management of animals for production and to close production cycle
▪ Respect for traditional and local knowledge
▪ Food sovereignty
▪ Gender equity
▪ Fairtrade

Source: PGS National Technical Standard, 2006.

The standard promotes ecological production, processing and consumption; consumption of local and national products; community consolidation; the protection and sustainable use of natural resources; genetic equity; strengthening of local economies; and inclusion and participation of families in markets where they can sell and exchange their products for a fair price and where their labour is appreciated. Some of the main agro-ecological practices promoted by the standard are shown in Table 1.

At regional level, local practices for the production and processing of certain products depend on the availability of resources and on traditional knowledge. For example, the *charque* production process in Yunchará municipality includes:

- adoption of technical best practices for *charque* processing by women farmers;
- preparation of abattoirs to sanitary standards;
- selection of healthy animals and animal respect in slaughter;

- conservation of traditional activities such as air-drying meat in the open for 12 to 20 hours;
- selecting dried meat according to quality – first quality: meat from the legs and arms, and second quality: meat from the neck, ribs and other parts;
- cutting the meat by hand in uniform pieces, salting it (10 percent of weight in salt) and leaving until the following day;
- placing meat in driers (four) – with a capacity of 140 kg (two llamas) – for three to four days;
- cleaning and selecting meat and packaging it in plastic sacks for sale at local and national markets.

FIGURE 1
Ecological labels

Source: CNAPE, 2015.

IS THERE AN ENABLING ENVIRONMENT?

A number of laws, initiatives and institutions are available in the country to provide support to ecological production and processes.

- The Plurinational State of Bolivia defines the objectives for integrated rural development through the new political Constitution (Title III, Articles 404 to 408). To guarantee food sovereignty, these objectives include:
  - prioritizing the production and consumption of Bolivian products;
  - promotion of the production, consumption and commercialization of agro-ecological products;
  - promotion and implementation of technical and ecological education at all levels and modalities;
  - promotion of irrigation;
  - creation of a seed bank.

The objectives are to guarantee agricultural and food safety through various policies and guarantee technical and technological support for agricultural production chains (Article 406).

- Since 1991, the Association for the Organizion of Agro-Ecological Producers of Bolivia (AOPEB) [*Asociación de Organizaciones de Productores Ecológicos de Bolivia*] has been promoting ecological production, supporting the development of sustainable and ecofriendly agriculture and promoting respect for indigenous knowledge. Constituted by 85 partners from ecological producers' organizations, ecosocial enterprises, Non-governmental Organizations (NGOs) and universities, the association supplies technical and business services for ecological production, transformation, agroforestry, training, certification, trade and marketing to producers, farmers and indigenous communities and producer associations in the country.
- Law 3525 of 2006, the Law on Regulation and Promotion of Agricultural Production and Non-Wood Ecological Forestry [*Ley de Regulación y Promoción de la Producción Agropecuaria y Forestal No Maderable Ecológica*] supports, promotes and diffuses ecological production in the country, and is established as the framework law in the development of ecological agriculture.
- In accordance and in concomitance with Law 3525, Municipal Committees for Ecological Production (CMPEs) [*Comités Municipales de Producción Ecológica*] and Departmental Committees for Ecological Production (CDPEs) [*Comités Departamentales de Producción Ecológica*] were created. These institutions are key actors in establishing public recognition of ecological agriculture in the country.
- Within the framework of Law 3525, the National Council for Ecological Production (CNAPE) [*Consejo Nacional de Producción Ecológica*] and its Coordination Unit (UC-CNAPE) were created. CNAPE is the key institutional actor promoting and implementing actions that encourage ecological production and marketing: the identification of ecological producers, promotion of market channels and associations focused on ecological production and the ecological label used in PGS systems. The law also established the National Service for Agricultural Health and Food Safety (SENASAG) [*Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria*] as the

authority responsible for the monitoring and control of ecological production at national level, registering producers and actors that participate in PGS and generating audit in activities meeting ecological conditions.

- Law 144 of 2011, the Productive Community Agricultural Revolution [*Revolución Productiva Comunitaria Agropecuaria*] establishes the institutional bases and the technical, technological, political and economic mechanisms of the production, transformation and commercialization of agricultural and forestry production, and prioritizes organic production. The law also acknowledges indigenous farmers, intercultural and Afro-Bolivian communities as Community Economic Organizations (OECOM) [*Organizaciones Económicas Comunitarias*]. Its policy is to improve traditional, organic and ecological agriculture and forestry as well as to respect local practices, knowledge and technological innovations that involve family farming, communities and cooperatives in achieving food sovereignty through domestic consumption and in generating surpluses.
- In 2012, the National Technical Standard of PGS [*Norma Técnica Nacional de SPG*] was approved by the management of CNAPE, AOPEB and SENASAG. This standard sets out the definitions and principles for obtaining PGS alternative certification.
- Law 388 of 2013 has the objective of legalizing and promoting sustainable agriculture and all production activities of Farmers' Economic Organizations of Indigenous Origin (OECAS) [*Organizaciones Económicas Campesinas, Indigenas y Originarias*], OECOM and all organizations involved in sustainable ecological family farming that use natural products, respecting the different ecosystems and involved in different markets: local, regional, national and international. This law focuses on sustainable family farmers as suppliers of ecofriendly and healthy food, which contributes to encouraging the important concept of food safety.
- Law 622 of 2014 on School Feeding in the framework of Food Sovereignty and Plural Economies [*Alimentación Escolar en el marco de la Soberanía Alimentaria y la Economía Plural*] guarantees access to a nutritional and high-quality ACE for all children in Bolivian schools. This law aims to: (i) improve nutrition through better access to food; (ii) improve school performance, student presence in schools and reduce truancy; and (iii) support the local economy and family farming by giving priority to purchases from local suppliers and to consumption of local products. The law considers as native people local suppliers, the Associations of Small Rural Producers (APPR) [*Asociaciones de Pequeños Productores Rurales*], OECAS, OECOM and the indigenous, intercultural and Afro-Bolivian families involved in sustainable family farming. Municipal level initiatives such as the *Súper Ecológicos* micromarket network, which is a network of shops specialized in ecological and natural products, located in cities such as Cochabamba, Santa Cruz and La Paz; agro-ecological open-air markets such as Bio Tarija, Bio Achocalla, the "De la Chacra a la Olla" fair in Santa Cruz and Eco Fair Cochabamba, where local and ecological farmers, with PGS and ecological and in transition labels meet each weekend to sell and exchange fresh, local and healthy products to consumers, through direct sales.
- At Tarija department level, PGS is an alternative certification that promotes production, transformation and commercialization of ecological products, guaranteeing ecological quality and generating trust in consumers. The principles promoted are shared vision, participation, transparency, trust, horizontal relationships and continuing education, and all are involved in the technological/productive, environmental, sociocultural, economic and political dimensions. PGS gives producers the possibility of certification with ecological and in transition labels, depending on how far advanced farmers are in their practices. Producers, processers, traders and consumers are all actors involved in PGS.

School feeding of quinoa porridge in Tarija

Source: A. Jimenez, 2015.

- The Yunchará municipality makes the right of food for children one of its principal policies. Since 2010, the local government has prioritized school feeding, reduced malnutrition levels and valorized local production, which has facilitated access to fresh, ecological and high-quality products and supported the sustainable family farming initiatives of schoolchildren's families.

HOW IS BUSINESS CARRIED OUT?

The agro-ecological initiative of certification with PGS for local market in Tarija is coordinated by public and private institutions, which have been key intermediaries for the development and visibility of the local ecological production. The Bolivian Ministry of Rural Development and Land (MDRyT) [Ministerio de Desarrollo Rural y Tierras] is the principal institution that promotes agro-ecological production through projects, extension, promotion of practices and laws. AOPEB, which has national, departmental and municipality influence, uses members' fees to finance the promotion of agro-ecological practices and supply technical and business services to the members of the association in production, transformation, certification (PGS) and marketing. AOPEB comprises 85 partners from 61 ecological producers' organizations (about 70 000 ecological producers in about 90 municipalities, five associations in Tarija), 14 ecosocial enterprises, nine NGOs/foundations and one university. New members can join yearly at the assembly and pay an inscription fee of US$350 (to become part of the association), and an annual "social fee" of US$50 for a group of 50 farmer members, while associations with more than 50 members pay one dollar for each member. As public agencies, CNAPE/UC-CNAPE develop all agro-ecological promotion activities funded by public resources and establish the criteria and standards for the ecological quality of products, the PGS process and the use of ecological and in transition labels. SENASAG is another public entity that is managed with public resources and performs the regulatory role of registration.

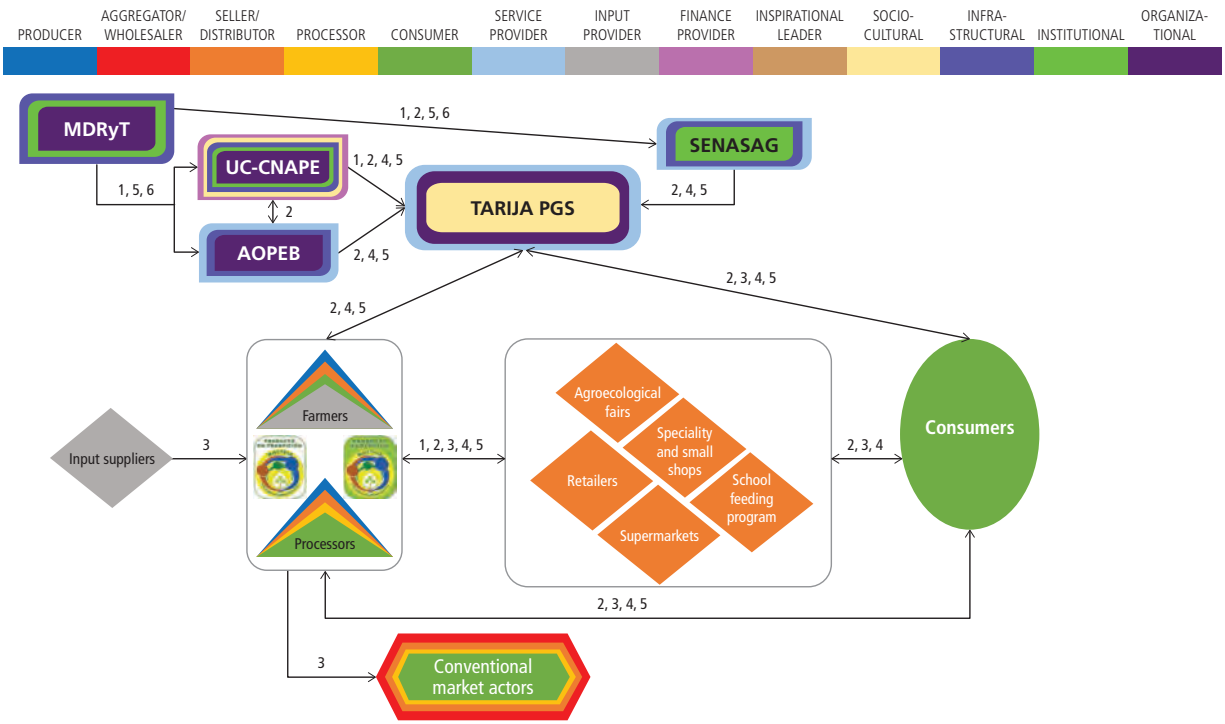
In the PGS certification process, specifically in Tarija, key actors participate in guaranteeing the ecological quality of products through social agreement, control and guarantee, and local consumption. These actors are producers, collectors, processers and traders, including individuals, families or farmer groups and associations, indigenous farmers, consumers, evaluators (people with experience in and knowledge of ecological agriculture who evaluate the production and processing processes of ecological products on farm, following the principles and framework of the technical standard) and a Guarantee Committee. This committee controls and monitors enforcement of rules and norms and qualifies producers and processors as ecological or in transition. It consists of farmers and producers; producer and indigenous farmer representatives; a CMPE representative; a representative of the municipal government or other public/private institution involved in ecological agriculture; and a PGS representative – a man or woman responsible for PGS legal representation, who has been democratically elected and may also be a producer. The PGS representative, among other responsibilities, acts as an intermediary between PGS actors and SENASAG, weighs up their observations and emits a guarantee document based on actors' qualifications.

Once producers and processors have PGS certification and labels, they can participate in the specific market channels of both public and private initiatives. The principal market channels for ecological products in Tarija are speciality shops (public and private), ecofairs and public procurement. PGS producers and processors who live around Tarija go to the city centre to sell their products. In Yunchará, for example, the government acquires local products for the school feeding programme, through direct purchases from associations of producers and processors (that have to be registered in SENASAG) according to their requirements and the technical characteristics of products. These associations are supported technically by experts in the production, processing and sanitary field. The main associations are those of quinoa producers, Valle de Tojo (*api, tojorî*), Virgin del Carmen de Yunchará women's producers (broad bean cakes) and Yunchará broad bean producers (broad bean milk and chocolate).

Bio fair in Tarija

Source: A. Jimenez, 2015.

FIGURE 2
Actor map



Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Source: authors' elaboration, based on interviews.

The business model of the initiative has the following characteristics

1. ***PGS to assure ecological practices.*** The initiative offers the possibility of certifying producers with two standards and their corresponding labels to verify agro-ecological quality of production: ecological and in transition. Public and private institutions and civic society, including producers and consumers, participate in PGS certification processes. The wide acceptance of PGS by consumers has increased the demand for and interest in agro-ecological products in market channels. Social control is the PGS mechanism for monitoring, control and verification of agro-ecological principles and standards, in which producers, consumers, public agents, and other social and local actors are involved. The social control component of PGS, with SENASAG supervision, allows small farmers access to market channels, ensuring their ecological, sustainable and healthy practices.
2. ***Participatory decision-making.*** Producers and processors have the possibility of applying ecological production systems and methods more adapted to the ecosystem and to the natural resources around farms. In the PGS process – on the basis of participation and discussions among consumers, producers and intermediaries – producers take autonomous decisions not only on agro-ecological practices but also on product quality, marketing strategies and potential market channels.

School feeding programme breakfast in Tarija

Source: A. Jimenez, 2015.

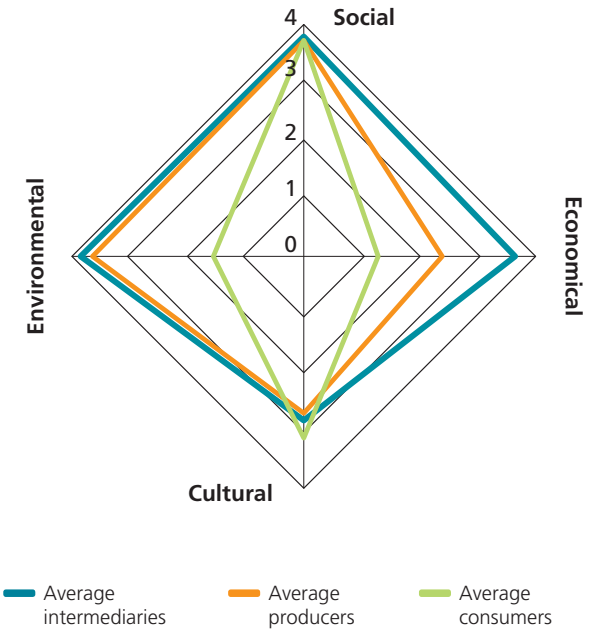
There has been collective effort in the creation and development of the Tarija agro-ecological initiative; all parties actively participate, and are involved in governance and decision-making. Promoting participation and sociability, the initiative encourages the creation of links among producers, intermediaries and consumers – people who were rarely in the habit of socializing.

3. ***Community embeddedness.*** The multicultural aspects of the community are taken into account by the initiative and embedded through supporting local socio-economic and political initiatives, respecting traditions and cultures, and creating spaces for socio-economic development of the community. Projects to involve families in the supply of fresh and processed food for SFPs are being developed, not only with the objective of generating income for families but also to involve them in food production for schoolchildren. Initiatives supporting families in the preparation of food have been developed so that they can learn to cook good and nutritious food. The result is a greater focus on the values of sociability, solidarity and trust in community relationships.
4. ***Political and social vision.*** The formal structures and strategies developed by the initiative are part of a shared social and political vision. This vision prioritizes respect for life, the population's right to food safety and sovereignty, and the welfare of the families and organizations involved in ecological production. It promotes the active participation of families in local political decisions in the initiatives and projects of governments and CMPEs/CDPEs. Through the latter, families and organizations participate in rural development polices, develop their management capacities and competences in generating proposals and strategies of political influence and participate in strengthening the agro-ecological production system and conscientious consumption. Over time, this vision has been adapted to the social, cultural and economic conditions of the community, encouraging actors, particularly producers, to be participants and to promote political and social influence.
5. ***Financial independence.*** The initiative provides a form of financial autonomy through collective management of capital and decision-making by actors involved in the system. Family participation in the production and processing of products for market channels contributes to income generation and financial autonomy. The economic dimension of the PGS standard promotes food safety through food self-sufficiency, generation of surplus food for improving incomes and economic welfare, and a direct, diversified and fair commercialization of products for families.
6. ***Oral agreements.*** In Tarija, the initiative encourages and manages oral agreements establishing trust systems among producers and intermediaries. Speciality shops also have oral engagements with producers' associations. In some municipalities, such as Yunchará, the government has established direct purchase to link ecological products to public procurement of school feeding, thereby enabling local producers to participate in and supply this market through oral agreements and short production contracts. Within these agreements, participation, prices, type of products, qualities and agro-ecological practices are established.
7. ***Inclusivity.*** This initiative tries to include small producers (particularly the most vulnerable), women, farmers' associations and communities. There is no socio-economic differentiation as a condition for participation and families are recognized as important actors in the achievement of ecological agriculture.

School breakfast in Yunchará

Source: A. Jimenez, 2015.

FIGURE 3
Perception of sustainability (n=15)



Source: authors' elaboration, based on interviews.

8. ***Environmental and social sustainability.*** Globally, and particularly with regard to the social and cultural dimensions of sustainability, the different actors perceive this agro-ecological initiative to be sustainable (Figure 3). The initiative promotes direct contact among producers, consumers and intermediaries, who were not in the habit of interacting. It also creates discussion spaces such as the on-farm PGS processes, public direct purchase, oral agreements and direct sales in biofairs, which have contributed to building up common knowledge of ecological agriculture. Intermediaries are the most positive about the initiative, particularly regarding environmental, social and economic dimensions. This perception can be linked to their relatively higher participation in the PGS process, the development of projects on ecological lines and direct purchases from producers and processors. This provides them with knowledge and experiences that facilitate the perception of strong sustainability. Producers are less enthusiastic about economic sustainability, mainly because they consider that even with fair prices in markets, they cannot sell at a price higher than the conventional market and because they need to earn better incomes. Consumers are less positive with regard to the environmental and economic aspects of sustainability. This perception can be linked to their low participation in the process because of lack of time and information, showing that they are unclear about the ecological dimensions involved.

Ecological garden in a public school in Yunchará, Tarija

Source: A. Jimenez, 2015.

HOW ARE MARKETS CREATED?

With institutional support, the Tarija agro-ecological initiative has helped in creating and improving market spaces for agro-ecological products.

Where do production inputs come from?

Agro-ecological production inputs in Tarija come from the farmers' own production. This is a requirement for PGS certification. Seeds, biological pesticides and fertilizers, salts and compost are the main ecological inputs from farms. Farmers report benefits in their own production of inputs such as ease of production, certainty of the agro-ecological origin, recycling of farm biological material (domestic waste) and a reduction in production costs. Some producers and processors acquire seeds and other biological inputs from agricultural stores and biofairs, and exchange them with other producers, giving them the benefits of greater productivity, good prices and good local quality.

Where do products go?

Although ecological production in Tarija is not new, growing interest has been shown by the population in production and consumption as a result of certain factors, including the emergence of modern diseases such as cancer and gastritis and a perceived loss of quality in food. This increasing need to produce and consume healthy

TABLE 2
Where can ecological products be found in Tarija?

Market channel	
Supermarkets	4–10% conventional markets
Open-air markets	
Small shops	
On-farm shops	96% agro-ecological markets
Direct sales	
Farmers' markets/ecofairs	
Speciality shops	
Internet sales	
Public procurement	
Own consumption	

Source: authors' elaboration, based on interviews.

food has been encouraged by institutional support in the creation of new market channels, offering better access for ecological products. Producers (nine out of ten) allocate about 58 percent of their production for agro-ecological markets, about 38 percent for their own consumption and 4 percent for conventional market channels (used when producers have surplus production – only one of the producers normally allocated about 10 percent to these markets).

A wide range of agro-ecological products with PGS certification reach consumers through diverse market channels. Besides the traditional market channels such as on-farm sales or direct markets, four important market channels have been developed:

- direct sales in Tarija farmers' markets (biological fairs) through the Bolivian Ministry of Rural Development and Land (MDRyT) initiative;
- sales through intermediaries in speciality shops, which are both private and public initiatives;
- sales through traders in conventional or open-air markets;
- public procurement markets through SFPs.

The municipal government purchases local products directly, in order to supply breakfast and lunch under their SFPs for all elementary and secondary schools in the municipality. Ecological products can also be found in other market channels (Table 2). These market concepts are linked to local food chains and the implementation of PGS is important as a mechanism that generates trust and qualifies products.

What marketing strategies are used?

In Tarija, the Saturday ecofair is seen as one of the most important market channels for agro-ecological products. Consumers come each week to buy products from the fair because they perceive that the consumption of ecological products improves their health, and also because they obtain fresh food that tastes good directly from the producers. Consequently, producers appreciate and use this market channel as the place where they bring most of their produce. However, when there is a good season and production increases, they sell part of their production at the ecofair and part at the conventional market [*mercado campesino*]. The logistical organization and recognition of their ecological production practices are the main benefits perceived by farmers and processors participating in Tarija ecofairs, together with the chance of obtaining higher revenues, setting better prices and selling their entire stock. These benefits facilitate the choice of ecofairs as the principal strategic market channel for selling ecological products. Marketing publicity, radio announcements, putting up their PGS certificates and using common tents are additional strategies that farmers use to help consumers recognize the ecological quality of their products. Price discounts are applied when customers buy large quantities of products.

Strategies have been developed by municipalities to supply food to schools. For example, in Yunchará, where 100 percent of schools provide breakfast, the government promotes family production initiatives to supply the food; extracurricular activities with families and students where healthy consumption practices are promoted; the participation of families and students in ecological gardens; and a minimum of 30 percent of purchases from local producers and associations. Direct

Direct contact and product tasting in an agro-ecological shop in Tarija

Source: A. Jimenez, 2015.

sales to public procurement markets are one of the key strategies to promote small and local farmers since, for some, they represent one of the safest market channels.

Challenges or opportunities for market access?

Lack of information is the principal challenge in accessing markets in this initiative. Consumers do not have the ability to differentiate and recognize agro-ecological products without specific information, and this has not been shared enough to generate regular demand. Intermediaries also reported a lack of knowledge about products and practices. Consumers and intermediaries had difficulties in finding agro-ecological products (because of low production quantities), and particularly noted the lack of well-known and established places to access them regularly. Producers noted little access to information about demand, especially about the products and qualities sought by consumers.

Producers explained the short supply of agro-ecological products as resulting from challenges in mobility (transportation); the distances between farms and the markets in Tarija (which increase transport difficulties and costs); uncertainty about demand (which makes production planning difficult); insufficient government support; and weather conditions that affect the amount of produce farmers can bring to market. One of the principal processing challenges is the lack of clean water in the municipalities in Tarija – producers use wells to obtain water for the different processes. This makes it more difficult to meet the sanitary regulations that would improve access to public procurement market channels.

HOW IS VALUE CREATED?

What are the characteristics that give value?

Visual and physical characteristics were significant in qualifying the agro-ecological products requested by intermediaries and consumers. Colour appeared to be the most important (as stated by seven actors, Figure 4). Other characteristics concerned the visual aspect, as well as taste, size, smell and freshness. Ecological quality was also required, which means that actors have begun to recognize the ecological attribute as a quality that can be found on the market. Certification of ecological products was particularly important for intermediaries, who want to see a label on the product confirming its characteristics. Nutritional and safety aspects were not significant in general terms, but were important for intermediaries and processors with specific market channels that ask for sanitary and other specifications such as expiry date, protein content and moisture content (*charque*, dried fruit and jam are some examples). Price was not a factor in determining quality.

FIGURE 4
Characteristics of agro-ecological products

Source: authors' elaboration.

Creating shared value?

The above-mentioned qualities are principally communicated through personal contacts among actors (Figure 5), and generally take place at the time of sale or in direct sales among producers, consumers and intermediaries. Such interaction increases mutual trust among the parties and generates long-term relationships and repeat purchases. Producers claim that direct contact enables consumers to see, touch and taste the organoleptic qualities of the products, which is a very effective communication tool. This initiative also uses other communication media such as brochures, product testing and PGS. However, personal communication of qualities and prices remains the preferred method because it gives room for participatory discussion about price and quality and enables

FIGURE 5
How is quality communicated?

Source: authors' elaboration.

farmers to adapt their products and processes based on first-hand knowledge and consumer preferences. Such exchanges of preferences, suggestions and grievances are common practice.

The prices used in this initiative are based on production costs and yields and may change according to the production system and market channel. Market prices are either negotiated based solely on conventional prices or they may have a quality margin added. In the Tarija ecofair, farmers obtain market prices based on prices in conventional markets; some speciality shops set prices by adding a percentage to the supplier price; while others create price lists with suppliers that are updated every three months. Finally, in the public procurement market, the local government bases purchases on market competition where producers and processors present price lists annually during the tender process (for larger purchases). However, national laws encourage the acquisition of products from local territories to promote food safety and sovereignty, using retail recruitment (small purchases better adapted to the production capacity of small farmers) that allows monthly payment, and direct purchase, a more flexible modality in terms of requirements and that supports small producers. Except for public procurement for SFPs, prices are mainly communicated through personal contacts among producers, intermediaries and consumers. These actors have the opportunity to negotiate prices but negotiation rarely takes place, mostly because consumers are price takers.

This market price setting is considered fair by actors, especially for prices at ecofairs or farmers' markets. However, prices in open-air markets are perceived as unfair (Table 3), particularly because there is no geographic (different location of products and stands) or physical differentiation between ecological and conventional products. Producers also feel that wholesale prices are too low. Nevertheless, this market represents a safe market to sell surplus produce, especially when producers have significant yields. Speciality shops also represent a fair price market channel. The shops that were interviewed had a social mission – they recognized the socio-economic situation of the ecological producers and therefore bought products at attractive prices for them. Public procurement (SFPs) represents an important market channel but, from the point of view of intermediaries, is not fair. Given the low quality of the market channels, they prefer to pay low prices to support small producers. Specifically, governments work within a strict budget and most of the municipalities have low budgets, so the quantities allocated for each child is too low. Moreover, while the law encourages the purchase of ecological products, there is no regulation that obliges governments to pay more for them. This therefore puts ecological producers in direct price competition with conventional small producers. These drawbacks have meant a loss of interest on the part of producers to sell their products through this market channel. They have since shifted their attention towards those market channels where they can sell more often and can differentiate their prices better from conventional ones (at fairs, for example, where consumers are willing to pay much higher prices than conventional ones).

SCALING UP, WHERE TO NEXT?

Since the promotion of PGS through enactment of law 3525, the initiative has undergone some significant changes.

1. ***More consumers.*** More consumers are buying agro-ecological products and are interested in agro-ecological practices at ecofairs and in speciality shops. Spurred on by trust and the high-quality products, some consumers are becoming recurrent customers. In 2015, there were 1 380 beneficiaries of SFPs in Yunchará and more than 114 000 in Tarija.
2. ***Diversity of products.*** The involvement of consumers in markets has increased the

TABLE 3
How fair do actors think prices are?

	On farm	Direct sales	Farmers' markets	Super-markets	Open-air markets	Speciality shops	Small shops	Internet sales	Public markets
Mean*	4.00	4.33	3.69	2.00	2.44	4.25	2.00	4.00	1.00
N	4	3	16	1	9	4	1	1	1
Standard deviation	0.816	0.577	0.793	–	1.236	0.500	–	–	–

* 1= very unfair; 2 = unfair; 3 = neither fair nor unfair; 4 = fair; 5 = very fair.
Source: authors' elaboration.

diversity of products requested and producers have gradually been available to adapt their production to this new demand. Besides production of fresh fruit and vegetables, producers have diversified the type of products offered in the different market channels, especially processed products such as amaranth nougat, certain breads and *charque*. Projects to process innovative subproducts such as llama meat chorizos and burgers are being developed by associations and governments to use those parts of the meat that are not used for *charque* production, to improve incomes and access new markets. Municipalities are trying to diversify school menus, by offering products such as those made from broad beans, which children do not normally eat at home. Quality of presentation of products has also been improved in all market channels.

3. ***More producers involved.*** Seeing the agro-ecological producers has generated increased interest in participation in the market channels available for agro-ecological products. As a result, there are more farmers selling these products. However, numbers vary according to production capacity, challenges (weather, transportation) and season. In 2015, 51 ecological and in transition producers participated in the Tarija biofair.
4. ***Creation of new market channels.*** Besides the classic market channels such as on-farm sales, ecofairs and the public procurement market are two of the new market channels that have opened up to promote agro-ecological products.
5. ***Increase in sales.*** The participation of more consumers and the diverse products offered have generated an increase in sales for producers and intermediaries, a subsequent increase in incomes and better living conditions.

These changes have strengthened the initiative by generating an increase in farmers' revenues through their regular participation in more market channels. Producers and consumers are more interested in producing and consuming healthy and traditional food. Small producers have obtained more visibility for their work and increased participation in political and social decision-making at regional and national levels. There is increased interest in and knowledge about agro-ecology in the community.

Actors have initiatives to promote agro-ecological products and services that can help to promote agro-ecological production and consumption:

- Consumers want to promote consumption through publicity and communication with friends and family and by participating in collective projects and PGS certification.
- Producers want to increase production through better management of production systems. They also want to produce a greater diversity of products that allows them to forge new market channels and meet the current demand, design better product presentation, participate in more ecofairs and obtain more visibility through the creation of new market channels and the introduction of innovative products.
- Intermediaries want to promote ecological certification, provide better access to new products, diversify the stock in their stores and open new ecological branches where customers can regularly access agro-ecological products.

Actors argued that, to achieve these objectives, the Government needs to support the initiative more, as it is an important player in its development in the country. This support includes the following:

1. Better support in the transition from conventional to ecological production systems, through more training, better promotion of the principles and dimension of PGS, guaranteeing markets for products and facilitating access to labels and logistic tools, and better monitoring and control during the process.
2. More assistance in the PGS certification processes through better extension of technical standards, the participation of more technicians and professionals in ecological

Charque and other llama meat products

Source: A. Jimenez, 2015.

production who can facilitate and streamline the process, better financial support for training and in obtaining documentation, simplifying and clarifying the requirements and procedures for ecological certification and to access to labels, and in the creation of market spaces and new market channels such as ecofairs.

3. Commissioning market studies for product valorization by consumers and publicizing the results. This would better address production decisions and the participation of producers in markets. It would inform consumers about the mechanism and significance of ecological labels, increase current public purchases of local and ecological products and make requirements for access to this market channel more flexible and less formal.
4. Financial support for all activities that involve agro-ecological production, from production to consumption, at national, regional and local levels in all links of the agro-ecological food system.

Sateré-Mawé Native *Waraná* Presidium[1], Manaus, Brazil

INTRODUCING THE INITIATIVE

The Sateré-Mawé, an indigenous people[2] living in the Brazilian Amazon, are known to have created and preserved *guaraná* culture (*Waraná* in native language). They were the first to domesticate and cultivate the plant and initiate the *guaraná* extraction process. Native *guaraná* (*Paullinia cupana* var. *sorbelis*), discovered in the virgin forest and disseminated by the people over the centuries, has been the quintessential traditional and spiritual food of the Sateré-Mawé since time immemorial. In the heart of the Brazilian Amazonia, between the states of Amazonas and Pará, a region of 8 000 km^2, the Andirá-Marau Indigenous Land is home to the indigenous reserve – the ecological and cultural sanctuary of Waraná, the only on-site genetic database of *guaraná* in the world. The Brazilian Constitution grants autonomous use of this indigenous reserve to the Sateré-Mawé (approximately 13 350 people [3]in 2014, distributed over about 100 villages).

The importance of native *guaraná* lies in its being at the base of the economy of the Sateré-Mawé: not only because it is the most valuable product commercialized, but also because it has a generational importance for the social, economic and cultural development of the population. In 2002, recognizing the importance of protecting the *guaraná* culture in Brazil, the Slow Food Foundation for Biodiversity created the Sateré-Mawé Waraná Presidium,[4] with support from the Brazilian Ministry of Agricultural Development. The purpose of the Presidium is to save native

Key facts

Country: Brazil
Region: Andirá-Marau Indigenous Land, Amazonas-Pará
Year initiative created: 2002
Producers: 400 families
Consumers: local (100 villages), and in 20 countries around the world (particularly in France and Italy)
Different types of actors in the initiative: 6 (producers, community elders, local and international NGOs, consumers, certifiers, boutiques)
Number of links in supply chain: 3
Core products: *guaraná*, honey, cassava, oranges, flour, cashew nuts and some native and medicinal herbs from the forest (non-wood products)
Geographic market size: local, regional, national and international (fairtrade)
Number of market channels: 8
Type of market system: diversified market network
Definition of agro-ecology:

healthy
food
good

Challenge for market access: unfair competition in markets, based on low-priced conventional *guaraná*
Main lesson: financial autonomy of families within the collective and good market information enable strategic market access
Opportunity for scaling up: certification and labelling initiative that could align social vision of all actors along the value chain

"By maintaining and reviving our culture, disseminating our science and cultivating the living forest, we could and can be a model for and engine of real Amazonian development."

Maurizio Fraboni, Obedias Garcia – project coordinators.

[1] This factsheet was written by Alejandra Jimenez, based on data collected by Maurizio Fraboni, Eleonora Olivero and Obadias Batista. A total of 15 interviews were conducted where four producers, five intermediaries and six consumers were interviewed.
[2] http://www.nusoken.com/
[3] Povos Indígenas no Brasil: https://pib.socioambiental.org/en/povo/satere-mawe/968
[4] http://www.fondazioneslowfood.com/en/slow-food-presidia/satere-mawe-native-warana

FIGURE 1
Brands and labels used for Sateré-Mawé products

In 2016, Sateré-Mawé *guaraná* was certified as an organic product according to CERES standards

Family farming label for Sateré-Mawé products traded with the Nusoken label for internal markets

Own brand especially for local and national Brazilian markets

Label used for fair trade market channels

International certification for Sateré-Mawé *guaraná* and other non-wood forest products as organic products and Forest Garden products (2001–2015)

Sateré-Mawé *guaraná* products are certified by Slow Food as traditional food production

Source: http://www.nusoken.com

guaraná from extinction and protect the unique regions and ecosystems where it is produced. It also aims to reduce access to the seed by large companies interested in obtaining control over the people and the market. The Presidium supports native *guaraná* production through sustainable practices; promotes and protects local traditional production practices; works for the production and conservation of native and indigenous seeds; and promotes the ethnodevelopment and local and social context of the Sateré-Mawé.

The previous favourable historic-economic conditions of the 1990s enabled the people's own political and organizational autonomy of the initiative, based on the surplus generated by *guaraná* exports, principally to Italy and France, and the totally self-financed social project. Today, the project guarantees a home surplus and a market niche for *guaraná* and its by-products, where the value of the Brazilian endemic nature and intrinsic quality of the products are guaranteed and promoted. They can now be found in over 20 countries worldwide. The initiative has also evolved from a local perspective, in terms of Sateré-Mawé ethnodevelopment and through extra-organizational channels, through practical work with (commercial) partnerships, which have been forged to promote products in the same way as the project.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

Since 1995, building an agro-ecological food system has been a fundamental part of the Sateré-Mawé Integrated Ethnodevelopment Project [*Projeto Integrado de Etnodesenvolvimento* – PIE]. The people have been charged by the Brazilian Constitution to promote autonomous sustainable

Sateré-Mawé Waraná

Source: Slow Food, 2017.

production of *guaraná*. All production of native *guaraná* and other forest products is monitored and traded by the initiative, while the Sateré-Mawé Producers' Consortium (CPSM) is certified as native, organic, traditional, patrimonial, cultural and as respecting biodiversity in line with the principle of analog forestry (Forest Garden production). The initiative adheres to the social principles of Fairtrade International and the environmental protection of the European Union organic regulation, which forbids the introduction and use of synthetic pesticides and chemical fertilizers. Any introduction of these inputs is likewise considered a violation of the Statutes of the Tribal General Council of the Sateré-Mawé (CGTSM) and of the International Labour Organization (ILO) Convention 169 (Indigenous and Tribal Peoples Convention, 1989).[5] Other agro-ecological practices followed by the initiative are the following:

- Strong resistance against the intentional introduction of *guaraná* clones, to avoid destruction of the genetic heritage of native seeds.

The mandatory use of indigenous seeds:

- Preserve genetic heritage
- Restore food and therapeutic sovereignty
- Keep indigenous epistemology alive – an autonomous capacity to understand and develop knowledge and the significance of the environment and biodiversity

- A separation system for inorganic waste practised by the Sateré-Mawé Women's Association. External funding for promoting this practice has ended, but has left in place an important educational legacy in community waste management.
- Since 1999, the community has addressed its efforts to protecting and domesticating native bees and has participated in the protection and restocking of turtles so as to preserve their biodiversity.
- In 2015, a seed exchange was inaugurated among the communities.

Actors involved in the initiative define agro-ecological food as healthy, clean and fair, with specific nutritional characteristics, tasty, and of very good quality. The food is produced in an ecological way, without chemicals and pesticides, and using sustainable practices to manage and conserve the forest while producing daily food.

IS THERE AN ENABLING ENVIRONMENT?

The 1988 revision of the Brazilian Constitution recognizes the right of indigenous peoples to live in their traditional territories according to their customs and allocates responsibility to the Government for demarcating indigenous lands, and providing bilingual education and health care adapted to indigenous needs and beliefs. Brazil ratified the 1989 Indigenous and Tribal Peoples Convention (ILO C169) on 25 July 2002. FUNAI, the National Indian Foundation, was established in 1967 and is responsible for mapping out and protecting lands traditionally inhabited and used by indigenous communities. It is charged with preventing invasions of indigenous territories by outsiders. Organic and agro-ecological agriculture is authorized in Brazil by national legislation – Law No. 2003/10831 and its decrees and normative statements. This law establishes standards for organic production, particularly by prohibition of synthetic fertilizers, transgenic inputs and other synthetic or

[5] ILO Convention 169 establishes the rights of Indigenous and Tribal Peoples, recognizes them as institutions with specific cultures, ways of life, traditions and laws and notes their participation in the decision-making processes in the countries in which they live. http://www.ilo.org

agrochemical inputs. It also offers three forms of acceptable certification: third party, participatory guarantee systems (PGS) and social control (for local markets only).

National laws provide a basic legal framework for protecting and promoting Sateré-Mawé traditional practices. However, the Native Waraná Presidium has been part of projects and initiatives that have provided support for its emergence and continuity, and promotion of native *guaraná* and other ecological products.

- With 20 years of operation, the Integrated Ethnodevelopment Project (PIE) protects and saves Sateré-Mawé *guaraná* from extinction, preventing clones from entering the sanctuary and guaranteeing the survival of native species at risk of radical genetic impoverishment through cross-pollination by native bees. However, this protection not only includes genetic issues but also reproduction and production practices, processing methods, consumption, art, culture, ecology and socio-economic characteristics regarding the Sateré-Mawé indigenous people.
- The Sateré-Mawé community has been part of the Food Purchase Programme (PAA), a federal government public programme, through the National Supply Company (CONAB) in order to establish a stock of *guaraná* and other products to be included in school feeding programmes.
- The Presidium has support for obtaining a designation of origin for Andirá-Marau Indigenous Land *guaraná* from the Food and Agriculture Organization of the United Nations (FAO); the Coordination of Geographical Indications (CIG) for Agricultural Products of the Ministry of Agriculture, Livestock and Supply (MAPA); the General Coordination of Ethnodevelopment Promotion (CGETNO) of the National Indian Foundation; and the National Institute of Industrial Property (INPI).
- Via Slow Food Brazil, the Presidium played a direct role in preliminary dealings with MAPA to prepare an official instrument for registration with INPI.
- In collaboration with the Federal University of Amazonas (UFAM), the Presidium is working on protecting the growing of *guaraná* as an "intangible cultural heritage".
- The Presidium is fifth centre in the Indigenous Studies degree in educational policies and sustainable development offered by UFAM's Institute of Arts and Humanities (ICHL).

HOW IS BUSINESS CARRIED OUT?

Collective ownership of the initiative indicates that the community is working as part of a loop in production- and consumption-based collective values such as solidarity. The principal organizations involved in the initiative are the Tribal General Council of the Sateré-Mawé (CGTSM) and the Sateré-Mawé Producers' Consortium (CPSM). CGTSM is the Sateré-Mawé civil society instrument with a cultural and traditional science basis and has the objective of managing the territory. It is made up of community people: representatives from each village community; indigenous sectoral organizations (of teachers, health professionals, self-employed women, etc.); the Livre Academia do Wará (a council of elders); and family members. The principal role of CGTSM is to manage and control the Integrated Ethnodevelopment Project and provide ethics and political orientation in the activities of the initiative. CPSM is an "autonomous auxiliary entity" of the CGTSM and is made up of 400 Sateré-Mawé families. It is an institution that organizes the farmers who preserve and produce *guaraná* in the traditional way and who seek economic, political and social autonomy and alternative markets. CPSM guarantees both the rights of producers in the community and the ecological, social, cultural and intrinsic quality of the products for consumers and the certification bodies, by means of an internal control system. It should eventually become a participatory certification body.

The following organizations also participate in the initiative:

- Amazonian Indigenous Consultancy and Research Association (ACOPIAMA) (about seven people), a Non-governmental Organization (NGO) that has a local, national and international scale of operations in research and development, consulting, strategic planning, conflict resolution and cultural mediation.
- International Analog Forestry Network (IAFN) (about eight board members), an international network that certifies biodiversity products, particularly agro-ecological ones.
- Slow Food, which has national and international impact, one of the networks that supports the Sateré-Mawé initiative in the promotion of events and cultural presentations.

The speciality stores CTM Altromercato (Italy) and Guayapi (France) are important actors that not only participate in the initiative as market

channels but also as fair trade promoters and distributors of cultural representations and indigenous traditions and values.

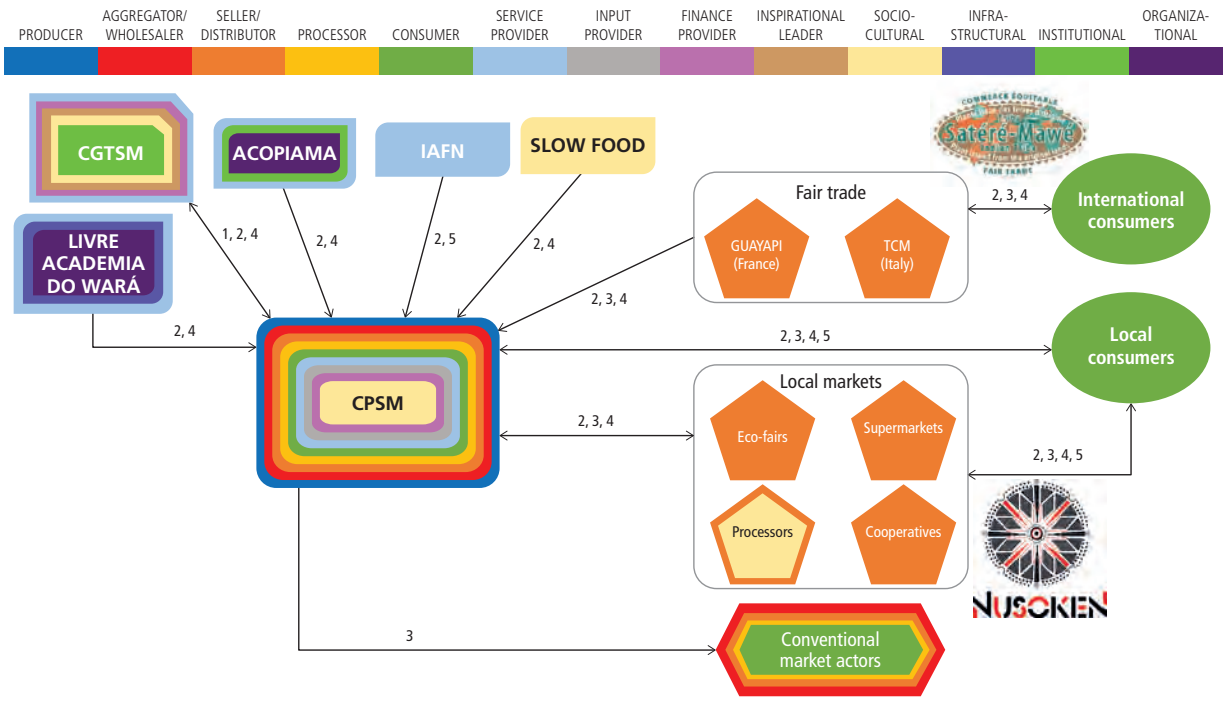
The economic role of the initiative consists in the production, processing, packing, certification, consumption and marketing, in both local and export markets, of native *guaraná* and other Sateré-Mawé products: honey, non-wood forest products such as medicinal herbs, nuts and processing products. The sale of products represents the main income of the initiative and its business model is characterized as described below.

1. ***Community embeddedness.*** Producers are an integral and important part of the community; without them it would not be possible to talk about ethnodevelopment. The specific needs of the community, ethnodevelopment and the local context of indigenous culture were carefully considered by the initiative before attempting any integration and acceptance by the community. The initiative is in constant evolution and is designed to be adapted to the cultural and socio-economic needs of the community as it evolves. It works as part of a local production and consumption system based on the values of solidarity, respect

Dried *guaraná*

Source: Slow Food, 2017.

FIGURE 2
Actors in the initiative



Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Source: authors' elaboration, based on interviews.

and sociability that strengthen links within the community. At the same time, however, it tries to transmit these values to distant consumers in Europe, which it does through its fairtrade certification and direct trading relationships with its two European partners.

2. ***Collective ownership and participatory decision-making.*** The collective initiative is integrated into the Sateré-Mawé community. Producers participate in CPSM decision-making, which develops common production protocols and promotes collective marketing of products. Common areas for meetings, on-farm visits and agro-ecological fairs enable the various actors – producers, processors, intermediaries and consumers – to participate in decision-making about quantity, quality and prices of products. This social participation encourages solidarity and social links between individuals and the communities, especially between producers and consumers. However, this is feasible only with local consumers since international consumers are not part of CPSM or its decision-making mechanism.
3. ***Oral and signed commitments.*** Ethical and political commitment by the people to continue working within the community is made on a continuous basis through oral pledges. Each of the families are autonomous microproducers but follow common production protocols that encourage the production of healthy food for home consumption, intracommunity trade and promotion of collective action. However, if producers wish to be part of CPSM, they must sign a commitment regarding product quality. This defines the terms corresponding to fairtrade principles, agro-ecological production practices, access to shared benefits, analog forestry principles on the respect and restoration of biodiversity, and collective labour for the preservation of community culture.
4. ***Financial autonomy.*** Even if producers are members of CPSM and are regulated by protocols, families are autonomous micro-producers and are free to sell their production independently to the local market or to traders, depending on their economic needs. Community collaboration and space for dialogue generated by the initiative encourage producers to achieve financial independence. This is helped by CPSM practice whereby products are purchased from the associated producers according to prices set during the General Assembly, taking into account the needs and maintenance priorities of members.
5. ***Inclusivity***. The whole Sateré-Mawé community and the indigenous families living on the Indigenous Land are called upon to participate in the initiative. It offers all members an alternative solution to conventional agriculture and better living conditions. The initiative works on the establishment of an integrated company that includes small producers, indigenous communities, women, intermediaries and traders who share objectives that are in line with the vision of the initiative. The project works at each phase of the value chain, from the collection of native seeds to the commercialization and management of domesticating native bees.
6. ***Internal and external quality control.*** The initiative has a recognized system to establish and guarantee the quality of its products. An internal control system based on CPSM production protocol enables the initiative to promote and trade only high-quality products grown agro-ecologically. Various types of certification and labels ensure the quality of products: ethical, agro-ecological, organic, designation of origin and fairtrade. These recognition systems differ according to the target market: certification for organic and fairtrade networks, tasting at events and gourmet food; general standards for unengaged networks. Price and labels vary according to the level of quality desired and the target market.

Inclusive community processing of *guaraná*

Source: Jacques Minelli Satoriz, 2017.

7. ***Multilevel efficiency.*** Efficiency has been achieved for the multilevel actions internalized in the project. The initiative is working on integrating the economic, ecological, political, cultural and social effects of actions and decisions into each stage of the system (loop), making this into a model of articulated action to achieve agro-ecological food systems.
8. ***Strong sustainability.*** There is strong coherence in the perception of the social, cultural, environmental and economic sustainability of the initiative among intermediaries and consumers (Figure 3). These actors are deeply involved in the Sateré-Mawé vision of sustainable production and consumption, and participate in discussions with farmers and the Board, which give them knowledge and experience that facilitate the perception of strong sustainability. Producers are the least optimistic about the environmental and economic sustainability of the initiative, with economic aspects being judged the least favourably. They perceive the initiative to be strongest in terms of its cultural performance, particularly because markets have brought national and international recognition for traditional *guaraná*, which provides a guarantee of protection for their community and its specific cultural characteristics.

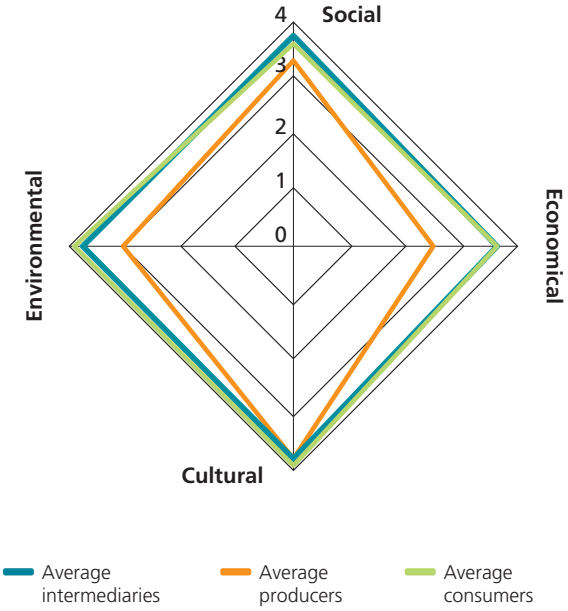
HOW ARE MARKETS CREATED?

The Sateré-Mawé Waraná Presidium has developed its initiative based on the production, processing, packing, consumption and trade of native *guaraná* and other Sateré-Mawé products in local and export markets. It has focused its target on markets that value Sateré-Mawé traditions and promote specific values such as forest stewardship, ethical concerns and community solidarity.

Where do products go?

The principal markets for Sateré-Mawé native *guaraná* are two distributors in the Fairtrade International network. Around 85 percent of *guaraná* is sold through this network via these two important distributors: Guayapi Tropical, an organic and equitable shop in France, which represents about 65 percent of the market; and CTM Altromercato, a fairtrade and solidarity trade shop in Italy, which takes about 20 percent of *guaraná*. These two market channels provide benefits for producers such as fair and high prices, recognition of their traditions, pride and trust. In the domestic market, where about 15 percent of production is allocated, the initiative sells under its own Nusoken brand, directly or through individual stores, the majority of whom share the fairtrade vision or operate in solidarity economy. Sateré-Mawé producers are also free to sell independently in the local market and through local traders, thereby gaining access to a wider range of market channels (Table 1). Their own consumption of agro-ecological products is traditionally significant – some producers allocate around 25 percent while others may keep up to 65 percent of their production for home consumption.

FIGURE 3
Perception of sustainability (n=14)



Source: authors' elaboration, based on interviews.

TABLE 1
Where can Sateré-Mawé *guaraná* be found?

Market channel	
Fairtrade	85% (organic markets)
Export	
Farmers' markets/ecofairs	15% (including agro-ecological and organic markets and conventional markets)
Cooperatives	
Supermarkets	
Processors	
Own consumption	
Traders	
Wholesale	

Source: authors' elaboration, based on interviews.

What marketing strategies are used?

The fairtrade network has been an important player in Sateré-Mawé marketing of agro-ecological and native *guaraná*. Producers participate in the annual General Assembly where business matters are discussed, including the various market channels and the benefits and challenges of selling in each. CPSM (Consortium) also has a sales agent who looks for markets that value social and environmental responsibility. The agent visits producers to discuss marketing and informs them of market opportunities and their advantages and disadvantages so that producers can make informed choices about where to sell their products. Some producers compare prices offered by the sales agent in the different markets while also comparing prices in conventional markets. This helps them decide where to sell their *guaraná*.

When production is low, the initiative has an equitable system for negotiating with distributors: the same percentage of products is sent to the Guayapi and CTM stores. The initiative also keeps a stock of Nusoken brand products to supply the domestic Brazilian market. Consequently, even in times of low production, the national market is not affected and can be supplied. The sales agent looks for markets where products have added value, are sustainable, respect the environment and create solidarity links along the value chain.

Challenges or opportunities for market access?

The existence of companies that sell similar products in conventional markets at low prices is the initiative's principal challenge. Such competition is considered unfair by half the producers (two out of four). They argue that it is socially irresponsible to pay a low price that does not take into account the socio-economic work involved in production that cares for the environment and is ecological and socially fair. Producers are also under pressure to adopt conventional agricultural practices that come with easier access to public credit and subsidies. Consequently, the community is still working hard to ensure that all community members can follow the agro-ecological protocols that respect the environment and conserve biodiversity.

Six consumers found the lack of local agro-ecological markets and fairs to be an important challenge in general. They indicated that there is only one agro-ecological farmers' market in the city that has fruit, vegetables and traditional plants, but that few products are available. It is possible to find some organic products in supermarkets and stores but they are few, are not fresh and are not local products. Consumers differentiated between agro-ecological and organic certification, saying that they recognized organic but were not aware of any agro-ecological certification. However, consumers identified Sateré-Mawé *guaraná* and honey as being produced with agro-ecological practices.

HOW IS VALUE CREATED?

What are the characteristics that give value?

Intrinsic attributes were significant in qualifying agro-ecological products demanded by customers. Culture and traditional values were the attributes most requested in markets for agro-ecological products (Figure 4). Producers and intermediaries noted that customers also wanted products with high nutritional qualities, farmed by people who had the same ethical principles and social beliefs, and who protected biodiversity. One of the intermediaries explained: "the products of CPSM

Powdered *guaraná*

Source: Slow Food, 2017.

Processed *guaraná* stick

Source: Oliviero Toscani, 2017.

are all classified as superfoods and they have a sacred value". These specific qualities were mainly requested by international market channels based on fairtrade's social criteria of equity and fairness. Slow Food customers look for intrinsic nutritional qualities in products. Other market channels are focused on organic and agro-ecological qualities and most of them require certification.

Good sensorial attributes such as smell and flavour were also sought. In the local market, consumers principally wanted low prices. Physical and ecological qualities were often mentioned together. For example, CPSM members value the qualities of smell and flavour as much as social beliefs, culture and nutritional characteristics.

Creating shared value?

Communication of agro-ecological product quality accompanies communication of the community's social, political, economic and cultural characteristics. The initiative uses all available media. Labels and certification (ethical, agro-ecological, organic and designation of origin) are the principal media that communicate the quality of products, particularly for export markets (Figure 5). Promotional materials produced by CPSM and the Tribal General Council are used: radio, clipboards, audiovisual media, digital media (Web sites, videos, social media) and paper documents (folders, posters and pictures). On-farm visits and personal communication between producers and customers are also important ways to communicate product quality within the community. Lastly, reputation and trust built around Sateré-Mawé indigenous products, especially *guaraná*, have led to national and international recognition of their qualities and nutritional properties.

Feedback on quality occurs principally during organic fairs and on-farm visits, where producers and consumers are in direct contact. CPSM provides feedback on quality through national and international fairs, sharing information with people and organizations interested in learning about agro-ecological products and with the general public as yet unaware of them.

Prices are set by CPSM and the Council during the Annual General Assembly. In meetings between the CPSM manager and key customers, prices are negotiated in the framework of long-term contracts based on transparency and compatibility with the initiative's vision and aiming to making the supply chain sustainable. Fixed prices are transparent and are communicated personally to producers in local markets, or in pictures, by radio, at meetings and through price lists that are in the public domain. This transparency and the fairtrade principles mean that most actors (three out of four producers and three out of five intermediaries) found prices to be fair in the market channel managed by CPSM, which includes the Guayapi and CTM stores and the Slow Food market channels.

FIGURE 4
Characteristics of agro-ecological products

Source: authors' elaboration, based on questionnaires.

FIGURE 5
How is quality communicated?

Source: authors' elaboration, based on questionnaires.

SCALING UP, WHERE TO NEXT?

Since its inception, there have been a number of important changes (see video)[6] in the Sateré-Mawé initiative.

- ***Increased member capacities***. The initiative and its different partnerships have led training in the indigenous management of natural resources and forests, integrated finance, activities and projects to build up the capacity of members and improve working conditions. This has generated a perception among actors that the Directors and Board have also improved in their functions.
- ***Better equipment, processes and transport solutions***. Logistic solutions have been some of the most important changes. They have been characterized by the purchase of better processing equipment, the purchase of transport to guarantee product quality and the construction of a processing and storage plant in the urban area of Parintins (outside the Indigenous Land). These solutions have enabled the initiative to internalize industrial processes and export functions, which have put an end to the need to outsource and thus begin a period of upgrading into processing activities by the community.
- ***New producers and products***. New producers are joining, at the rate of 60 families per year. Producers included in the fairtrade network have introduced native and forest products such as annatto (*Bixa orellana*), cat's claw (*Uncaria tomentosa*), *muira puama* (*Liriosma ovata*), *cumari* (*Capsicum chinense*), Brazil nut oil (*Castanea sativa*), *muiraruira* (*Cipo floramira*) and other non-wood forest products.
- ***Better communication*** through a new radio programme (once a week).
- ***Organic labels, designation of origin and other certification*** for products.
- Improved ***institutional relations and agreements*** at national and international levels.
- ***Market diversification***. Opening up a domestic market and trading native *guaraná* in more than 20 countries.

The future of the Sateré-Mawé community

Source: Jacques Minelli Satoriz, 2017.

These changes have strengthened the initiative, giving producers and their community economic and financial autonomy by strengthening their social and cultural identity. They have also improved food security by generating incomes that have given families guaranteed daily, high-quality food. As a result, healthy families and producers have become more interested in participating in the initiative through the practice of ecological activities. To reach its current scale, the initiative has tried to harmonize private interests with its vision of the public interest in order to build up an integrated system, culturally within their community and within their regional territory, for both production and consumption. A co-evolutionary strategy among partners has built up strong reciprocal and continuous relationships.

To scale up, CPSM wants to promote its vision more broadly within the community in order to include more producer families. It will continue to support producers in fairtrade and certification of production, and explain the importance of agro-ecological production and consumption in maintaining a wholesome and healthy life. To achieve this, the most important support is civil society mobilization, whereby different people can take on responsibilities and seek partners to build agrifood systems more adapted to their interests and social vision.

[6] https://www.youtube.com/watch?v=E8c3qm14Hak

Mapuche ethical label[1], Villarrica, Araucanía, Chile

INTRODUCING THE INITIATIVE

Founded informally in 1999, the Kom Kelluhayin Corporation (CKK) was the first entirely indigenous Mapuche [*mapu* = earth; *che* = people (of the earth)] farmers' association to bring together Mapuche families in the Araucanía region of southern Chile to preserve their indigenous gastronomic and cultural traditions through the marketing of products produced by Mapuche farmers. In the early period, the focus was on adult education and awareness raising about environmental concerns, particularly the plantation forestry industry that was being set up in the region and threatened Mapuche livelihoods and environment. In 1999/2000, the first legal structure of CKK was established, made up of 11 farmers' committees (ten in the municipality of Villarrica and one in the municipality of Panguipulli), covering the territories of Putue, Calfutúe, Afunalhue, Malloco Lolenco, Hualapulli, south Liumalla, central Liumalla, Chaura, Quetroco, Challupen and Traitraico. About 250 families participated in the initiative. The original motivation for creating the cooperative during the time of the Pinochet regime was in protest against a lack of state support in the region. From 2003 to 2005, CKK decided to set itself apart in the growing market by creating an ethical label for its products [*Sello Etico Mapuche*]. In 2010, CKK was officially registered as a Non-governmental Organization (NGO).

In 2012, part of CKK in Villarrica that had converted to agro-ecological agriculture registered as a farmers' cooperative under the name Wemapu Agro-Industrial and Forestry Cooperative of Agro-ecological Producers [*Cooperativa Agroindustrial y Silvícola de Productores Agroecológicos Wemapu*]. This initiative, with 16 families, was

[1] This factsheet was written by Alejandra Jimenez and Allison Loconto, based on data collected by Allison Loconto in 2015. A total of 13 interviews were conducted, including interviews with four producers, seven intermediaries and two consumers.

Key facts

Country: Chile
Year initiative created: 2010 [1999]
Producers: 250 [16] families
Consumers: 700 (approximately), via direct sales
Different types of actors in the initiative: 4 (producers, consumers, hospitality industry, university)
Average number of links in supply chain: 1.3
Core products: quinoa, local beans (*porotos*), eggs, honey, medicinal herbs, wild collected fruit (wild berries) and seeds
Geographic market size: local and regional
Number of market channels: 6
Type of market system: sociocultural market network
Definition of agro-ecology:

Challenge for market access: lack of sufficient agro-ecological production to meet demand
Main lesson: creating linkages between ethical consumers and agro-ecological producers can revitalize indigenous traditions
Opportunity for scaling up: internal improvement and market channel creation

"We are conscious that we are part of the land, we cannot use chemical inputs. I am Mapuche, which means son of the Earth, so we cannot destroy it (our universe and cosmology)."

Gabriel Curilef, Technical Manager of Wemapu.

chosen because of the innovative markets that had been created in the Temuco region and because of their mixing of agro-ecological production with traditional production methods. Specifically, collaboration was initiated in 2010, with funding from the Foundation for Agricultural Innovation (FIA) of the Ministry of Agriculture, to set up a public-private partnership with six hotels/restaurants, the farmers' market network (*ferias*), an artisanal association, the Agroindustry Institute of Temuco University of the Frontier, and Wemapu farmers' organizations to begin direct sourcing of fresh vegetables and quinoa to local restaurants. The objective of the project was to contribute to the ecotourism industry in the Villarrica/Pucón region by promoting Mapuche agro-gastronomy.

Following creation of the label, the group initiated a self-certification process similar to a participatory guarantee scheme (PGS), which was compatible with its sociopolitical culture of resisting external domination – even if only in the form of judging the quality of its food. Since 2010, Wemapu has invested in marketing infrastructure in order to improve the sales of its products. Specifically, it has built a processing plant that can aggregate the various products, and has also opened a shop in the local tourist market where farmers sell their products directly to consumers. One of the Wemapu leaders explained that they are currently in an expansion phase as their products are starting to reach a wider variety of customers, not just the Mapuche farmers who are the main consumers, but also conscientious consumers who are organizing themselves to purchase directly from Wemapu. This increased demand has enabled Wemapu to invest in upgrading its processing and sales capacity in order to maintain control over its food system.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

The Mapuche promote agro-ecological practices by combining new methods that they have learned through formal training with traditional teaching. Wemapu defines its agricultural model as "comprehensive food production units" based on family farms. Until the 1970s, the main model for agro-ecological production was a subsistence agriculture model, greatly influenced by the state's agricultural modernization programme. Most of the traditional Mapuche agricultural practices had been lost through subsequent training programmes in high input, industrial farming methods. As one producer noted: "before, we were destroying our land". With the creation of CKK, the Mapuche began to reclaim their traditional agricultural practices as part of a general process of reappropriation of their culture (such as language, social traditions and food). For example, each community has a cultural centre that offers language classes, and a local radio station includes daily Mapuche vocabulary and spiritual guidance.

In the 1990s, through a programme with Temuco Catholic University, the Mapuche in Villarrica began to learn organic and ecological farming methods, which merged well with the four principles of Mapuche culinary and food traditions.

1. ***Nature and ecosystems are living elements***. This animist principle emphasizes that there is a material and spiritual element to the interdependent relationships between the Mapuche people and nature. There are natural forces that temper human behaviour and generate reciprocal relationships and respect for all living things. This principle guides agricultural practices that try not to kill nature, but to promote beneficial interactions among plants, animals, insects and humans.
2. ***Food and health are intertwined and constitute the quality of life*** [*Küme mongen*]. This principle guides both cultivation and eating practices, as food is considered to be medicine for the body. Eating well is associated with production practices that lead to good health, particularly in the use of diversified plants and seeds that provide different flavours and serve medicinal purposes.
3. ***Food is tied to life and sociocultural identity***. Food is seen as constituting a large part of the sociocultural heritage and defines many Mapuche rituals and ceremonies. At the same time, food is part of daily life and the daily habits of slow cooking that bring healthy and tasty food for the satisfaction, well-being and health of the people who consume it. This focus on traditions and flavour translate into equilibrated agricultural practices that protect the native varieties (beans, quinoa and *Arauncanía* chicken) used by the local population.
4. ***Food production and consumption are connected through nature's vital cycles and respective seasons***. Seasonality is fundamental and is respected in both traditional culinary dishes and in cultivation practices. The Mapuche diet has dishes that are eaten during the rainy season, during the dry season, during plenty and during scarcity.

The dishes include food from the garden and the fields (tomatoes, peas, garlic, onions, potatoes, quinoa), from the diverse livestock (poultry, lamb, rabbit), and wild collected food from the forests (fruits, nuts, mushrooms), but respects seasonality; farmers do not use technology that changes this natural seasonality.

Thanks to the diverse ecosystems inhabited by the Mapuche, they have been able to cultivate a wide range of produce. Thus, while families maintain a diverse production (vegetables, beans, fruit, eggs, maize, etc.), the product with the greatest market potential is quinoa. Mapuche quinoa is unique in being the southernmost variety found in South America that can grow in cold, lowland climates, and that has a strong nutritional profile. With increased production of quinoa, Wemapu members began a transition from subsistence agriculture towards commercial farming. In this case study, 14 of the 16 farm units are now regularly selling their surplus produce on the market.

IS THERE AN ENABLING ENVIRONMENT?

As a member country of the Organisation for Economic Co-operation and Development (OECD), Chile has built a robust institutional structure of laws that have progressively increased the rights of the Mapuche to practise agriculture and market their products.

- The right to own and protect land is important in the land reform of the country. Specifically, the 1980 Constitution (CPR), Article 19, No. 24 provides for these rights.
- The ability to establish themselves and run as a cooperative is protected under the General Cooperatives Law No. 19.832, published 6 January 2016, which replaced the prior Cooperatives Act No. 20190, originally passed in 2003.
- The Indigenous and Tribal Peoples Convention of the International Labour Organization (ILO) (169) was ratified by Chile on 15 September 2008, and entered into force the following year. This convention gives indigenous peoples full political rights. In 1993, Law No. 19.253 was created to protect, stimulate and develop indigenous peoples. This law created the National Corporation for Indigenous Development (CONADI), which maintains a land registry of individual and collective land titles. The law also created a Land and Water Fund that subsidizes indigenous communities in order to acquire new land if the current allocations are insufficient for the population; finance the resolution of land conflicts that concern indigenous lands; finance the creation, regulation or purchase of water rights; and eventual creation of a fund to handle the transfer of state land into indigenous land. Through implementation of this mechanism, the Mapuche began to regain individual and community rights to their ancestral land.
- Law No. 20.089 of December 2007 created a national certification system for organic products. This law restricts the use of the words "organic" and equivalent words, as well as the use of the national organic seal, to certified producers but specifies that "alternative certification systems" can be used for direct sales only by small family farmers, peasants and indigenous people. Certain requirements are defined for the systems such as the maintenance of an internal control system and the submission of an annual report of their activities to the Supervisory Body. They are supervised by the Agriculture and Livestock Service (Articles 3, 25, 26, 27 and 92). Law No. 20.838 of 30 May 2015 amends this to allow ecological (small-scale, family, peasant and indigenous) farmers who are actively organized with their own organizational processes and social control to commercialize their organic products at *any point of sale*. These groups can have their own alternative certification systems once they can ensure product traceability and free access to their production or processing premises by consumers and the inspection body.
- Law No. 19.886 of July 2003, Basic Law on Administrative Contracts for the Supply and Provision of Services, allowed CKK to register with the national public procurement (and e-procurement) scheme in March 2007.
- The consolidated text of Law No. 19.039 (originally 1991, and revised in 2012) incorporates all the amendments up to "Law No. 20.569 amending Law No. 19.039 for Improvement and Standardization of the Application Process for Trademarks and Patents". This law enabled the Community of Small Farmers of the Kom Kelluhayin Corporation [*Unión Comunal De Pequeños Agricultores Corporación Kom Kelluhayin*] to register the brand name Kom Kelluhayin on 29 November 2012 for use in advertising and management.

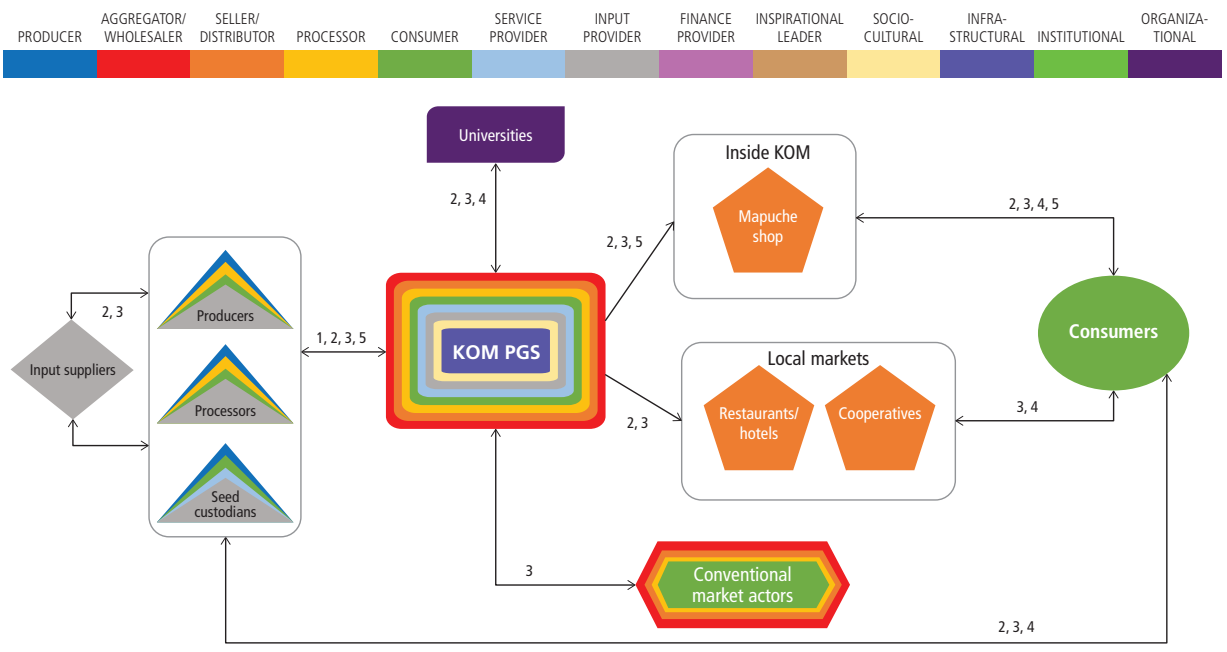
HOW IS BUSINESS CARRIED OUT?

Wemapu brings together Mapuche families and works with them to improve consumer access to produce through the creation of market channels and the marketing of products. At the same time, it works to preserve Mapuche gastronomy, cultural exchanges, traditional knowledge and cultural traditions. Wemapu's small set-up consists of a Board of six people who coordinate the technical services of the initiative in the different municipalities and villages. Twenty-five producer families participate in the initiative in Villarrica and are all small farm families that produce and process diverse products. Some of these are seed custodians or nodal farmers (Figure 1). Two Wemapu farmers from two different families manage the sales each day on a rotating basis at the Mapuche shop in Villarrica. In this way, Wemapu gives farmers the chance to participate in marketing activities. Restaurants and hotels in Villarrica and Pucón are also important actors in the initiative, not only because they are a direct market channel through which to sell products but also because they collaborate in revitalizing Mapuche identity through food and traditional dishes and because they are an important place for consumers to taste Mapuche products and learn about the cooperative. This initiative is 80 percent supported by public funding and 20 percent by collective capital from Wemapu members. The funding helps pay for common assets such as a truck, building the processing plant and creating meeting spaces. The shop expenses are paid for by collective capital.

Wemapu store

Source: Loconto, 2015.

FIGURE 1
Actors in the CKK initiative



Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Source: authors' elaboration.

Wemapu's business model has the following characteristics.

1. ***Community embeddedness.*** The constitution and legalization of CKK as an NGO and the creation and promotion of the Mapuche ethical label at regional level, enabling product differentiation, are the result of a collective effort of all the communities and families involved in the initiative. This collective effort, led by village elders and active youth, focused on rebuilding a number of core values in the community though the initiative. These were, specifically, social recognition of the linkages between agro-ecology and the traditional agrifood culture; and territorial reconstruction and collective engagement by producer families to achieve community (and ecosystem) equilibrium and harmony. Promoting the diversification of products and food from the community was a fundamental aspect of this approach and the transgenerational dialogue between children/youth and the elder generations was an essential way for the community to embed its activities. The territorial reconstruction promoted by the Mapuche begins within each home and is spread among its members, especially youth, by listening, watching, talking and producing agro-ecological products. The initiative recognizes the need for all family members to be involved in order to achieve its objectives. The Mapuche principles, creation of the ethical label and consolidation of Wemapu have integrated agro-ecological production into a local food system that, from the beginning, meets community needs, encourages solidarity, sociability and collective work, and has resulted in strengthened social ties.
2. ***Oral agreements, not written contracts.*** Wemapu works through interpersonal trust among its members and advocates the implementation of informal commitments. Oral agreements are made between producers and intermediaries, but have been formalized with some hotels and restaurants through the joint project funded by FIA. Prices, quantity and quality of products are established during assembly meetings with the Board and in negotiating with producers. Oral agreements allow producers and consumers to negotiate and reformulate the quality/price ratios for the products they trade.
3. ***Inclusivity.*** There are no limitations as to who can participate in the initiative. Wemapu is open to all those who are aware of territorial reconstruction, respect nature and live together in equilibrium and harmony. Wemapu's inclusivity is in its strict criteria for agro-ecological production – if people are not interested in agro-ecology, they cannot participate. Children and young people are encouraged to participate in the initiative and to learn more about their culture and traditions. Women are important and are becoming more and more involved in production and marketing activities, and in their objective to revive culinary Mapuche dishes in their role as experts in traditional cookery ["*maestras de cocina traditional*"].
4. ***Balanced efficiency.*** More than economic efficiency, Wemapu members define efficiency according to the belief that all aspects of the world generate balance. Thus, everything that can be implemented and brings benefits to all aspects of life must be balanced. For example, it is important to improve product sales but this must be done according to the agro-ecological principles of harmony and at nature's pace, which helps to improve and promote the initiative's objectives.
5. ***Cultural, environmental and social identity.*** Wemapu has a holistic vision of production. This vision includes the diversification of production in order to improve incomes but also to protect and conserve the environment. Members are conscious that they are part of the Earth, so they have the principle of not destroying the land and soils through the use of chemicals. The Mapuche recognize the need to conserve their community identity, which comes from the meaning of the word *mapuche*: son of the Earth.
6. ***Ethical label and trust to ensure quality.*** CKK, at regional level, carries out informal social control as a private verification system to ensure agro-ecological, traditional and ethical practices. This verification system, similar to a PGS where self-regulation and social control are the principal mechanisms, enables producers to use the Kom Kelluhayin ethical quality label (Figure 2). This social control consists of a review committee comprised of farmers because: (i) they are knowledgeable about natural/agro-ecological production; (ii) they are seed custodians (i.e. nodal farmers); and (iii) they are knowledgeable about Mapuche cosmology/culture. In recent years, the original group has expanded to include

consumers in these committees. Because of the strong tradition of linking food preparation directly to growing techniques, and because most of them are farm family members, Mapuche cooks [*cocineras Mapuche*] were the first "consumers" to participate in the review committees, and remain active members in controlling production practices. CKK conducts its social control regularly, but there is an official yearly visit that releases the certificate and use of the label for one year. This visit is paid to fields and farm facilities and discussions take place about farm documents. Particular attention is paid to agro-ecological practices and the "cleanliness" of products. The ethical label reflects the ethical engagement of the community in delivering high-quality products to markets. The image on the CKK label is the ancestral Mapuche family linked to the environment and nature, and represented by its sacred symbols.

7. ***Strong environmental and social sustainability***. Wemapu members perceive the initiative to be strong in environmental, cultural, economic and cultural performance (Figure 3). Consumers perceived the initiative to be strongest in terms of its environmental and social performance. As consumers are important in achieving visibility and recognition, the initiative has worked directly with them to build up awareness through cookery courses, the Mapuche shop and various events such as ecofairs.

FIGURE 2
CKK ethical quality label

Source: CKK.

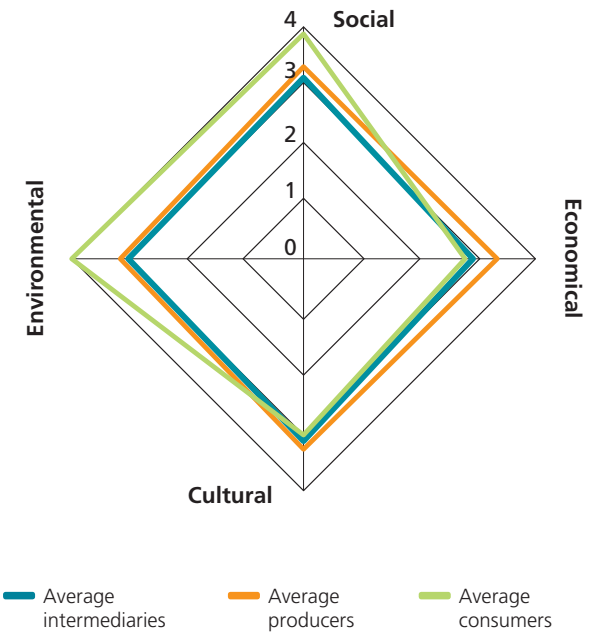
HOW ARE MARKETS CREATED?

Wemapu has developed its network around markets both for gaining access to inputs and for marketing its fresh and processed products.

Where do production inputs come from?

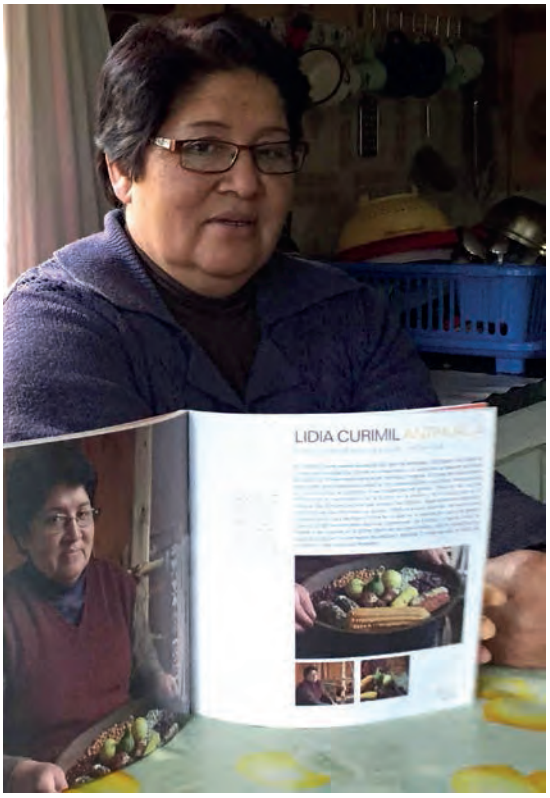
Since the agro-ecological transformation of their farming practices, Mapuche producers' principal source of inputs comes from their own production – compost, seeds and natural biopesticides are produced by the farmers themselves. They use family labour, and inputs such as seeds are exchanged among farmers. Producing their own inputs gives farmers particular benefits – they are knowledgeable about quality and productivity; save money because they use what is available on farm (such as manure); reduce waste; produce effectively; ensure the native quality of seeds; reduce production costs; and have better incomes. For specific indigenous products, such as beans, quinoa and Araucanía hens, seed custodians produce seeds in order to exchange them for other products, and also for sale. Producers face various challenges in the production of inputs, particularly when they are unable to produce the quantity they need to meet consumer and family demand, and when they have difficulties in accessing other services such as clean water.

FIGURE 3
Perception of sustainability (n=8)



Source: authors' elaboration, based on interviews.

Seed custodian



Source: Loconto, 2015.

Where do products go?

The producers interviewed (four) allocated on average 71 percent of their production to own consumption and 29 percent to agro-ecological market channels. The principal market channel is the Mapuche store where producers sell products such as quinoa, local beans (*porotos*), jam, honey, medicinal herbs and seeds. Selling products in the store gives producers benefits, including recognition of products as organic and clean; direct payment; promotion of agro-ecological culture and production; recognition from consumers, reflected in the increased numbers of customers visiting the store; access to the tourist market in summer; and better prices than other market channels. Direct sales are the most common market channel – producers sell on farm or make deliveries to customers and neighbours; they reduce transportation costs; have the chance to interchange products and knowledge; can be in direct contact with consumers; and work in the valorization of their own products within the community.

Wemapu producers also access a wide range of market channels (Table 1). Restaurants and hotels that buy Mapuche products are not entirely "agro-ecological" market channels: on average 15 percent of products come from agro-ecological sources (Wemapu farmers) and 85 percent from conventional markets. Lack of sufficient local agro-ecological production is the principal challenge for these actors in accessing agro-ecological products and inputs.

TABLE 1
Where can Mapuche products be found?

Market channel	
Open-air markets	100% agro-ecological and organic (71% own consumption)
Traders	
Restaurants/hotels	
Direct sales	
Farmers' markets/ ecofairs	
Cooperatives	
Mapuche speciality shop	
Exchange	
Own consumption	

Source: authors' elaboration, based on interviews.

Mapuche *cocinera* eatery

Source: Loconto, 2015.

What marketing strategies are used?

The Wemapu store is an important market channel for agro-ecological products, especially when producers have low production and cannot supply their less preferred channels. The store offers a safe market where agro-ecological products can always be found. It is run by contributions from producer members both in terms of monetary contributions and staff time. The shop applies special prices when customers frequently buy products. In order to get more access to markets, members are preparing a project to access public procurement opportunities and the public school feeding programme, and they are also working on improving the presentation of their products (by creating standard packaging and labels) and in investing in the processing plant to diversify their production. Restaurants and hotels buy agro-ecological products when they are available and when producers have a greater diversity of products. To meet demand, they will opt for purchasing more local products. The Mapuche *cocineras*, who offer traditional Mapuche dishes in less formal eateries, are a preferred channel for their own families' production and also purchase most of what they need from other Wemapu members of

Challenges or opportunities for market access?

The principal challenge for intermediaries is the low availability of agro-ecological and local products. Producers claimed that they had little difficulty in accessing enough agro-ecological products because they always produce first for their families and then for sale, which facilitates their market access and production. However, one of the producers complained about poor communication among Wemapu members and with buyers in some of the market channels. One of the consumers interviewed said that is difficult to find "agro-ecological" or "ecological" products in conventional markets, while another said that trust in agro-ecological quality and reliable delivery is always a challenge when purchasing locally.

HOW IS VALUE CREATED?

What are the characteristics that give value?

Organoleptic and agro-ecological attributes were important in qualifying the agro-ecological products required by intermediaries and consumers. Flavour was the most important quality, as illustrated by the dominance of responses of "good taste" and "delicious" among respondents (eight out of 13) (Figure 4).

FIGURE 4
Characteristics of agro-ecological products

Source: authors' elaboration.

Mapuche *cocinera* eatery

Source: Loconto, 2015.

Other characteristics required of products were that they be: "healthy", "traditional", "hand produced", "locally produced" and "agro-ecological". This means that consumers recognize "ecological" attributes and value them as qualities that can be sought in market products.

Creating shared value?

Personal contact is important in communicating and transmitting quality among actors (100 percent of respondents; Figure 5). Producers and intermediaries such as restaurants, sellers and teachers use personal contact with consumers and other actors to explain how a product should be consumed, and how, where and by whom it is produced. This contact takes place principally during interchanges, sales, cooking courses and on-farm visits. Actors use word of mouth to broadcast product qualities in the community, and among consumers and tourists. The visual and physical characteristics of a product indicate its quality; these are principally transmitted at the time of purchase and consumption when consumers are in direct contact and can appreciate and taste the quality of the product. When actors are in direct contact, they are able to discuss and provide feedback about quality – producers explain how the product is made and why it has specific characteristics and consumers talk about their preferences and make suggestions. The Mapuche initiative also uses e-mails, the Internet, radio, television, cookery courses and tasting sessions to communicate the quality of its products.

The prices of the initiative are established during assemblies of the Board (two assemblies per year, one in spring and the other in winter), based on a calculation of the production costs of each family, the various challenges they had in the last production period and how the family is valorizing its products – its knowledge of products, origin and the production process. Hotels, restaurants and cooking courses also base their prices on the origin and specialities of the dishes (whether they are standard or special, or prepared in a particular way) and compare prices with the prices of similar products in the supermarket. These actors may negotiate (discuss) prices with producers if there has been an excessive price increase but, in general, prices are not negotiated since they are similar to prices in other markets.

The Mapuche store sets its prices by also taking into account expenses such as rent, electricity, water and transport. Most price-setting mechanisms are perceived to be fair since they are adapted to specific situations, are flexible and can be established among producers, intermediaries and consumers. Direct contact is not the only way to discuss and learn about the prices of Mapuche products – in the Mapuche store, each product has a label where the price is visible; restaurants and hotels use the menu to show their prices; and, during the assemblies, a list of prices is established and shared via the Internet with members, producers and consumers.

FIGURE 5
How is quality communicated?

Source: authors' elaboration.

All actors found prices to be fair in the market channels where they access agro-ecological products. Direct sales between producers and consumers, and sales in hotels and restaurants and in the Mapuche store are considered to represent the fairest prices. It is clear that through these market channels, where there is a great deal of direct contact among producers, intermediaries and consumers, Mapuche quality is valued. Prices in these channels take into account the knowledge and labour of producers, the agro-ecological quality of products and production costs (which are sometimes high). However, as some producers explained, prices to date have been set too low (e.g. conventional quinoa: US$9–12; Mapuche quinoa: US$7.45),[2] but this is because these products are only now entering the market. Nevertheless, prices should be higher with regard to the healthy characteristics and quality of the products.

SCALING UP, WHERE TO NEXT?

Various changes have taken place since the Mapuche initiative began in 2010.

1. ***More knowledge***. Wemapu has promoted knowledge as one of the ways to achieve its objectives. Producers, processors and

[2] US$1= 667 Chilean pesos, as of 10 May 2016.

consumers are provided with better advice and continuous training in business management and commercialization of products, new agro-ecological practices and ethical values. Everyone in the community participates in training, especially women, young people and children. Self-learning is also promoted, which has improved knowledge within households, and an appropriation of the initiative by the community has been achieved.

2. ***Ethical strengthening.*** Through the initiative, members feel that they have recovered their self-esteem, they have regained their traditions and they are more proud of themselves, their work and their products. Producers and consumers have become more conscious about agro-ecological and sociocultural issues and there has been a shift in attitudes among members not only about the importance of producing and consuming local and healthy food, but also in supporting the Mapuche community in order to save its traditional knowledge and valorize what it represents.
3. ***More actors integrated.*** The ethical promotion of the initiative has motivated the participation of more families in the initiative – from five families in 2010 to 16 families in 2015 – and the participation of women. The number of consumers buying products has tripled. These increases have been the result of the approach to expand production and the diversity of products. The Wemapu store reports a growing consumer interest in recognition of its good-quality products.
4. ***Better infrastructure.*** The initiative has promoted professionalism and modernization in the production and processing of its products. The most important innovation has been the construction of a fruit processing plant and investment in better technologies, such as milling machines, to process quinoa. Appropriate technologies and improved practices have been important in achieving the current good-quality products and have allowed producers to diversify into processing goods such as fruit jams and quinoa products, and into packaging.
5. ***Better logistics.*** There has been progress in distribution management and logistics. Better presentation of products with practical and attractive packaging; communication through media such as the Internet and cell phones; a more professional supply system of products to the store (keeping inventories up to date); and promoting the new label have all been accomplished by incorporating suggestions from members, intermediaries and consumers into producers' efforts.
6. ***Better quality of food.*** The shift from conventional to agro-ecological production practices has not made changes in the traditional food that is prepared and eaten, but it has made a difference in the quality of products traded. According to all respondents, they are perceived as being healthier, cleaner and more diverse. Producers and consumers also claim that they are tastier and healthier.

These changes have strengthened the Wemapu initiative by giving it financial and productive autonomy and promoting the value of the Mapuche community. The changes have contributed to the creation of value for all, based on the production practices which, from the use of native seeds through to the harvest using traditional methods, involve tradition, respect and the application of ethical principles that enable producers to care for natural resources. To attain the current scale, Wemapu members have worked together to achieve community objectives, rather than individual gain, using collaborative production and collective processing and marketing. They have faced many challenges, but have adopted the attitude of learning from past mistakes to improve in the future. For the Wemapu group, the perfect scale of the initiative is the result of communal comprehension and appropriation of agro-ecological concepts. Its wish would be for world production to be agro-ecological. This would reduce pollution, strengthen economies and improve local environments worldwide. The group highlights the importance of the work of people in its local producer organizations to spread the concept of agro-ecology through practical efforts.

To scale up the initiative, Mapuche members are working in two interdependent ways. First, they are strengthening their internal objectives, consolidating trust in their own production systems, involving more young people and families, and engaging in the use of good production practices to improve continuously the quality and quantity of their production. Second, they are improving their marketing strategies and creating new market channels for their initiative, so as to commercialize more products and to reach and engage with more consumers.

To achieve this, Wemapu members maintain that they need the following types of support:

1. Public policies and programmes, focused on critical points and with enough funds to give the projects both momentum and continuity. The processes of creation, development and consolidation of this kind of project take time before they can achieve autonomy and reach their socio-economic, cultural and environmental objectives.
2. Development of better technologies, not through industrial processes, but in mechanizing certain aspects that would facilitate the agro-artisanal processes and improve the quality of products.
3. Information management and use of the Internet and other social media to raise consumer awareness.
4. Support in the labelling of products (brand development and certification scheme).
5. Creation of new market channels, such as farmers' markets, in the surrounding areas, which would help them to stimulate the production and sale of a larger quantity of products by a larger number of producers.

Shared Harvest Farm[1], Beijing, China

INTRODUCING THE INITIATIVE

The urbanization process in China has created an unbalanced distribution of rural and urban populations. A large number of migrants have left their villages and abandoned their agricultural lands, since farming is both risky and difficult compared with the regular salaries of factory jobs. Moreover, in recent years, farming has been negatively affected by inclement weather, unpredictable harvests and natural disasters. A wide range of social problems have resulted, and there are few young people participating in agricultural production. The rural exodus has led to the decline of rural areas in China. This has caused further problems because farmers working on the land overuse fertilizers and pesticides in an attempt to increase yields, bringing about a series of environmental and food safety crises in the country.

In May 2012, a group of young people in Mufang village, eastern Beijing who were aware of these challenges created a Chinese social enterprise called Shared Harvest Farm.[2] This farm, with a surface area of 5 ha, began with the idea of solving the social needs of urban dwellers for safer food and reconstructing rural China through the reconnection of young people to agriculture through sustainable practices. It adopts the Community Supported Agriculture (CSA) model to cooperate with local farmers in Beijing in local, seasonal and organic production of fruit, vegetables and other food products.

The CSA model of Shared Harvest encourages customers in Beijing to pay subscriptions in advance to help protect farmers from instability and the risks of agricultural production, and promotes the growth of a new generation of farmers, especially young people, who choose to stay on

[1] This factsheet was written by Alejandra Jimenez and Xueshi Li, based on data collected by Xueshi Li in 2015. A total of 18 interviews were conducted, including interviews with four producers, three intermediaries and 11 consumers.

[2] http://sharedharvest.cn

Key facts

Country: China
Region: Mufang village, eastern Beijing
Year initiative created: 2012
Producers: 5 farms (17 employees)
Consumers: 500 CSA members
Different types of actors in the initiative: 4 (producers, consumers, researchers, restaurants)
Average number of links in the supply chain: 0.6
Core products: fruit (peaches) and vegetables (mushrooms), rice
Geographic market size: local and regional
Number of market channels: 8
Type of market system: sociocultural market network
Definition of agro-ecology:

Challenge for market access: lack of sufficient market channels in the country, consumer trust linked to fraudulent labelling in the market and lack of internal family member support for purchasing agro-ecological food
Main lesson: building trust between producers and consumers is important for reducing food safety concerns
Opportunity for scaling up: innovation incubators for a network of young entrepreneurs and consumers interested in healthy products

their land rather than migrating to the cities. In this way, the initiative is confronting political, socio-economic and environmental challenges. Shared Harvest believes that by inviting citizens concerned about food production and consumption to be part of the initiative as members, there is both a connection with the farmers who grow food for them, and with earth and nature.

Through the main principle of "Real Food, Real Farmers, Real Community", the model places an importance on food as a bridge for people to reconnect with the soil and with their healthy bodies, and build up a close and harmonious relationship with nature. As a result, a community is being built around the food production and consumption processes and a strong connection forged between city dwellers and farmers.

At the beginning, Shared Harvest operated and cooperated with local farmers at a farm located in Tongzhou district and, in 2013, thanks to its success and in order to meet growing market needs, the initiative scaled up to operate a second farm in Shunyi district. It is from here that it is developing its production scale. Meanwhile, it has also extended its products to other market channels – from serving CSA members exclusively, it now sells to farmers' markets, local restaurants, schools and other organizations interested in direct purchase.

TABLE 1
Sustainability principles

1.	Zero pesticides
2.	Zero fertilizers
3.	Zero antibiotics
4.	No genetically modified organisms (GMOs)
5.	Environmental care and conservation
6.	Physical and biological pest control
7.	Diversity of crops
8.	Water, soil and air protection
9.	Biodiversity conservation
10.	Management of sustainable production systems
11.	Community embeddedness
12.	Food safety
13.	Fairtrade
14.	Trust
15.	Solidarity between citizens and farmers

Source: Shared Harvest.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

In accordance with the agro-ecological principles of food safety and healthy food, Shared Harvest Farm has a key principle: "No pesticides, no fertilizers and no GMOs". In brief, it defines agro-ecological food as food grown under natural conditions. Producers and consumers define this type of agriculture mainly as: local agriculture practised and grown by local farmers who take an active role in the production process. At the core of this agriculture is refusal of chemical inputs in a production system where environmental factors such as water and soil qualities are considered critical for growing agro-ecological food and for achieving sustainable agrifood systems (Table 1).

Shared Harvest Farm is active in promoting the sustainable agricultural movement at national and international levels, a role that has been important in extending its agro-ecological principles and practices:

- through CSA members who share information with other people and communities;
- acting as a field-testing station for university food safety studies;
- participation in seminars and conferences funded by local government;
- being part of the international community through the URGENCI CSA network;
- exchanging information and ideas with international community visitors during visits to the Shared Harvest Farm;
- through the promotion of CSA membership;
- through mainstream and social media.

To encourage membership in the community, the Shared Harvest initiative promotes member benefits.

- Delivery of a box of fresh, seasonal, local and organic food each week.
- Certainty of food origin.
- Direct contact with farmers who grow the food.
- Participation in Farm Days, educational programmes and other events.
- Knowledge of agro-ecological practices regarding the daily food consumed.

"Real Food,
Real Farmers,
Real Community"

Shared Harvest principle.

- Family education in the value of real food, the environment and communities.
- Good quality of products and the pleasure of cooking and sharing healthy food with family and friends.

Shared Harvest Farm in Shunyi

Source: X. Li, 2015.

Shared Harvest Farm in Shunyi

Source: Shared Harvest, 2016.

IS THERE AN ENABLING ENVIRONMENT?

- In 1994, the State Council approved a report on accelerating the development of ecological agriculture, thereby calling on all localities to run ecological stations actively on an experimental basis.
- In 1997, during a session of its 15th Central Committee, the Communist Party of China (CPC), proposed a motion to "vigorously develop ecological agriculture", which was included in the Plan for National Economic and Social Development of the People's Republic of China.
- In 2008, during the Third Plenary Session of the 17th Central Committee, in adopting a "decision on major issues concerning rural reform and development", it was put forward that "resource-saving and environmentally friendly agricultural production system basic formation" be one of the agricultural and rural reform and development objectives and tasks up to 2020. These objectives included the "development of a conservation-oriented agriculture, circular agriculture, ecological agriculture and strengthening environmental protection".
- The Chinese Government issued a series of central documents.
  - In 2010, Central Document No. 1 announced "a number of opinions of the CPC Central Committee and the State Council on efforts to increase urban and rural development efforts to further consolidate the foundation of agriculture in rural development".
  - In 2012, Central Document No. 1 stated that "opinions on accelerating agricultural technological innovation have continued to improve the supply of agricultural products" to promote clean agriculture production and guide farmers in the rational use of fertilizers and pesticides, strengthen rural biogas project construction, accelerate pollution and rural sewage control, waste disposal, and improve the rural living environment.
  - In 2014, Central Document No. 1, "a number of opinions on the deepening of rural reform and accelerating the modernization of agriculture" proposed the establishment of long-term mechanisms for the sustainable development of agriculture, promotion of ecofriendly agricultural development and the vigorous promotion

of the comprehensive utilization of straw, to accelerate the implementation of subsidy programmes to enhance soil organic matter, and support the implementation of prevention and control of pests and diseases, and harmless disposal of dead livestock.

- In 2014, the Central Rural Work Conference proposed building up resource-saving and environmentally friendly agriculture through comprehensive measures to reduce the excessive use of agricultural inputs, phase out excess resources and environmentally destructive overproduction, put agricultural waste to use, promote damaged ecological restoration of governance, strengthen the quality of farmland, and strictly protect arable land and water resources.
- In 2014, during the National Rural Work Conference on national agricultural resources and the environment, the Vice Minister of Agriculture proposed accelerating the innovation and development of modern ecological agriculture to promote balanced regional development, through the promotion of optimal integration, good utilization of resources and ecological protection among industries. Moreover, it was announced that the modernization of ecological agriculture should include:
  - implementation of projects to promote the standardization of modern agro-ecology, including ecological standardization of agricultural production processes and product quality to encourage agro-ecological enterprises and the adoption of universal standardized production technologies;
  - strengthen the agro-ecological social services, social service work and the role of markets in the modernization of agro-ecology.
- In 2015, the Ministry of Agriculture continued to promote the importance of the modern agro-ecological cycle, the transformation of agricultural development, food security bonded to agricultural quality and safety requirements, and initiatives that encourage building up an ecological society.
- In the suburban areas of Beijing where Shared Harvest is located, the county government is supporting agro-ecology with more efforts than those of other areas because of the food safety concerns of citizens in the capital. Since the case study was conducted, a new project has been established with local government support – a core consumer group participates in organization governance.
- The China Green Food Development Centre (CGFDC) at the Ministry of Agriculture and the Organic Food Development Centre (OFDC) at the State Environmental Protection Agency are the main organic certification agencies. CGFDC was formally established in 1992 as a subsidiary of the Bureau of State Farms, part of the Ministry of Agriculture. OFDC was established in 1994 by the renaming of the rural ecosystems division of the Nanjing Institute of Environmental Sciences, under the State Environmental Protection Agency. Shared Harvest does not have official ecological or organic certification for its products because the certification fees are too high. In any case, its customers know about it through the network and there is no need for certification.

HOW IS BUSINESS CARRIED OUT?

Shared Harvest Farm is a social enterprise dedicated to the production, processing, trade and provision of agricultural services to the community of eastern Beijing. Through the CSA model, based on trust and familiarity between farms and their customers, Shared Harvest facilitates linkages among producers, consumers and traders. Shared Harvest has 500 CSA member consumers and 17 employees, including different farm members working as business partners in the initiative (producers, food services providers and traders). The actors involved in production and processing are: Shared Harvest Farm in Shunyi district, which has a small scale of operation and where farmers hire seasonal labourers to work on the farm; Shared Harvest farms in Tongzhou, another small-scale operation, where there are about six farmers, five of whom hire seasonal labourers; a rice farm in

FIGURE 1
Shared Harvest logo

分享收获
SHARED HARVEST

Source: Shared Harvest, 2016.

Heilongjiang province managed by one leading farmer of the rice cooperative (who also hires seasonal labourers) and another employee sent by Shared Harvest; a peach farm in Beijing composed of seven working family members; and a small-scale mushroom producer. Actors in restaurants and floating farmers' markets are also important as food services providers and in marketing.

Quality selection on a peach farm

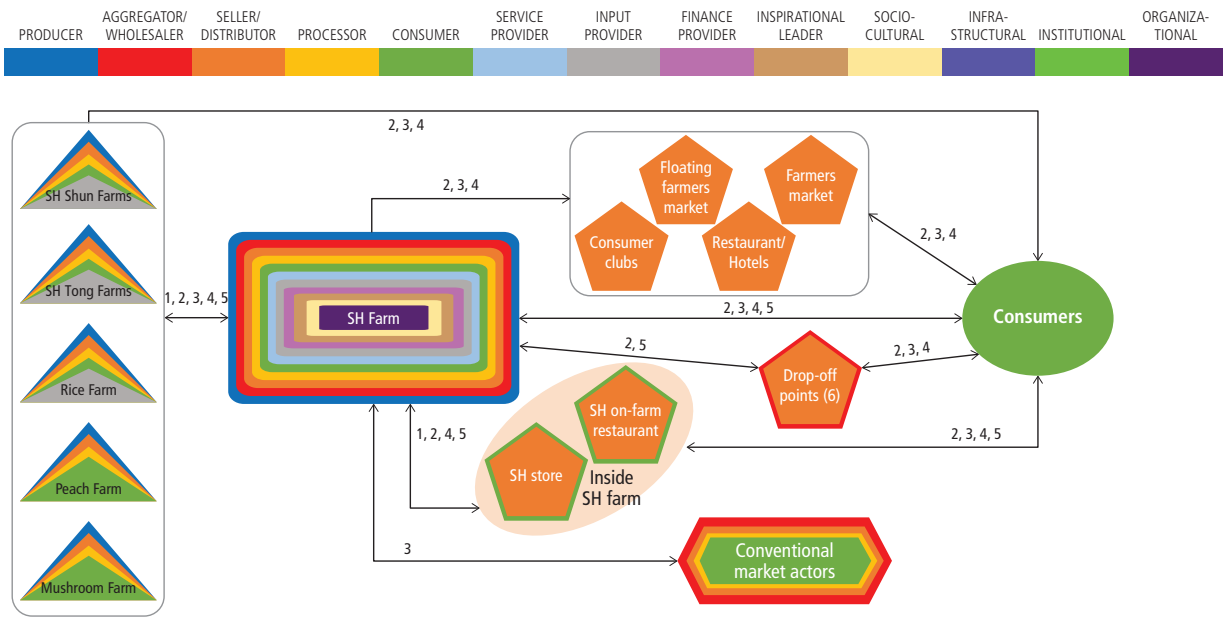
Source: X. Li, 2015.

The initiative is financially autonomous and managed through collective funding by its CSA members. However, other institutions also participate in division of the initiative's revenue. For example, the Department of Sociology at Tsinghua University gives the farm a small amount of funding to serve as a station for food safety studies; visitors from the international community frequently come to exchange information and ideas and, in cooperation with the Shunyi district government, both researchers and conferences contribute to the farm.

The business model has the following characteristics.

1. ***Community embeddedness.*** The CSA model followed by the initiative encourages sociability, solidarity, trust, respect and familiarity since it aims to integrate both families and community into sustainable food production and consumption practices. Before starting out, the Shared Harvest Farm initiative learned about its local context and took into account the unbalanced distribution of rural and urban demographics, characterized by a lack of young people participating in the agricultural sector. This context led to the design of an agro-ecological food system that responds

FIGURE 2
Shared Harvest Farm actors



Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Note: SH = Shared Harvest.
Source: authors' elaboration.

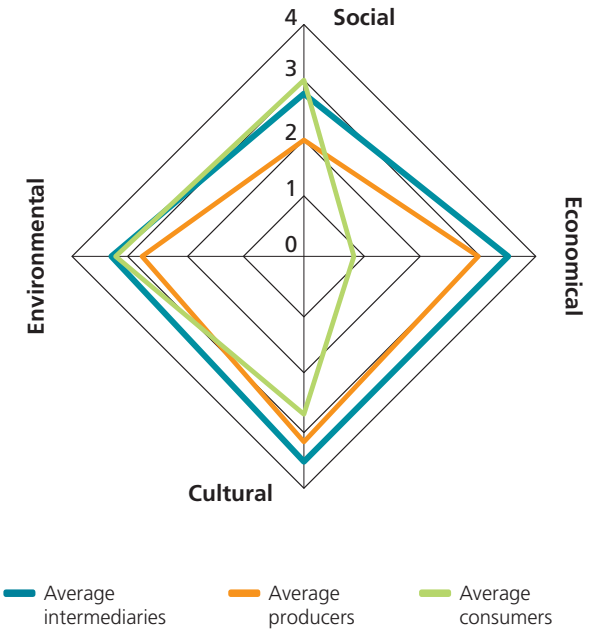
to the specific needs of young people and the community in general to reduce the risks and challenges of agriculture and increase guaranteed incomes. Shared Harvest Farm also encourages people from Beijing who are concerned about sustainable food production and consumption to take part in the initiative as members; to connect consumers and the community to farmers who grow their food; and to build a community around the food production and consumption processes.

2. ***Financial autonomy.*** Through its collective capital, the initiative is financially autonomous resulting from crowdfunding of the CSA members. However, it is still supported by small amounts of funding from universities and the local government.
3. ***Written agreements.*** Shared Harvest Farm bases its business philosophy on the CSA model and on its principles of trust and familiarity between farmers and customers. These principles enable engagement between producers and processors. The agreements principally set out the prepaid monthly amount of vegetables (or products) that producers need to provide, quality terms and the price per kg/vegetable.
4. ***Informal quality management system.*** Quality standards depend on the experience of employees in the selection and classification of products. Each day, Shared Harvest employees package the products for the next day, making a visual and manual quality selection. Their experience enables them to select the appropriate qualities.
5. ***Informal agro-ecological verification system.*** This verification system is based on informal social control and does not use labelling. When required, the initiative sends staff or technicians on field visits to farms to work with producers. On-farm visits by consumers and universities are also a way of sharing information and a mechanism for quality verification. The ecological quality of products can thus be reported back to the initiative. Nevertheless, trust and reputation are the main values promoted for ensuring agro-ecological quality.
6. ***Facilitating entrepreneurship.*** Shared Harvest Farm has functioned as a project incubator for the new generation of farmer entrepreneurs. Young entrepreneurs find support in the creation of new businesses with the facilities, tools and assistance provided by the farm. A young mushroom producer, who is an active member, is one of the examples of the initiative in promoting entrepreneurship. He founded his own business by using the utilities and services provided by the farm.
7. ***Inclusivity.*** The CSA approach used by Shared Harvest Farm promotes activity planning with the objective of involving the community in its agro-ecological activities and vision. The initiative involves a wide range of young people who are passionate about sustainable agriculture and work hard to generate local employment opportunities; small and local farmers as business partners; families; and disadvantaged groups such as people from ethnic groups and women with young children. Shared Harvest seeks collaboration with other networks and social groups at national and international levels. It is working constantly to improve the accessibility and visibility of the initiative's vision and its agro-ecological products and processes.
8. ***Overall efficiency***. The efficiency achieved by the initiative has meant stable market channels and sufficient and constant cash flow. This efficiency has been influenced by an increase in the number of members from zero to 500 in three years, the increased number of collaborators, the variety of products sold and participation in national and international networks. These factors have consolidated the initiative as one of the most important CSA farm models in China.
9. ***Strong environmental sustainability***. Shared Harvest members perceive the initiative to be strong principally in terms of its environmental performance (Figure 3). Consumers ranked economic sustainability the lowest, partly because of the little interest they have in participating in governance, finance and decision-making, and a possible lack of trust in the government of the initiative. Intermediaries perceived the initiative to be strong in terms of its cultural and environmental performance. Establishment of the initiative as a network where intermediaries can participate and where the values of reputation and trust are present, has contributed to this perception.

HOW ARE MARKETS CREATED?

Shared Harvest Farm has extended its market channels from serving exclusively CSA members to participating in and supplying farmers' markets, local restaurants, schools and other organizations interested in acquiring its products and services.

FIGURE 3
Perception of sustainability (n=14)



Source: authors' elaboration, based on interviews.

FIGURE 4
Principal benefits of participating in Shared Harvest Farm

- Reliable production
- Long-term cooperation
- Mutual consumer sharing
- Building up reputation
- Stable market channels
- Trustworthy
- Desirable prices
- Safe
- High quality
- Seasonal
- Personal relationships

Source: authors' elaboration, based on interviews.

Where do production inputs come from?

Producers in Beijing have a wide range of agro-ecological input markets where they can find inputs such as seeds, cattle and chicken manure fertilizers, biological pesticides, tools and equipment. The principal input suppliers for farmers are cattle and chicken farms (for manure fertilizers), local town seed stations such as the Wuchang Technology Extension Station (seeds, machines and pesticides), the Beijing Academy of Forestry (seeds) and the China Agricultural University (fertilizers). Producers acquire about 100 percent of their inputs from these places, which provide farmers with benefits including high quality, low prices, certainty about the organic origin of inputs, trust and customer loyalty, short distances and guidance in the use of inputs. However, some producers (three out of four) stated that high-quality seeds and fertilizers are difficult to find in agro-ecological production.

TABLE 2
Where can Shared Harvest Farm products be found?

Market channel	
Open-air markets	10% conventional
Supermarkets	
Farmers' markets/ecofairs	90% agro-ecological
Direct sales	
Box schemes	
Cooperatives	
Restaurants/on-farm restaurants	
Internet sales	
Consumer clubs	
Own consumption	

Source: authors' elaboration, based on interviews.

Where do products go?

The producers involved in Shared Harvest Farm allocate about 3 percent of production to their own consumption, 87 percent to agro-ecological markets and 10 percent on average to conventional market channels. The principal market channels for Shared Harvest products are the 500 CSA members around Beijing city, six drop-off points where about 30 consumers meet each week, on-farm restaurants and floating farmers' markets. Shared Harvest Farm producers access a wide range of market channels (Table 2).

What marketing strategies are used?

According to respondents, the CSA model is considered to be the most suitable mechanism for marketing and consumption. This model matches the sustainable mission of Shared Harvest and is used as a marketing strategy to meet consumer demand for agro-ecological products and services. In deciding to create and build market channels,

accessibility was the main consideration. Market channels requiring little effort are chosen, since producers prefer to devote their energy to the production processes rather than to marketing.

All market channels used by the initiative are built up within social networks where consumers, producers and intermediaries are constantly in communication and where social relationships are built on the basis of trust and friendship. This means that producers and processors do not choose and plan specific marketing strategies for different market channels, but base their sales on personal bonds forged through the social networks encouraged by the initiative.

Consumers of Shared Harvest Farm's products are concerned about sustainable food production and consumption and made the choice to join CSA in order to purchase agro-ecological food. Their decisions were influenced by information from the mass media, blogs, friends' recommendations and comparisons with other farms and initiatives. Most consumers decided to purchase from Shared Harvest when food safety became a serious social problem and when naturally grown food was difficult to find.

Challenges or opportunities for market access?

The principal challenge for market access is that market channels in Beijing where producers can sell and consumers can buy agro-ecological products are few and hard to find. Consumers report having difficulties in knowing whom to trust and where they can confidently purchase products, particularly because there is a problem of fraudulent labelling for organic commodities on the market. This lack of trust in the purported agro-ecological quality of products makes access to markets more fraught. Shared Harvest Farm is also not able to meet consumer demand for all products, such as meat or fish – it does not sell lamb, beef, fish and seafood – and one of the consumers said that there appear to be no market channels to buy these products.

Other challenges in accessing market channels are logistics and transportation; farms are at some distance from consumers and producers, and there may be lack of support among family members. Consumers, particularly those who buy products for their families, argue that there is little family support in their purchasing decisions. Members (particularly housewives) stated that even if they have gradually increased their purchases of agro-ecological products from the initiative, their decisions are not always supported by the other family members. Occasionally, the elders (wives' parents or those of their spouses) oppose the fact that they are buying "ugly vegetables" at outrageous prices while husbands question whether the products have any real difference from conventional goods (they do not see the difference when comparing organic products with conventional ones). Elders in the household may purchase products from the conventional market and, on these occasions, members still consume the conventional products with the rest of the family. In other situations when they are the only decision-makers, they would buy agro-ecological products.

A drop-off point

Source: X. Li, 2015.

HOW IS VALUE CREATED?

What are the characteristics that give value?

Visual attributes were significant in qualifying the agro-ecological products required by intermediaries and consumers in the Shared Harvest Farm initiative. The most important attribute wanted by people interviewed was "taste" (Figure 5). In a focus group session with consumers (eight women), the women said that the taste of agro-ecological products reminded them of the food they consumed in their childhood, when industrial farming had not been introduced into China. Producers and intermediaries noted that customers also wanted large, fresh products with an optimal visual aspect, good taste and smell. Diversity of food was also a characteristic required in agro-ecological markets.

Consumers are particularly aware of qualities related to agro-ecological characteristics. Besides classic physical attributes such as taste and freshness, they look for environmentally friendly products and those with nutritional and food

safety qualities. One consumer group said that the main attributes they look for are food safety and healthiness. Locality (i.e. direct from farms around Beijing), natural products and trust were core attributes sought. This means that consumers recognize "ecological" attributes and value them as qualities that can be found in market products.

Creating shared value?

The agro-ecological qualities recognized by actors are principally communicated during field or on-farm visits (70 percent of respondents; Figure 6). This may also happen with visitors who want to join the initiative. During field visits by universities, government entities, international network visitors or when Shared Harvest Farm staff or technicians visit the farms, there are opportunities to discuss the quality of products. Word of mouth or personal communication is the second most important medium through which quality attributes are shared. Shared Harvest manages a WeChat group, a social networking application to promote the initiative's mission and its agro-ecological practices. Through their personal accounts, members can access deliveries, pictures, qualities and recommendations on agro-ecological products and services, thereby creating knowledge through this important discussion opportunity for formulation and reformulation of agro-ecological quality. It is a medium to express concerns and quality problems, where feedback can be seen by both Shared Harvest and other consumers in the group.

Some consumers (in the focus group) said that the taste of agro-ecological products is the most direct way of recognizing their quality. However, some members argued that it was not easy for them to sense the quality of these products or recognize the difference. As a result, they relied largely on information from the initiative to judge quality. For this reason, trustworthiness is seen by many as a core factor. One of the producers felt that once quality credentials are established, not much additional communication is needed. Others means used by the initiative to share agro-ecological quality are radio broadcasts, product tastings, personal reputation and social media.

Agreements with Shared Harvest Farm are the main way in which producers establish product prices. In general, prices are established as price = cost × 150 percent. However, prices in Beijing Organic Farmers' Market are sometimes taken into account. Consumers and intermediaries learn about the prices of products primarily through WeChat (Figure 7) and also via direct contact (word of mouth). Members may provide feedback on prices but prices are not usually negotiated, mainly because members do not participate in decision-making about setting prices and because

FIGURE 5
Characteristics of agro-ecological products

Source: authors' elaboration.

FIGURE 6
How is quality communicated?

Source: authors' elaboration.

FIGURE 7
WeChat tool used to promote agro-ecological practices

Source: http://sharedharvest.cn

they accept the prices charged by producers within the initiative. Indeed, most actors found the prices of Shared Harvest products to be fair and reasonable. Producers perceive these prices to be fair because they share the core values of the farming approach. These values are proved via the sustainable platforms used to sell the products (which are perceived as a guaranteed way of selling) and because actors trust one another to carry out their responsibilities in production, setting prices and marketing (i.e. there is good management).

For consumers, the high quality of agro-ecological products is an excellent opportunity for personal and family health at a time when food safety is not guaranteed and the public health care system is not altogether trustworthy. Investing in buying healthier products to maintain good health is better than paying medical bills. Despite challenges such as lack of family member support for this new consumption practice and low family incomes, consumers are willing to pay more for agro-ecological products.

SCALING UP, WHERE TO NEXT?

Since 2012, Shared Harvest Farm has undergone a number of important changes, which have strengthened the initiative.

1. ***Geographic spread.*** In 2013, the initiative extended its production to another district. In order to meet growing market demand, a second farm was located in Shunyi district. This second farm has better facilities than the first.
2. ***New products and producers.*** In 2013, besides vegetables and fruit, the initiative started to sell organic rice through a contract with a farmer in Heilongjiang province. Today, the rice has gained reputation in market channels and among consumers.
3. ***Incubator of initiatives.*** The farm has functioned as an incubator for the new generation of entrepreneur farmers. In 2014, a young entrepreneur who grows additive-free mushrooms succeeded in starting his own business using the facilities and assistance provided by Shared Harvest Farm.
4. ***Awareness of food education and continuous education.*** In 2014, an on-farm restaurant called Children of the Earth was set up as an ecological education centre and marked the start of Shared Harvest's activities as a promoter of food education. Furthermore, as part of the international CSA network, Shared Harvest is linked to the international Urgenci community, which provides opportunities to exchange new information and ideas from research visitors.
5. ***Events promotion.*** In 2015, Shared Harvest Farm organized the 6th Urgenci International Symposium and the 7th Chinese National CSA Conference with the district government. These events helped to facilitate the vision of the initiative and also to build national and international partnerships with different public and private groups and initiatives.
6. ***Reputation and trust.*** With a reputation and trustworthiness gained through its constant efforts to engage the public media and international network, the initiative's reputation has spread through the public domain and agrifood sector, making it easier to find collaborators to achieve its geographic expansion. Trust has been fundamental in choosing the market channels to allocate products and services.

Rice farm in Wuchang district

Source: Shared Harvest Farm staff.

To scale up this initiative, Shared Harvest wants more people to consume high-quality food. This means involving more consumers as members, and more farmers as collaborators in promoting its agro-ecological vision. In the future, the initiative hopes to extend beyond its geographic origins and have more collaborators in other provinces that will expand its scale in a horizontal fashion. It also wants to increase the number of new generation farmer entrepreneurs incubated by the farm, so they can become new collaborators. To achieve this scale, Shared Harvest Farm requires support from the state and from associations, more support from external business partners, and internal support and commitment from within its team.

Familia de la Tierra, Bogotá, Colombia[1]

INTRODUCING THE INITIATIVE

With more than ten years of experience, the Familia de la Tierra (FdlT) network is a private Colombian initiative of agro-ecological production and processing that takes a holistic approach to strengthening agro-ecological production systems through marketing management and promoting local and ecological products such as tomatoes, maize, beans, pumpkins and potatoes. The network integrates 20 social organizations of agro-ecological producers from across Colombia and includes about 100 farmer and indigenous families in different regions and territories, 18 restaurants, seven organic shops and a consumers' network of public schools, cooking schools and urban and peri-urban families. The initiative was born out of the idea to deal with the political, socio-economic and environmental challenges that producers faced in the transition from conventional agriculture practices to ecological ones. Most important, it needed to guarantee a better market access for sustainable products.

The FdlT model places importance on the value of the work expended in the production and conservation of native seeds; the production of organic fertilizers (research and testing of new organic inputs); agro-ecological food production; processing into speciality products; marketing; and, more recently, research projects (participation in projects with universities and national and international institutions). Its business philosophy focuses on making the work of family farming visible and generating awareness for producers, consumers and other types of intermediaries about agro-ecological practices. The initiative promotes the idea that integrating agro-ecological products

[1] This factsheet was written by Alejandra Jimenez and Allison Loconto, based on data collected in 2014 and in 2015 with Emilie Vandecandelaere. A total of 23 interviews were conducted with producers (five), intermediaries (three) and consumers (11). There were two additional focus groups with students at the cooking school (eight) and with high school students (15).

Key facts

Country: Colombia
Region: Bogotá
Year initiative created: 2004
Producers: 20 organizations and 100 farmer and indigenous families
Consumers: 100 families plus consumers at 18 restaurants and 7 organic shops
Different types of actors in the initiative: 4 (producers, consumers, researchers, restaurants)
Average number of links in the supply chain: 2.67
Core products: vegetables, tomatoes, maize, beans, quinoa, pumpkins, Andean potatoes, crisps, rice, dried fruit and roots, seeds, flour, tea
Geographic market size: local (urban) and regional sourcing
Number of market channels: 10
Type of market system: diversified market network
Definition of agro-ecology:

Challenge for market access: lack of consumer awareness
Main lesson: conscious consumption and production can be achieved through alliances among producers, consumers, restaurants and research
Opportunity for scaling up: internal consolidation by farmer diversification and policy recognition

> "We strengthen the production system in an integral way with basic products like tomatoes, beans and potatoes; we diversify the agro-ecological system through market creation and management."
>
> *Familia de la Tierra intermediary.*

into daily marketing and consumption practices not only generates good health but also encourages alternative consumption practices that are more conscious about the environmental and social dimensions of the food system (coherence between what consumers want and what they do, solidarity with small farmers, etc.). The decentralized organization of the FdlT network redefines the concept of a food chain formed by separate links, where traders gain the greatest margins. Instead, the economic system must be reorganized into a cyclical and integrative system for production and consumption whereby all actors benefit from exchanges with others.

The cyclical approach developed by FdlT includes a locally adapted Participatory Guarantee System (PGS). FdlT PGS involves not only agro-ecological certification for production and families during visits to farms but also includes reproduction, saving and use of native seeds, developing farmers' business capacity, participation of customers in certification and decision-making and a simple chromatographic analysis of the soils to test chemical pollution. To date, more than ten customer verification visits have been made with the participation of consumer groups, schools, restaurants, organic shops and other stakeholders. As of 2015, 35 agro-ecological farms with an average of 1 ha were certified.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

The production cycle of FdlT is a closed-loop food cycle. From land preparation to consumption, all production activities use bio-inputs and local seeds. They focus a great deal on agro-ecological production and reproduction of seeds, developing processed products to diversify the agro-ecological product range (Figure 1) and to generate added value for rare products such as dried *yacón* root (*Smallanthus sonchifolius*), *yacón* root honey, coca noodles and potato crisps. Activities also integrate packing design, product marketing and promotion activities, consumption and waste recycling into the system. FdlT restarts the production and food cycle in an autonomous way by minimizing and recovering waste and integrating it into the production process, thereby reducing costs. Producers define this type of agriculture mainly as agriculture practised by small producers without chemical inputs and using native seeds, which promotes conscious production and consumption, health, environmental care and food safety through healthy, innovative and functional agro-ecological products.

Diverse lettuces produced by Utopia farm, a FdlT member

Source: A. Jimenez, 2015.

TABLE 1
Sustainability criteria

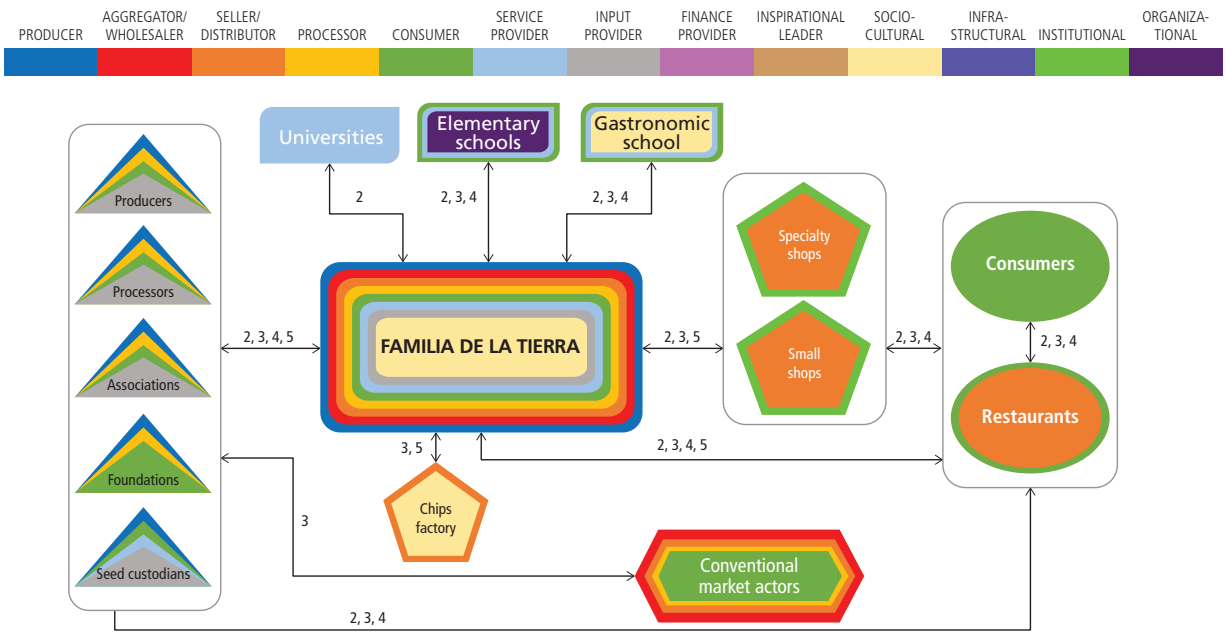
1.	Use of traditional seeds
2.	Biodiversity management
3.	Soil and air conservation
4.	Local resource management, use and conservation
5.	Environmental care and conservation
6.	Water care
7.	No use of agrochemicals
8.	Animal protection
9.	Forest conservation
10.	No use of genetically modified organisms
11.	Respect and care for human beings
12.	Respect for traditional knowledge
13.	Management of traditional production systems
14.	Food sovereignty
15.	Gender equity
16	Fairtrade
17	Solidarity

Source: authors' elaboration, based on interviews.

The FdlT network is spreading its influence to agro-ecological extension activities. It promotes agro-ecology principles:

- through seminars and special courses in elementary and cooking schools;
- by developing agro-ecological research projects with the university nutrition research network;
- certifying agro-ecological products with a PGS.

FIGURE 1
FdlT actors



Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Source: authors' elaboration, based on interviews.

FdlT's PGS is an alternative process certification that has been modelled and adapted from the PGS guidelines of the International Federation of Organic Agriculture Movements (IFOAM) to the local production characteristics and environment. Adaptation of PGS includes prioritizing local and native seeds, soil chromatographic analysis, consumer visits and a set of 17 sustainability criteria and principles (Table 1). With the objective of developing a trust-building system, this approach assures the agro-ecological origin of products. Through these criteria, producers, intermediaries (shops and small stores), customers (restaurants, schools and final consumers) and other actors evaluate and guarantee agro-ecological product quality, sustainable use of natural resources, fair-trade practices and the social processes that are supported by them.

IS THERE AN ENABLING ENVIRONMENT?

There are a number of laws and initiatives in the country that provide support for the emergence of ecological products.

- Resolution 187 of 2006 of the Ministry of Agriculture and Rural Development – regulations for primary production, processing, packaging, labelling, storage, certification, importation, marketing and establishing the Control System of Ecological Agricultural Products.[2]
- The Colombian Agriculture and Livestock Institute (ICA) [*Instituto Colombiano Agropecuario*] Resolution 698 of 4 February, 2011 for the registration of producers and importers of agricultural bio-inputs.

FdlT potato crisps

Source: A. Jimenez, 2015.

[2] Instituto Colombiano Agropecuario (ICA). http://www.ica.gov.co

- An associative agreement with the Economic Development Secretary of Bogotá for the development of market studies to identify the different market channels for agro-ecological products of local agricultural origin.
- In 2012, through the Bogotá Humana political project, key guidelines were proposed to link farmers' associations with ecosystems in order to achieve a better implementation of ecological agriculture, environmental protection and conservation of the ecosystems, and a better development model for Bogotá.
- National and local discussion platforms about organic agriculture created by the private sector and Non-governmental Organizations (NGOs), including the Food and Agriculture Organization of the United Nations (FAO); Agro-ecological Movement of Latin America and the Caribbean (MAELA) (Movimiento Agroecológico de América Latina y el Caribe); IFOAM; and the Slow Food movement.

HOW IS BUSINESS CARRIED OUT?

The FdlT network is coordinated by a small agricultural enterprise managed by three people (two Board managers and one employee). Besides management activities, they develop production, processing, marketing (sales, research and opening up new market channels), research (participation in projects with schools and universities), certification (PGS) and extension (communication) activities. In this way, they supervise all strategic planning and operations. FdlT is thus both producer and intermediary. FdlT collects products from its member families and takes them to the market channels. In this way the initiative generates revenue through agro-ecological product sales, principally in restaurants and shops. In 2013, FdlT and its PGS led small agro-ecological producers to make sales of around US$46 000 (140 million pesos) where the principal market channels were restaurants (80 percent of sales) and speciality organic shops (20 percent of sales).

Family producers, processors and seed custodians, farmers' associations and foundations and other farmers' networks around the country are members of the FdlT network (Figure 1). Universities support the network with research and information, together with elementary schools and cooking schools that spread information and knowledge, and share values and culture. They are important actors in the initiative, contributing to scaling up the network in the coproduction of knowledge. The potato crisps factory (*maquila*) is important in commercial transactions since it acts as a services provider and processing facilitator in frying, packing, sanitary registry and other facilities in the production of potato crisps.

The business model of FdlT has the following characteristics:

1. ***Community embeddedness.*** FdlT is integrated into the regional community of Bogotá and its surrounding areas, works for the community and supports citizen initiatives. It promotes community initiatives in the creation of innovative products such as jam, syrups and tea from *yacón* roots; promotes community conservation and dissemination of native seeds through supporting urban and rural vegetable gardens and the seed custodians; and creates community work spaces in the production of agro-ecological inputs, processing and common marketing. The community has access to FdlT native seeds on the condition that it puts them to good use, respects and disseminates them. Before its inception, FdlT researched the social conditions of its community through

FdlT supports the development of farmers' capacities – farmer member processing yacón roots

Source: A. Jimenez, 2015.

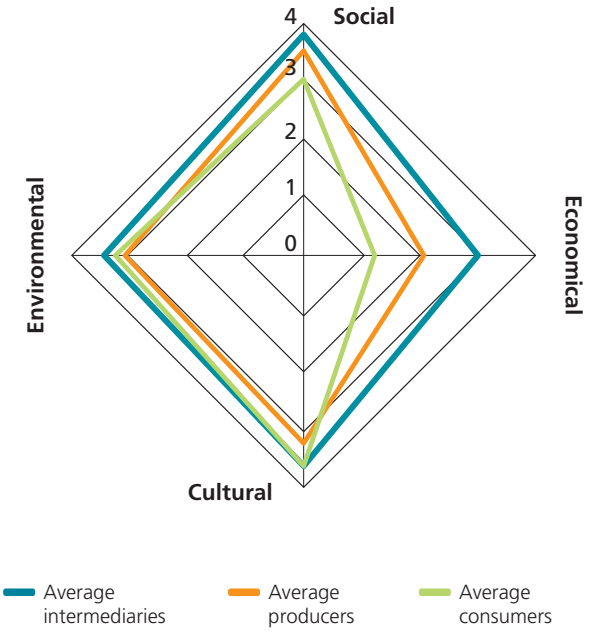
market studies and activities with producers and consumers as participants. By doing this beforehand, it was able to respond to the specific needs of the community such as supporting family farming and agro-ecological production, and create market channels for agro-ecological products, giving the community access to a wider range of ecological products. The FdlT PGS promotes the participation of all the community in agro-ecological production assessments. Its activities encourage sociability, solidarity, creativity and respect, and strengthen social ties within the community.

2. ***Participatory decision-making.*** This initiative creates opportunities for visits to members' farms, tasting sessions and support in academic courses with schools and universities that enable the actors (producers, processors, intermediaries and consumers) to participate in decision-making. Producers can thus take autonomous decisions about practices, product quality and marketing strategies that benefit production, on the basis of the discussions and participation with consumers, intermediaries and others in agro-ecological production and processing. Consumers and intermediaries participate in the formulation and reformulation of the quality attributes of products as well as in the planning of innovative initiatives to include small farmers and rural and urban consumers. FdlT creates links among people who were not previously in the habit of socializing, especially between producers and consumers.
3. ***Financial independence.*** The autonomous food cycle and community production and marketing have created financial independence among the network members. FdlT's revenue comes from sales in the different market channels, which have been achieved after the implementation of marketing strategies designed to improve the autonomy of the network. The collaboration and creation of opportunities for dialogue generated by this initiative encourage producers to have financial independence, which is presented as an important goal in the transition towards sustainable food systems.
4. ***Oral agreements, not written contracts.*** FdlT's business philosophy is based on interpersonal trust and uses short- or long-term oral engagements with producers and processors. Within these agreements, prices, quantity of production to be purchased (entire or in part), delivery times and costs, quality and type of products are established.
5. ***Inclusivity.*** The horizontal network approach used by FdlT promotes the participation of all stakeholders in agro-ecological production and marketing. FdlT includes and takes into account small producers (particularly the most vulnerable), farmers and indigenous groups in all processes (production, quality and marketing). The initiative works with

Andean maize varieties saved and conserved by an FdlT seed custodian

Source: A. Jimenez, 2015.

FIGURE 2
Perception of sustainability (n=10)



Source: authors' elaboration.

families, community groups and students who are all considered important components in carrying the initiative on into the future. FdlT maintains its inclusivity based on its rigorous criteria for participation – mainly strict adherence to the principles of agro-ecology for producers, and historically inclusive organizational forms for processors. FdlT seeks "conscience generators" in its consumers and constantly improves the accessibility and visibility of its products.

6. ***Efficiency of natural resource cycles.*** More than an economic efficiency, FdlT defines efficiency as the rate of production in relationship to the rate of natural resource cycles. This means that natural resources are used in a way that guarantees reforestation and prioritizes environmental care and conservation awareness for future generations.
7. ***Continuous improvement.*** The efficiency and economic autonomy achieved by the initiative over the last few years are the result of good management and the participatory governance model based on the PGS system. FdlT members believe that they can improve both the initiative and stakeholders' benefits through the creation of new market channels, better organization and more discipline among actors.
8. ***Strong cultural, environmental and social sustainability.*** FdlT members perceive the initiative to be strongest in terms of its environmental performance (Figure 2). Consumers ranked economic sustainability the lowest and intermediaries ranked it the highest. This perception can be explained by the relatively low participation of consumers in the network and their lesser knowledge about its finances.

HOW ARE MARKETS CREATED?

FdlT has developed its network around markets for access to inputs and in order to market its fresh and processed products.

Where do production inputs come from?

Agro-ecological input markets are not particularly developed in Colombia. Farmers in the FdlT network find the principal source of inputs such as seeds, compost and biological pesticides and fertilizers from their own production. Producing their own inputs gives farmers benefits such as good-quality production, certainty about the biological origin of the inputs, complete knowledge about quality and productivity, waste reduction, reduced production costs and greater incomes. Some producers acquire inputs such as seeds, lime, packaging and containers in markets and stores when they cannot produce them themselves.

Where do products go?

A number of factors have created a proliferation of new market channels in Colombia. Specifically, these are: (i) a growing need to produce and consume healthier food; (ii) changes in consumption habits towards a preference for safe food; (iii) an increasing interest in quality certification; and (iv) consumer awareness of the social and environmental impacts of agricultural production on the family structure. Depending on activity, producers allocate different percentages of production to market channels. One of the seed custodians allocates 90 percent of products to own consumption and 10 percent to agro-ecological markets, while other producers allocate 20 percent on average to own consumption, 55 percent to agro-ecological markets and 25 percent to conventional market channels. The market channels managed by FdlT comprise 18 restaurants, seven organic shops, end consumers and new market channels such as bakeries and university fairs. FdlT producers also access a wide range of market channels (Table 2).

What marketing strategies are used?

The private sector has been an important player in the marketing of FdlT's agro-ecological products. Restaurants, besides looking for healthy and organic attributes, buy agro-ecological products when they have a physical characteristic that makes them different from conventional or common products. Physical "innovative" products give a prestigious aspect to menus and upgrade restaurants to the status of healthy and innovative

Organic waste management centre

Source: A. Jimenez, 2015.

TABLE 2
Where can FdlT products be found?

Market channel	
Open-air markets	25% conventional
Traders	
On-farm shops	75% agro-ecological and organic
Direct sales	
Farmers' markets/ ecofairs	
Cooperatives	
Speciality shops	
Restaurants/hotels	
Exchange	
Own consumption	

Source: authors' elaboration, based on interviews.

The *Verde Oliva* strategy

The *Verde Oliva* (green olive) cookery school attempts to find local and ecological products and often uses farmers' markets. The school looks for innovative products to create special menus and new recipes and promotes local production and consumption through its teaching. The school is in constant communication with other schools and students in order to create an information network that enables it to access local, ecological and fresh products. The mechanism of this information network means that students who visit the markets communicate the new products that they have seen, the location, the prices and also the name of the producers, in order to help their colleagues to access agro-ecological products.

gourmet restaurants. The principal FdlT agro-ecological products used by restaurants are lettuce (FdlT produces lettuce in diverse varieties and colours), tomatoes, unrefined *panela* cane sugar and potatoes. In the organic shops, price discounts may be applied – for example, the Azimos organic speciality shop offers discounts when customers come by bicycle.

Organic products are usually promoted through marketing, publicity and public events. However, FdlT also conducts product demonstrations and quality tastings, to explain agro-ecological production practices to consumers and potential customers. It strategically targets restaurants and bakeries that share its principles and give the appropriate value to its agro-ecological products. FdlT is aware that conventional market channels are not the best places for its products because they do not give FdlT products the value that they merit, but they still form part of the target for FdlT's economic scaling-up strategy.

Challenges or opportunities for market access?

Lack of consumer awareness is the principal challenge. Consumers are not concerned about the agro-ecological quality of food and always have the idea that organic products are very expensive. Agro-ecological products may also be difficult to find or there may not be enough information for the consumer to know whether the product is ecological or not (e.g. lack of labels and other informative material). Both consumers and intermediaries found there to be a shortage in the supply of agro-ecological products, particularly fresh fruit and vegetables.

Producers explained that this shortage is the result of many challenges along the production cycle such as high costs and difficulties in access to national sanitary registration for processed products and livestock through the National Food and Drug Surveillance Institute (INVIMA). There is also significant market demand for products that farmers in the network do not produce, such as pineapples, *guanábana* (*Annona muricata*) and other fruit. Customers are not interested in buying these from other markets and the rest from FdlT since they want to buy everything in the same place. Other challenges are delayed payments (60–90 days) by some restaurants, which is not convenient for small farmers. Lastly, there is a lack of knowledge about where to find markets.

HOW IS VALUE CREATED?

What are the characteristics that give value?

Visual and physical attributes were significant in qualifying the agro-ecological products required by intermediaries and consumers. The characteristic most sought after in markets for agro-ecological products was high quality (Figure 3) in the sense of optimal visual aspect. Producers (four out of five respondents) noted that consumers and intermediaries wanted large products with a good colour and texture. These qualities were principally required by restaurants, since end consumers were not so demanding.

One producer said that some consumers, especially end consumers, do not look for any specific nutritional characteristics because they know the ecological quality of the products. Agro-ecological

FIGURE 3
Characteristics of agro-ecological products

Source: authors' elaboration.

FIGURE 4
How is quality communicated?

Source: authors' elaboration.

characteristics were mentioned, such as "direct from farms", "artisanal", "less toxicity" or "no chemicals and pesticides", "trust", "by hand" and "natural". Physical and ecological qualities were often mentioned together. For example, restaurants asked for innovative products (original taste, different texture and colour) and of high quality regarding weight, texture, large size, colour and freshness, as well as "healthy" and "without chemicals". For the speciality shop interviewed, it was important that products were fresh and natural, coming directly from farms or local initiatives. However, physical appearance and "aesthetically attractive presentation" were also considered important characteristics. It is clear that customers participating in the FdlT network recognize and value agro-ecological characteristics as qualities that can be found in markets.

Creating shared value?

The qualities above are principally communicated and transmitted through personal contact (ten out of 11 respondents; Figure 4). Quality is further communicated through farm visits, training and PGS controls. Visits to producers' farms are the second most important way in which quality attributes in the FdlT network are shared (five out of ten respondents). These visits include different aspects of the farm such as its gardens, the production systems of manure and other inputs, seed conservation practices, animal production, final disposal of waste and natural resources (rivers and forests around the farm). FdlT also uses other means such as the Internet and social media, fairs, seminars and exhibitions. Personal communication of quality creates discussion opportunities where formulation and reformulation quality processes take place. Feedback loops are prevalent in the FdlT network and all actors are active in commenting on product quality.

The prices of products are established by calculating production costs and yields. Market prices are then shaped by adding a margin based on a percentage of the production cost or the supplier price. Depending on the production system and market, some of the families and associations that participate in the network take conventional market prices into account when setting prices; others make annual lists that are shared in advance with consumers. In fact, 82 percent of respondents reported that they learn about prices primarily through direct contact and then via the Internet. Prices are not usually negotiated within the network, mainly because consumers accept the prices charged by producers and intermediaries. Indeed, most actors found prices to be fair in the majority

TABLE 3
How fair do actors think prices are?

	On farm	Direct sales	Farmers' markets	Traders	Open-air markets	Cooperatives	Speciality shops	Restaurants
Mean*	4.9	3.67	4.00	3.67	3.62	4.00	1.54	3.00
N = 22	10	3	2	6	16	2	11	4
Standard deviation	0.316	0.577	0.000	1.033	0.50	0.000	1.213	1.155

* 1 = very unfair; 2 = unfair; 3 = neither fair nor unfair; 4 = fair; 5 = very fair.
Source: authors' elaboration.

of the market channels. The fairest prices were on farm, while speciality shops were seen as offering the least fair prices (Table 3). This was felt by consumers to be an inconsistency between the prices the shops charged consumers and the prices they paid to producers.

SCALING UP, WHERE TO NEXT?

Since the beginning, FdlT has undergone a number of important changes.

1. ***More products.*** The initiative is promoting and trading a growing portfolio. The quantity of products has risen thanks to crop diversification, production planning and the processing of innovative products including *yacón* subproducts such as dried *yacón* and *yacón* tea and potato crisps. This product diversification has been supported by the promotion and reproduction of native and local seeds developed by the FdlT network.
2. ***Focused marketing.*** FdlT has consolidated its market channels for products that come from indigenous and farmer economies. It has begun to focus on serving restaurants and organic shops that are looking for diversity and innovation, healthy and natural foods and ecological quality, and are willing to pay more for these products.
3. ***Knowledge coproduction.*** An increased number of on-farm visits and the development of PGS certification have meant that producers, consumers and intermediaries learn and know more about agro-ecological concepts, practices and methods. Participatory approaches and partnerships with public research and the private sector have enabled FdlT to make more information available to consumers about healthy consumption habits.
4. ***Production and promotion of native seeds.*** Promotion and exchange of native seeds through seminars and conferences have enabled FdlT to conserve 14 varieties of tomatoes, two varieties of quinoa, ten varieties of leguminous crops, three varieties of broad beans, 39 different varieties of beans, and local seeds for maize, lentils, celery and aromatic herbs. The seeds are destined for families' own consumption, seed reproduction and conservation, and commercialization.

These changes have strengthened the initiative by allowing economic and financial autonomy and promoting food sovereignty for the families in the network. FdlT reports a growing consumer interest in ecological activities and stronger linkages with new markets. To reach its current scale, FdlT members have appropriated the entire production cycle and the network has participated in social and political projects that have opened new spaces for public dialogue around agro-ecological issues. This has led to its recognition as a "consciousness generator" and a promoter of agro-ecology.

To scale up this initiative, FdlT wants to consolidate and to open new market channels where the agro-ecological value of its products will be recognized. It wants to diversify its local varieties by learning how to improve the adaptation of these varieties to each farmer's agro-ecological conditions, in order to serve these new markets. To achieve this, FdlT needs the following types of support:

1. Internal support and commitment by producers to improve their production and supply.
2. Public policies that strengthen and promote the economic leverage of civil society to promote agro-ecology.
3. Participation and interest of the private sector in recognizing agro-ecological qualities in products and including these in their supply chains.
4. Flexibility in food safety registration requirements for processed products and a recognition of local seed varieties within the quality seed programmes.
5. Political recognition of PGS as a credible alternative certification system for small producers.
6. Greater publicity in the market for the diverse products and varieties.

Canasta Comunitaria Utopía[1], Riobamba, Ecuador

INTRODUCING THE INITIATIVE

The public sector and civil society in Ecuador had been searching for years for ways to promote and develop projects enabling small rural and indigenous farmers to access markets. The demand for rural development had always been seen as disassociated from production development. However, recent experiences and observations in the country show a special interest in and focus on demand as a driver for the development of the agricultural sector within the perspective of sustainable development.

The Canasta Communitarian Utopia (CCU) – literally, Utopia Community Basket – is one of these initiatives. Created in 2000, CCU is an organization of seven low-middle income urban families seeking access to good-quality food. CCU's main objective is to work as a food cooperative with a common marketing approach that ensures access to healthy food and, at the same time, has the advantage of purchasing products in bulk to save money (30–50 percent). In the past, participants would combine their money to buy products and then divide it up into equal parts. However, in 2010, the initiative, supported by the Utopia Foundation (an urban development organization) and the EkoRural Foundation (a rural development organization), established direct market links with members of the New Generation Association [*Asociación Nueva Generación*], a small producers' association in Tzimbuto. This association has multi-actor direct links with demand for agro-ecological and fresh products.

The initiative seeks to create autonomy and local empowerment. It forges and strengthens linkages among small producers, consumers and other actors involved in sustainable food systems with the objective of influencing and changing

[1] This factsheet was written by Alejandra Jimenez, based on data collected by Ross Maria Borja in 2015. A total of 34 interviews were conducted, including interviews with 15 producers, four intermediaries and 15 consumers.

Key facts

Country: Ecuador
Region: Riobamba
Year initiative created: 2010
Producers: 100 family farms
Consumers: 100 families
Different types of actors in the initiative: 6 (producers, consumers, cooperatives, NGOs)
Average number of links in the supply chain: 1.5
Core products: Andean fruit and vegetables, Andean roots and tubers (*mashua*, *oca*, *melloco*, etc.), flour, eggs, cheese, organic inputs
Geographic market size: local (Canasta Comunitaria Utopía), regional (market channels, producers' association and independents) and national
Number of market channels: 6
Type of market system: interactive market network
Definition of agro-ecology:

Challenge for market access: poor transportation for producers and consumers that inhibits participation in community events
Main lesson: the creation of discussion spaces for producers, consumers and intermediaries enables production planning and price negotiation, even with wholesalers
Opportunity for scaling up: spillover effects on other communities

"The most powerful aspect of the initiative is that it shows the value of the community organization around food and consumption. A second aspect is that this initiative operates with volunteers, showing that values build sustainable management."

Ross Maria Borja, EkoRural.

perceptions, attitudes and behavior, and creating an appropriate environment for social change. The CCU model places value on the importance of demand and of effective linkages between field and town.

CCU includes about 100 producers and 100 families in Riobamba. These families access agro-ecological products primarily through *canastas* (boxes or baskets) on a specified "Canasta Day". Two weeks before the Canasta, interested families pay a fixed fee per box/basket. This strategy helps CCU agents to know in advance how many baskets or boxes to prepare for the next Canasta Day. This day is the main event promoted by the CCU initiative and takes place every two weeks.

The CCU experience has received national and international attention, and several interested parties from Non-governmental Organizations (NGOs), local and national government agents and families from other regions have visited the initiative to learn about and replicate the model in their regions.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

Traditional indigenous agriculture is still practised in Ecuador. It is based on agro-ecological principles and includes biodiversity management; associations; differentiated use of landscapes; collective management of space; nutritional management of soils to avoid erosion; and hedgerows. Despite the agro-ecological principles involved in this production system, the majority of producers do not recognize it as such, but merely as the traditional Andean production system that has been practised for generations. The agro-ecology of the New Generation Association of the Tzimbuto community is characterized by a mix of traditional Andean indigenous practices and modern crop practices. Producers define their agro-ecological production as a system that involves the minimum use of agrochemicals.

The community has worked and been trained in the concept of "biodiverse" farms and the use of Andean fruit and vegetable seeds, the implementation of compost and biocontrols, and the introduction of Andean tubers such as *mashua* (*Tropaeolum tuberosum*), *oca* (*Oxalis tuberosa*) and *melloco* (*Ullucus tuberosus*). Moreover, with the objective of promoting agro-ecology in the communities, the CCU initiative has created contacts and links with people, organizations, social movements and institutions involved in agro-ecological practices and through meetings and on-farm visits. Consumers have changed their preferences, from looking for the cheapest food available to seeking food with specific qualities. They have done this by purchasing directly from producers and recognizing the need to build a strong rural-urban relationship around agro-ecology. These new connections and activities have improved trust and solidarity among all actors (producers and consumers). During the exchange activities (deliveries), farmers also work in the distribution of products and share directly with consumers, creating a discussion space about product qualities and agro-ecological practices.

Diversification of crops on farm

Source: EkoRural.

IS THERE AN ENABLING ENVIRONMENT?

There is a strong institutional and political environment in Ecuador for family farming and agro-ecology.

- The Constitution of 2008 generated a legal framework that facilitates the development of local initiatives to promote food, ecological production and the flow of agricultural products. Article 13 in the Constitution establishes the access to healthy and local food as a "right of the good way of living", whereby "persons and community groups have the right to safe and permanent access to healthy, sufficient and nutritional food; preferably produced locally and in keeping with their various identities and cultural traditions. The Ecuadorian State shall promote food sovereignty". Articles 14 and 15 establish the rights of the people to a healthy and ecologically sound environment, and the protection of environmental conservation and biodiversity is declared a public interest promoted by the state. These articles clearly

forbid the use of internationally prohibited agrochemicals, genetically modified organisms (GMOs) and other chemical products that can harm human health and affect food sovereignty or the ecosystem.

- The Government has created institutional spaces to promote the Law of Food Sovereignty in the country. Examples are the Plurinational and Intercultural Conference on Food Sovereignty (COPISA), the National System for Food and Nutrition Security (SISAN) and the General Coordination of Commercial Networks. These institutional spaces encourage social and solidarity economy initiatives such as ecofairs and farmers' stores, public procurement, and community box schemes.
- Civil society mobilization has forwarded the development of two draft legislations: Agrobiodiversity, Seeds and Promotion of Agro-ecology (proposed in 2012 and under discussion) and Responsible Consumption for Food Sovereignty (proposed in 2013 and under discussion).
- Several initiatives by the Government, decentralized autonomous governments (DAGs) and local and international development organizations have been involved in agro-ecological promotion, instating legal potential to create coordinated alliances in the process of linking small producers with direct local markets.
- The sustainable agriculture model focuses on strengthening small farmers' competitiveness and innovation by hands-on learning through the Farmer to Farmer [*Campesino a Campesino*] teaching methodology, Farmer Field Schools and other farmer-led innovations and learning.
- National and international NGOs such as EkoRural, the Heifer Foundation,[2] VECO,[3] SwissAid[4] and Agronomes et Vétérinaires Sans Frontières (AVSF),[5] are working to promote and position agro-ecology as a recognized production system.
- The National Agro-ecological Collective [*Colectivo Nacional Agroecológico*][6] and National Agro-ecology Coordinator are playing an important role in increasing the sensitivity, awareness and strengthening of agro-ecological initiatives and movements.
- The *Qué Rico Es Comer Sano y de Nuestra Tierra!*[7] (it is great to eat healthy food from our own land!) national campaign promotes responsible and healthy food consumption in Ecuador. It is representative of the efforts being made to educate consumers about agro-ecological food, promotes direct contact between producers and consumers and contributes to building up consumption habits that stimulate family farming.

HOW IS BUSINESS CARRIED OUT?

The EkoRural Foundation, Utopia Foundation, Tzimbuto New Generation Association and CCU coordinate the CCU box scheme initiative in Riobamba, Ecuador. EkoRural,[8] a national civil society rural development organization, involves 15–20 people and its mission is to strengthen rural populations in sustainable and equitable production processes suited to specific community needs. EkoRural facilitates the creation of institutional linkages through the Utopia Foundation, the CCU consumer club and the Tzimbuto New Generation Association. The latter is a regional civil society organization founded in 2005 that supports the economic and finance initiatives of its members. EkoRural and the Utopia Foundation support CCU in funding, sharing knowledge and information, promoting values and serving as control organizations (Figure 1). New Generation not only supplies products to CCU, but is a mechanism for sharing knowledge, values and culture, and also carries out self-monitoring activities, as some producers participate directly in the Canasta Day.

CCU's economic role is to sell products through the *canastas,* the principal source of funding. The National Agro-ecological Collective also contributes to finances. Therefore, capital is collective, resulting from cooperators' and consumers' crowdfunding, which guarantees the financial autonomy of the initiative. The initiative is supported through the work of volunteers, families and agents in the coordination and development of *canastas* and Canasta Day. From the beginning, the CCU initiative aimed at the autonomy and local empowerment of the community and

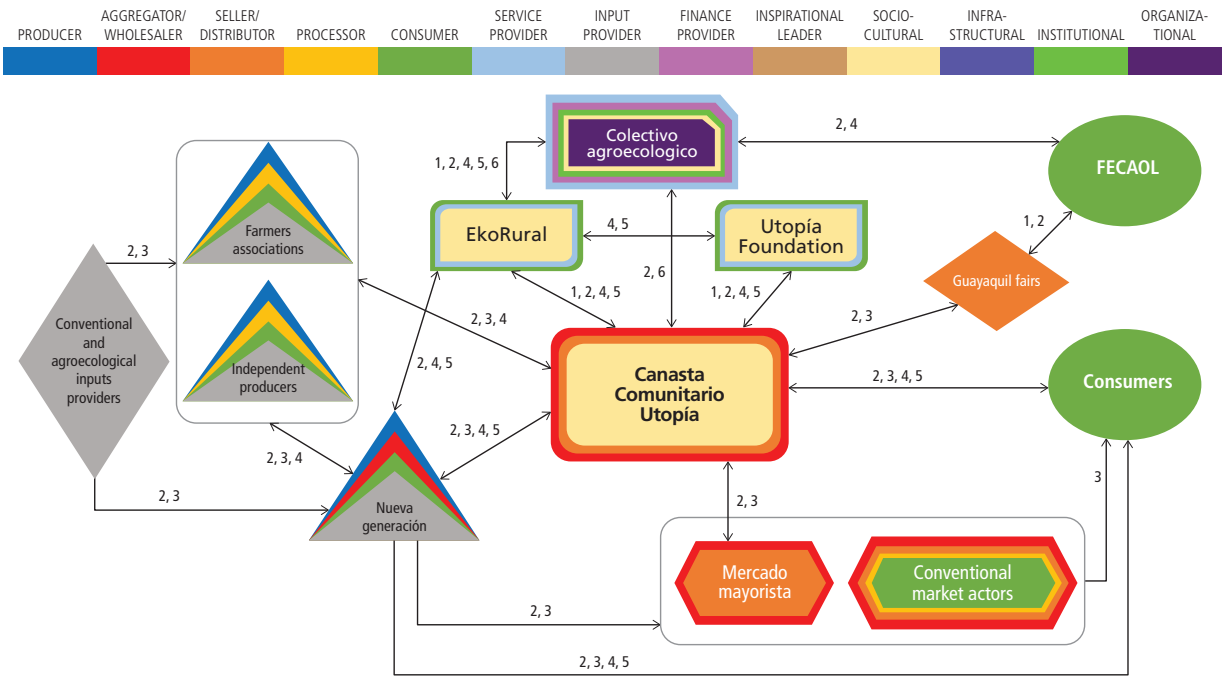
[2] www.heifer-ecuador.org/category/agroecologia
[3] www.veco-ngo.org
[4] www.swissaid.org.ec
[5] www.avsf.org; https://www.avsf.org/es/posts/1644/full/las-experiencias-innovadoras-de-avsf-agroecologia-y-circuitos-cortos-en-ecuador
[6] https://colectivoagroecologico.wordpress.com
[7] https://quericoes.org
[8] https://ekorural.org

at strengthening and building up strong links among the actors involved in the production and consumption of healthy food.

The business model of CCU has the following characteristics.

1. ***Community embeddedness.*** CCU works within the community, adapting to its social needs. The initiative has worked from the beginning for the community, especially low- and middle-income families, to access good-quality products. The families and CCU representatives have collaborated to make this gradually happen. The work of these families, volunteers and representatives meet a social and regional need by linking producers and consumers in direct relationships and through healthy and agro-ecological products. As a result, the initiative promotes accessible products for the community, contributing to a diversified diet that meets cultural needs.
2. ***Participatory decision-making.*** CCU enables producers and consumers to participate in decision-making, especially about quality, prices and the general management of the initiative. It involves all actors in the collective management of finances and production where decisions are taken consensually among members. Members participate in assemblies, meetings and forums on specific topics such as budgets. When the budget is known, members decide how much to ask for their products and this is shared directly with consumers, which guarantees transparency. Such participation has promoted the emergence of links, especially between producers and consumers, with people outside their usual social networks and with whom they are not in the habit of socializing.
3. ***Inclusivity.*** Small producers (particularly the most vulnerable), farmers and indigenous groups can participate in the CCU initiative if they can prove that they follow agro-ecological production principles. Volunteers who participate in this initiative are members of the same families that make up the community. The men, women and children of these families contribute to CCU management and logistics by developing activities such as purchasing, packing, cleaning and collective management of space. Inclusivity has always been a topic of discussion among actors and current CCU vision focuses on empowering the members of marginalized groups, especially small producers.

FIGURE 1
CCU actors' map



Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Source: authors' elaboration, based on interviews.

4. ***Quality.*** CCU does not use official standards and regulations for its agro-ecological products. Through quality, origin agreements and on-farm visits, CCU members determine whether products and producers can participate in the initiative.
5. ***Sustainability.*** Consumers perceive the strong sustainability of the CCU initiative, particularly because of its good management, the changes that have generated economic growth and the creation of discussion spaces and long-term collaboration among members. On the other hand, producers perceived the initiative to be declining in sustainability. This perception may be linked to a continuous loss of interest and the low participation of actors in the social, cultural, economic and environmental original processes. However, they stated that they would try from their own production and participation in the *canastas* to contribute to building up the sustainability of the initiative.

HOW ARE MARKETS CREATED?

CCU has developed its vision around the basket/box scheme model, sourcing from other local markets to gain access to inputs and markets for its fresh and processed products. The market scope is local and regional, as some member families come from communities in towns around Riobamba such as Pompeya and Santa Ana.

Where do production inputs come from?

Agro-ecological inputs such as native seeds and compost are the principal inputs bought by the producers involved in CCU. Respondent producers acquired chicken manure (*gallinaza*) from various sources: from other producers in the community, in Riobamba in the wholesale market, on farm (a truck brings bags to the field) and sometimes from their own production. Input purchases within the community have benefits for farmers, including no transportation costs and low prices. Native seeds are the second agro-ecological input most often purchased by producers (71 percent). Producers (12 out of 15 respondents) buy seeds principally from an agrostore in Riobamba, which gives them benefits such as short distance, time saving and product availability. They also buy or interchange seeds from other producers and families in the community since this means high quality, high yield and trust in the product. However, the majority of respondent producers (86 percent or 13 out of 15 producers) reported facing challenges in accessing agro-ecological inputs. These challenges included lack of transport, no economic resources and a poor price/quality ratio (prices too high for low-quality seeds and inputs) in some markets.

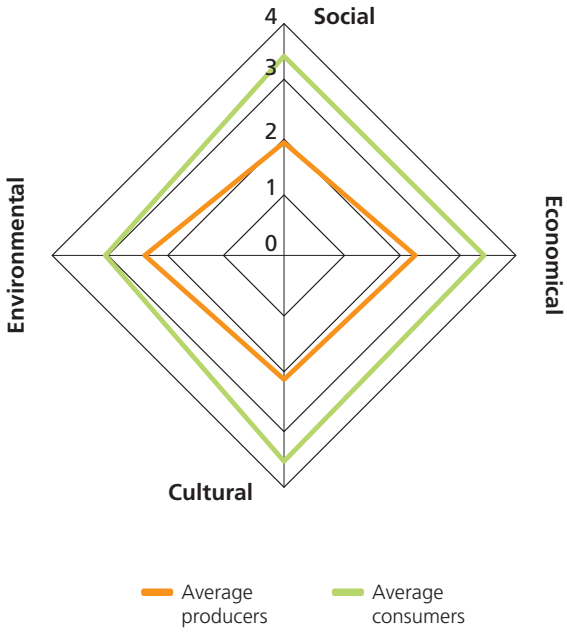
Where do products go?

Given the international trend to produce and to eat healthy food, people in Ecuador in general have increased their interest in agro-ecology,

Participation of farmers, women and children in CCU organization and logistics

Source: EkoRural.

FIGURE 2
Perception of sustainability (n=14)



Source: authors' elaboration.

TABLE 1
Where can agro-ecological products be found in Ecuador?

Market channel	CCU producers
CCU box scheme	34% agro-ecological
Own consumption	
Ecofairs	66% agro-ecological and conventional markets
Direct sales	
Consumer clubs	
Speciality shops	
Exchange	
Wholesale	

Source: authors' elaboration, based on interviews.

changing their conventional production and consumption practices and habits towards social and environmental awareness and safe food. Consumers start to recognize the importance of knowing where their daily food comes from as well who produces it and how. This interest has led producers to create and access a wide range of market channels, both agro-ecological and conventional, to sell their products. Even if the box scheme is the principal market channel managed by CCU producers, they also have the option of selling their agro-ecological products in other market channels (Table 1). CCU producers (15) interviewed allocate only 34 percent of their production on average to CCU and around 66 percent to other agro-ecological and conventional market channels.

About 60 percent of the agro-ecological products included in the CCU scheme come from local producers in the Tzimbuto community and from areas around Riobamba. The other 40 percent comes from a large closed market in Riobamba, the wholesale market, where producers, both agro-ecological and conventional, come from other areas of the country to sell their products. The reason why CCU only supplies boxes and baskets for agro-ecological products from small and local producers is because others do not cultivate all the variety of crops required to fill the boxes (i.e. to make up the typical diet, together with certain vegetables).

Challenges or opportunities for market access?

CCU consumers (12 out of 15 respondents) said that they have difficulty in participating regularly on Canasta Day and in community events because of a lack of free time from work and other activities on Saturdays. Producers reported challenges in participating in Canasta Day because of the lack of a good transportation system for them to bring and sell their products at markets in Riobamba. CCU producers also said they had difficulties in planning and coordinating production and harvest to coincide with CCU requests. They explained that sometimes they have no products to sell or are not producing the kinds of products that CCU wants, such as garlic, red onions and tomatoes. Moreover, orders for products come with too short a turnaround. Some consumers complained that there are sometimes products they do not know how to cook, such as aubergines, courgettes, *oca* and *mushua*. In other words, there is a gap between production and consumption requests within the initiative.

HOW IS VALUE CREATED?

What are the characteristics that give value?

Appearance was important in qualifying CCU agro-ecological products (Figure 3). Consumers look for visual and physical characteristics – a product that is not rotten, broken or squashed and is free of blemishes, but is also a product that tastes good, has a good colour, is fresh, washed and clean. Size (i.e. large) is another important factor; nevertheless, some consumers remarked that size is becoming less important because they have started to recognize that the elimination of chemicals may result in agro-ecological products that are smaller. As one consumer said: "I prefer small sizes because I know they are agro-ecological products with a natural condition". In other words, size does not matter once agro-ecological quality is guaranteed.

Agro-ecological qualities were also frequently mentioned in terms of chemical-free, healthy, nutritious and natural products. Consumers (5 out of 15) said that they wanted to know whether

FIGURE 3
Characteristics of agro-ecological products

Source: authors' elaboration.

products are agro-ecological, where they originate, and how and by whom they are produced. Consumers are interested in supporting small partner farmers because they know that they produce genuine agro-ecological products.

Creating shared value?

The qualities cited above are principally communicated through on-farm visits and tours with producers (21 out of 34 interviewed; Figure 3). During these visits and tours, consumers are able to plant and harvest some of the products they eat daily. They learn how these products are produced. Farm visits allow consumers to build trust, friendships and strong links with producers and their families. Product quality is also communicated on Canasta Day and in deliveries. CCU gives consumers the opportunity to share their preferences with producers who come to support Canasta Day. Actors (28 out of 34 interviewed) said that there are always opportunities for feedback about quality and the best time is when boxes are delivered and when volunteer participants come to the Canasta Day to help with logistics. These encounters create discussion and feedback loops on the quality of products and enable producers and consumers to participate in the construction of quality agreements.

CCU products are a core vehicle for communicating quality through their appearance, taste and colour. Meetings, forums, videos and word of mouth also help in doing this.

CCU prices are established at an Annual Assembly with the Utopia Foundation, EkoRural and the New Generation Association, where information about production costs and challenges are shared by participating producers, consumers and managers. These prices remain fixed throughout the year. However, when it is necessary to make changes or set prices, CCU organizes an extraordinary assembly with consumers. These changes are communicated by phone, word of mouth, price lists and weekly newsletters. CCU agents and producers are responsible for sharing prices and communicating them to consumers. The assemblies and direct contact on Canasta Day enable prices to be negotiated between producers and consumers. These discussion spaces provide feedback on prices and help in building up trust and transparency in the initiative.

Most producers and consumers (31 out of 34) interviewed who participate in CCU found prices to be fair on Canasta Day for the following reasons.

- Low prices compared with other market channels.
- Boxes are given to consumers even if they do not have the resources to pay immediately.
- There is a great quantity and variety of products.
- Payment per unit of product to producers at better prices than in the wholesale market.
- No intermediaries.
- Fixed prices in low season.
- High quality of products.

Actors who considered CCU prices to be unfair gave their specific reasons. One consumer thought it was unfair that "they have to raise the price of the *canasta* to represent the work and efforts of the producers better; the *canasta* is so cheap". However, a producer highlighted the fact that prices are not fair because they are unreasonably cheap in relation to quality: "the product is clean and healthy, and it should have a better price".

FIGURE 4
How is quality communicated?

Source: authors' elaboration.

CCU delivery area

Source: EkoRural.

SCALING UP, WHERE TO NEXT?

Important changes have taken place in CCU since EkoRural, the Utopia Foundation and the Tzimbuto New Generation Association began their collaboration.

1. ***More products.*** The initiative lets consumers make suggestions about the products they want, which has pushed producers towards greater diversification in their production. The direct participation of consumers has generated a growing portfolio of products characterized by fresh agro-ecological fruit and vegetables such as plantains, pumpkins, broccoli, beans, cabbages and potatoes, as well as traditional and Andean products. This diversity in the products offered by CCU is accompanied by a greater physical and nutritional quality.
2. ***Better organization and discipline.*** CCU transformed itself from a simple informal organization to an institutionalized foundation in 2010. This has allowed the initiative to acquire its own space (collection point) for the development of activities and sales, buy transportation to improve deliveries, have better delivery schedules and open new market outlets. Today, CCU is a stable initiative that promotes discipline, compromise and harmony among participants.
3. ***Integration of more members.*** The initiative has promoted the integration of a greater number of participants in CCU, including more producers, consumers and students who have contributed to the current scale of the initiative. At the beginning there were 11 families, whereas now there are about 100 (averaging five members) together with about 100 participating producers.

These changes have strengthened the initiative by linking smallholder producers to low-medium income urban consumers and have promoted access to good-quality products for all the families involved. CCU has been a motivating force for other agro-ecological projects in the region; some participants have created their own box schemes in their neighbourhoods. The current scale of the initiative has been reached through the participation of EkoRural as facilitator in the creation of institutional linkages among the Utopia Foundation, CCU and the Tzimbuto New Generation Association of small producers.

To scale up the initiative, the actors interviewed felt that CCU needed to do the following:

- Increase the number of members (consumers and producers).
- Increase the quantity and variety of products.
- Hold more events, farm visits and meetings to promote agro-ecological knowledge.
- Have more Canasta Days.
- Improve the participation of consumer members in activities by better engagement.
- Make all products in boxes fully agro-ecological (100 percent).
- Circulate more recipes about how to prepare food with these products.
- Absorb all small producers' production and increase support for them.
- Revitalize consumers' institutional platforms, promoting the role of small farmer production at local level.
- Increase efforts to understand and visualize the local food system and its role in social and urban consumer organizations.
- Strengthen the linkages between farmers' networks and urban consumer networks to promote democratic food systems.

For CCU, the current challenge in transition from a traditional Andean production system with elements of conventional production towards a sustainable production system is the need to build collective effort among actors in the policy, scientific and productive sectors.

Grabels market[1], Grabels, France

INTRODUCING THE INITIATIVE

The Languedoc-Roussillon region in the south of France has historically been dedicated to mass agricultural production and long food supply chains. Local food chains have been emerging over the last few years but most of them are focused on high-income educated consumers. Grabels market is an innovative short chain open-air market created in 2008 in Grabels, a small town (7 000 inhabitants) located outside Montpellier (500 000 inhabitants, including the peri-urban area). By establishing a market in 2008, the newly elected local authority aimed to revive the dormant town, giving its middle-income inhabitants the opportunity of finding fresher and better products, and supporting local small-scale agriculture. The local team preferred not to have a farmers' market or an organic market, which it considered too elitist and unable to meet demand throughout the year. With support from the National Institute for Agricultural Research (INRA), a new type of open-air market was implemented, attracting producers as well as artisans and intermediaries mainly procuring products or raw materials directly from regional producers, respecting the principles of sustainable agriculture. The market has always been oriented towards local and regional consumers.

The market is founded on a charter, which people have to sign before becoming members, as well as on a collegial steering committee of the local authority, consumers and suppliers. This committee controls the application of the charter, notably by visits to farms and enterprises. In 2010, in order to dispel any doubt about the provenance of products, the local authority, with INRA's help, implemented a labelling system whereby a coloured label on each market product showed both its geographical origin and the number of

[1] This factsheet was written by Alejandra Jimenez, Yuna Chiffoleau and Sarah Millet-Amrani, based on data collected by Yuna Chiffoleau and Sarah Millet-Amrani in 2015. It includes 14 interviews (three producers, five intermediaries and six consumers).

Key facts

Country: France
Region: Grabels, Languedoc-Roussillon
Year initiative created: 2008
Producers: 120 direct and indirect farmers
Consumers: about 600 customers each week, representing 1 500 local and regional consumers
Different types of actors in the initiative: 7 (producers and artisans, consumers, municipal authority, researchers, wholesalers, retailers, service providers)
Average number of links in the supply chain: 1.2
Core products: fruit, vegetables, olive oil, wine, meat, bread, beer, eggs, goat cheese, roast chicken, fish, honey, seafood
Geographic market size: local and regional
Number of market channels: 9
Type of market system: interactive market network
Definition of agro-ecology:

Challenge for market access: for sellers, the capacity to deal with a local, diversified and fresh supply; for consumers, to ignore gossip about high prices and learn to consume differently
Main lesson: a local participatory system to ensure that the origin and quality of products in short chains can be more efficient than top down because it encourages learning and involvement by consumers, producers and intermediaries
Opportunity for scaling up: diffusion of the initiative to other municipalities and the retail sector; expansion of the market by inclusion of new sellers with new products

intermediaries between product and consumer. Where there was no intermediary, the colour was green; orange with one intermediary and regionally sourced; purple when coming from further afield. Moreover, green- and orange-labelled products had to respect the principles of sustainable agriculture as defined in the charter. In 2014, this system (charter, labelling, committee, participatory control) was protected by a free collective trademark: Ici.C.Local (Innovation for cooperation and communication in local chains), which is becoming widespread in France and can be applied in both open-air markets and retail shops.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

In France, the Grabels market model promotes regional agriculture by aggregating producers in direct sales as well as artisans and intermediaries who mainly procure and sell products or raw materials directly from regional producers. Participants in the market have to respect the principles of sustainable practices, including respect for animals, the environment and the seasons (Table 1). Markets are targeted at local middle- and low-income consumers.

To ensure sustainable practices, the market has a charter, which is defined by the collegial committee. This charter establishes the objectives and the modalities of the market, and brings together producers, artisans and traders to promote local and sustainable agriculture. It respects seasonality, forbids industrial production processes and bans genetically modified organisms (GMOs) even in animal feed. It also establishes the sourcing perimeter as 200 km in order to include meat, eggs and cheese, which are scarce in the region.

In signing the charter, producers can sell their own products and also have resort to those of other farmers in the region, with the objective of proposing a greater diversity of products on the one hand, and to promote cooperation between regional producers on the other. Artisans and traders must also use raw materials and/or resell products from local producers and respect the market charter.

> "The initiative started with the basic requirements regarding sustainability. Participatory processes, social pressure between stakeholders and cross-learning led to improved practices, both in production and processing and in consumption."
>
> *Facilitator.*

Products from local and short food supply chains (SFSCs) are given priority in Grabels market. Nevertheless, it is also possible to sell products from long supply chains, in order to ensure basic supply in the case of bad weather conditions or to complement supply with products that are essential for consumers but difficult to produce locally (such as lemons and garlic). Participants wanting to sell these kinds of products have to guarantee the origin of the products as well as the need for them, according to the level of importance they have in business or the difficulty in acquiring them from SFSCs. Those products are of a limited quantity (about 20) and are more numerous in winter.

In order to ensure the social and geographical origin of products, Grabels market applies a colour labelling system for each market product according to geographical origin and the number of intermediaries between producers and consumers (Figure 1). This system was put in place in 2010 to give consumers information and facilitate their buying decisions according to their preferences.

- *Green label.* There are no intermediaries. Products are from farmers' own production, local and respect the sustainability criteria defined in the charter.
- *Orange label*. There is one intermediary in the supply chain and products are from regional producers (i.e. in the region or the bordering department). Intermediaries must know the producers from whom they buy products; moreover, products have to respect sustainability criteria.
- *Purple label*. This is for products that come from further afield. Participants using this

TABLE 1
Grabels market best practices

1.	Supporting smallholder agriculture
2.	Local production (200 km maximum)
3.	Seasonal products
4.	No GMOs (including animal feeding)
5.	Low-input production
6.	No industrial production and processes (such as warmed greenhouses, battery farming)
7.	Affordable prices
8.	Raw materials for processed food mainly from regional producers (within 200 km)
9.	Acceptable working conditions
10.	Animal friendly and ecofriendly production methods

Source: authors' elaboration, based on interviews.

FIGURE 1
Grabels market labelling system

Source: INRA.

label have to supply information about the region, country and supplier of the product.

The initiative has been of great interest to many actors, and largely seen in the media – in local, national and international newspapers, electronic devices and conferences – as "social experimentation" in the framework of research projects on food chains and a local "living laboratory" in an agricultural and food policy-making perspective.

IS THERE AN ENABLING ENVIRONMENT?

In France, various regulations, programmes, labels and initiatives make reference to the integration of sustainability concerns into agricultural development through sustainable, organic or low-input/environmentally friendly practices. This regulatory environment provides support for the emergence of and transition towards sustainable agriculture based on organic, agro-ecological and low-input principles.

- The French Ministry of Agriculture and the Ministry of Ecology promote this environment mainly through the Futures Act [*Loi d'avenir*], adopted in 2014. This act formalizes the French agro-ecology project, which aims at supporting agro-ecological transition of the majority of farms by 2020.
- One of the measures implemented is the creation of a collective group of farmers to help the learning process through exchanges and discussions on environmentally friendly practices. In addition, the Government has launched a range of national plans [*Programme Ambition Bio 2017*, *Plan Ecophyto*] that include financial support to farmers as well as communication campaigns for consumers and new training programmes for advisory services and agricultural extension.
- France is one of the European countries most involved in support for short and local food chains, especially since 2009, when the Ministry of Agriculture officially defined the concept of "short food chains". Even if this definition does not include any criteria in matters of sustainability, support to local chains often targets the development of more sustainable food systems, and values initiatives respecting agro-ecological principles. In this perspective, initiatives for agro-ecological food systems can benefit from funds dedicated to short/local chains or systems: CASDAR, territorial food projects [*Projets alimentaires territoriaux*] dealt with by the Regional Directorate of Agriculture (DRAAF) and included in the *Loi d'avenir*.
- A new law on repartition of land under agrifood systems, aiming at developing SFSCs and organic food, especially in public catering, was being discussed by the Senate in May 2016, after its adoption by the National Assembly in January 2016.
- In France, participatory research in local food chains from an agro-ecological perspective receives particular attention. As local food chains are often considered exemplary cases in research involving users and citizens, a new source of support for agro-ecological markets has developed, from research institutes, regions and foundations (such as Fondation de France, Fondation Carasso).
- At first, Grabels market benefited from support from second and third sources since it was not originally considered an initiative linked to agro-ecology. Since 2015, it has benefited from support from a first source, through the funding of a Ph.D. on short chains contributing to transition to sustain-

able agriculture. Moreover, the initiative experimented in Grabels has been translated into a collective trademark, protected in 2014 by the National Institute for Intellectual Property (INPI), which registers all trademarks and industrial patents in France. The National Institute of Origin and Quality (INAO) [*Institut national de l'origine et de la qualité*] is responsible for state labels, such as the organic *agriculture biologique* (AB) mark.

HOW IS BUSINESS CARRIED OUT?

The Grabels market model is only one of a number of SFSCs in France where producers and intermediaries work together. What is interesting in Grabels is the link between open-air market actors and the local authority (Mayor of Grabels), and between consumers and a public research organization (INRA). The market is based on a multi-stakeholder committee composed of the public authority, market exhibitors (producers, artisans and sellers) and some consumers. The committee manages membership applications, helping in understanding and complying with charter rules for proposals of new practices or criteria, and also complying with exhibitors' and consumers' expectations. Authorization for participation (or exclusion) of sellers as members of the initiative is the responsibility of the Mayor of Grabels, who makes the decision on the basis of information and requests from the steering committee.

The market exhibitors, local authority and steering committee have a local and regional scale of operation. The local (public) authority employs five people for this purpose, is legally in charge of the market and is co-owner of the Ici.C.Local trademark (Figure 2). INRA and its joint research unit (UMR) [*Unité Mixte de Recherche Innovation*] (public) are co-owners of the trademark and employ three people (one researcher, one person in the extension service and one in the law department) in the development of Grabels market. They provide the initiative with advice, networking and formalization of the rules and charter. Market exhibitors, of a private nature, manage local production (<200 km perimeter from the market, although most products come from within 40 km) according to the charter. They are composed of 12 farmers, seven artisans and five retailers who mainly sell directly to consumers and have regional sourcing of raw materials and products. They sell a diversity of products such as fruit, vegetables, olive oil, wine, meat, bread, beer, eggs, cheese, chicken and fish. About 30 farmers regularly provide sellers at the market indirectly with products and raw materials (fruit and vegetables, wheat, chicken, etc.), but of local and regional origin. The steering committee is composed of ten public/private actors and has the principal market role of management, control and animation (organization of events, etc.) (Figure 3).

FIGURE 2
Grabels market collective trademark

Source: INRA.

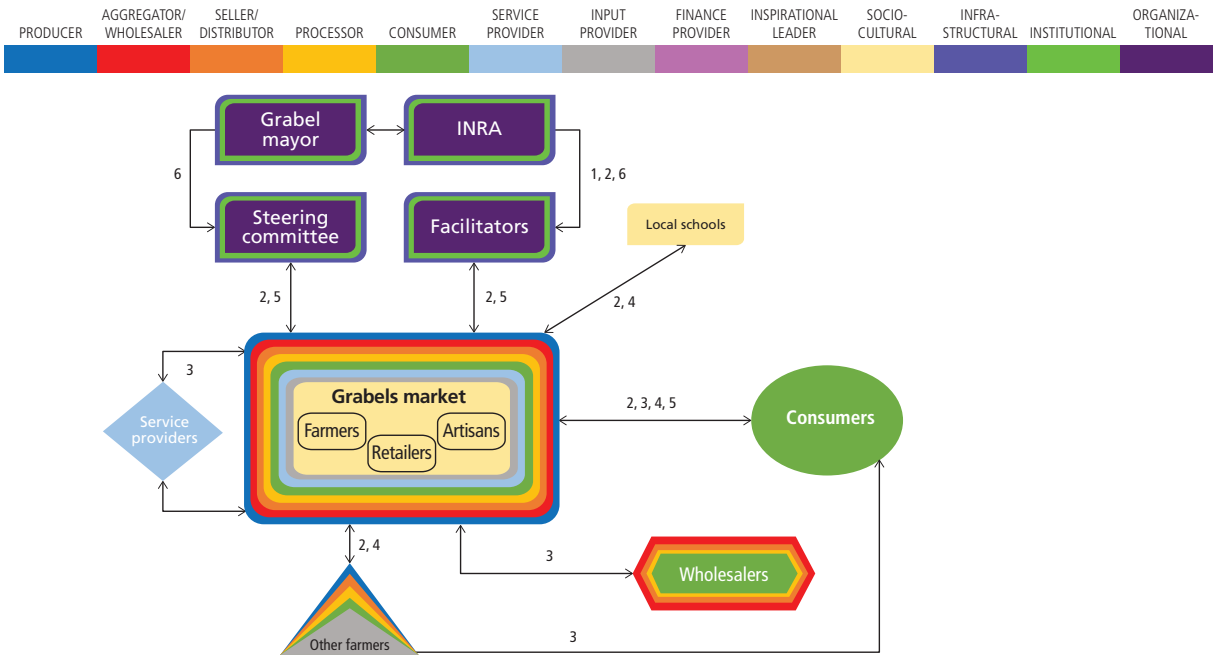
Grabels market also involves about five private service providers (slaughterhouses, mills, etc.) at market level, which are mainly concerned with food processing; some 50 large-scale farmers, who are spot suppliers and provide the market with fruit and vegetables and other products (labelled in orange and purple); about 20 wholesalers who are middle-term suppliers (for products labelled in purple); and, at the local primary school, two teachers who spread and promote the initiative among pupils and their parents. The market supplies about 600 customers each week, representing 1 500 consumers.

Grabels market functions through the 30 percent in taxes paid by exhibitors, 30 percent from public funds (Grabels and Montpellier) and about 40 percent supported by public research funds. Moreover, all participants do voluntary work for the market. INRA and the Grabels local authority paid for protection of the system (labelling system, participatory control and charter) through the national Ici.C.Local trademark (€4 000 for ten years of protection) and for labels, which were given to sellers on an experimental basis (about €2 per label).

The Grabels market business model has the following characteristics:

1. ***Territorial food governance.*** Grabels market is the only market where sellers and consumers can participate in organization and decision-making through its tripartite participative monitoring committee (public bodies, exhibitors and consumers). This participatory system control promotes and

FIGURE 3
Actors in Grabels Market



Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Source: authors' elaboration.

encourages consolidation in food governance for short food chains, including the different parties in agriculture, food and sustainable practices. The initiative creates places where sellers and consumers, in direct contact, can participate in developing the initiative through sharing their perceptions, preferences and expectations with regard to local production and consumption. Particularly active are open-air market events and visits to farms where consumers share their preferences and expectations with the committee; farmers and sellers also grasp the opportunity to share and spread the objectives of the charter and Grabels market. The participatory system gives members the chance to participate actively in decision-making about the initiative.

2. ***Innovative labelling system based on origin.*** From the start, Grabels market set out to be a social and local open-air market offering regional products sourced directly from producers, artisans and retailers. In 2010, in response to requests from consumers about the origin of the products, the multistakeholder committee came up with the idea of different colour labels denoting the origin of products and raw materials, as well as sustainability criteria. This labelling system presupposes that exhibitors are transparent about the quality and geographical and social origin of their products and allows consumers to be better informed and sure about the origin and the sustainability principles of products. The system was guaranteed and protected in 2014 with the national Ici.C.Local trademark.

Charter in Grabels market

Source: INRA.

3. ***Short and long food chains.*** Grabels market principally promotes short local food chains and agricultural production near the market. However, in response to seller and consumer requests about diversification of products, the system and the charter have been modified to extend the scope of suppliers and include products that are scarce locally and come from other regions (>200 km). Moreover, longer food supply chains are allowed, but the quantities of products have to be small and be justified. These products are not obliged to follow sustainability criteria but exhibitors have to be transparent about their origin.
4. ***Social objective.*** The initiative is based on socio-political vision. It was created in response to the need for middle-income consumers in Grabels to be able to access healthy and local food at affordable prices; reinforce social links in a dormant town (including retired people, often isolated); and support local and regional agriculture and economies. Grabels market supports, directly and indirectly, more than 120 farmers and has about 1 500 consumers (local and regional) who often come to buy at the market and share experiences with sellers. The initiative has been recognized as encouraging the participation of the local and public authorities and of consumers in the building of sustainable and local food systems that prioritize local and territorial aspects. The social work of the market is also recognized at schools and between children and parents, as an example of the promotion of local food and sustainable agriculture.

Diverse products with coloured labels

Source: INRA.

5. ***Inclusion limited.*** The extension of the perimeter to 200 km improved the access of farmers, sellers and products to Grabels market and local and regional consumers have also had better access to more diversified products. Moreover, the market is open to small farmers who are not usually allowed to sell in public places and it prioritizes SFSCs. In this sense, such market access challenges the capacity of producers and sellers to deal with a regular local, fresh and diversified supply. It is not always easy: some experience food shortages while others have to find alternative outlets when food is no longer fresh (which may produce food waste).
6. ***Promotion of partnerships.*** One of the most important objectives of the market (and the trademark) is to encourage partnerships between producers and intermediaries. Moreover, inclusion of public bodies enables the initiative not only to have financial support but also to create spaces where actors can be in direct contact with each other and learn from their experiences. To encourage consumers, the initiative takes their expectations into account and responds to their concerns and requests. At the same time, consumers learn about public policies and projects and appreciate their social and economic rights. The initiative thus develops partnerships and creates a bridge between the local authorities and the community. The partnership created with INRA allows the community to participate in research projects that aim to strengthen the social, territorial and economic dimensions of food systems. The relationships between community and exhibitors encourage regular and direct communication.
7. ***Valorization of intermediaries.*** Grabels market evaluates reselling through the charter and the labelling system. Reselling is understood by small farmers not to be competitive (or represent rivalry) but to be a collaboration among producers, intermediaries and artisans. Intermediaries (farmer resellers and retailers) must personally know the producers from whom they obtain products or raw materials, and must be able to vouch for them. This valorization supports small farmers and processors, who may not have the possibility of participating in the market, and improves access to local products as well as extending the range of products.

8. ***Strong social and territorial sustainability.*** Globally, particularly regarding the social and territorial dimensions of sustainability, the different actors perceive Grabels market to be sustainable. The market responds to certain specific needs of the territory, to which it adds value and gives the community access to a seasonal and diversified diet. In addition, it enhances social relations between actors who would not normally be in direct contact with each other and gives "ordinary" citizens a societal vision of agriculture and food systems. Results are less good with regard to the environmental and economic aspects of sustainability: consumers perceive the price to be fair but do not know whether the market is really profitable for sellers or how the added value is distributed between sellers and their suppliers. Moreover, consumers assume that, although the environment is a concern of the market, it is not a major one. This assumption may be because they do not have a clear knowledge of the charter and its criteria. Both sellers and consumers do not know whether an environmental evaluation of the market and/or its results have been carried out.

Diverse products with coloured labels

Source: INRA.

HOW ARE MARKETS CREATED?

Where do production inputs come from?

Farmers involved in Grabels market need different kinds of inputs: (i) basic inputs for their own production (seeds, plants, fertilizers, animals, etc.), which have to respect the low-input agriculture maxim; and (ii) products from other sources to complete their range. The Grabels market is stricter than other markets with regard to inputs, since it focuses on seasonality, which implies that producers grow a large range of species, varieties, seeds and plants in order to propose diversity while respecting the seasons. This diversity of inputs may be difficult to find, especially in arboriculture: nursery gardeners prefer large producers and small producers often have difficulties in finding small quantities of different plants. When reselling, farmers need to find products from colleagues who respect the criteria of the charter and whom they know personally. Procurement by semi-wholesalers has to be limited. Moreover, products have to be fresh, which often implies stock shortages, a great deal of transport or losses.

For producers, particularly those who use the orange label, purchasing products from other regional producers gives them benefits such as convenience and proximity, regularity, diversity, biological good-quality products and time saving.

Where do products go?

Grabels market products and services are mainly allocated to give its low- and middle-income inhabitants and visitors the chance to buy fresh and good-quality products while also supporting local small farmers. It represents for farmers, artisans and retailers a large part of their outlets (from 25 to 60 percent of turnover). However, farmers also sell their products through diverse SFSCs such as open-air markets, road stalls, fairs, restaurants and nearby grocers (Table 2). These markets recognize the agro-ecological quality of the products but, apart from road stalls, they are not clearly designated as "short chains" supporting local agriculture (some open-air markets mix farmers and retailers in long chains and some restaurants buy only a few products locally).

Some Grabels members sell their products to semi-wholesalers or cooperatives. For egg retailers, for example, Grabels market is a small outlet, so they mainly have to sell to wholesalers at

TABLE 2
Where can similar Grabels market products be found?

Market channel	
Traders	14% conventional
Wholesalers	
On farm	86% agro-ecological
Grabels market	
Supermarkets	
Road stalls	
Other open-air markets	
Restaurants	
Nearby grocers	
Cooperatives	
Events (food fairs, festivals)	
Own consumption	

Source: authors' elaboration, based on interviews.

a lower unit price. However, these outlets are decreasing and are not conducive for sellers. as far as Grabels is a success and prompted them to increase the part of short chains in their marketing strategies.

Compared with other market channels, Grabels market is particularly appreciated by sellers for three main reasons: the friendly relations between consumers and sellers; an increase in loyal and faithful clients over time ("they come even when it rains"); and the only market in which sellers can participate in the organizational and decision-making processes through the committee. Farmers consider their least preferred market channels to be wholesalers and supermarkets. Selling products in these markets channels represents disadvantages for farmers, including low prices, constraints on quantities and little appreciation of quality.

What marketing strategies are used?

One of the principal marketing strategies promoted by Grabels market to diversify its products and reach the greatest number of consumers is to enable different types of actors to participate with their local and regional products, or national and imported products such as lemons and locally processed products such as coffee, possibly fairtrade.

Participants in Grabels market appreciate the coloured labelling system and, thanks to this innovative system, exhibitors are more able to valorize their work. Some have been prompted to diversify their production in order to have more green-labelled products (own production) on their

FIGURE 4
How is quality communicated?

Source: authors' elaboration.

stalls, while others have developed new personal relations with similar producers in the region in order to increase their orange-labelled products. In this sense, the market promotes the transition towards agro-ecological principles.

Challenges or opportunities for market access?

Consumers visiting Grabels market find prices too high for specific products such as green beans and fish. However, this no longer limits market access. Products are generally considered affordable and prices do not limit consumers since they recognize a good quality/price ratio. They have learned to consume less quantity but of better quality, and to wait for products in the harvest season since early fruit and vegetables are often more expensive. There is constant gossip about high prices in the town (notably by opponents to the mayor), which may prevent new customers from coming. Consumers felt that, despite efforts to diversify production, certain products such as oranges and bananas or exotic products are missing. The main challenge for exhibitors is to manage their production and relations with regional colleagues in order to be able to offer a diversified range of products respecting the charter throughout the year. They sometimes tend to propose more purple-labelled products than allowed by the charter because it is easier.

HOW IS VALUE CREATED?

What are the characteristics that give value?

The qualities of agro-ecological products most requested by intermediaries and consumers concerned environmental and physical attributes. "Taste" was top of the list (Figure 4), followed by "fresh", "local", "organic" and "low-input" characteristics. Grabels open-air market promotes direct sales of fresh and local products from short supply chains. A basic guarantee of quality for

the majority of consumers is that products are "of French origin". Consumers also requested products from artisanal, homemade and traditional production and methods.

Creating shared value?

The Grabels market has been established as a place where exhibitors and consumers can discuss qualities and preferences through direct contacts. Actors (9 to 14 respondents) consider direct contact to be the best way of communicating the qualities mentioned above. Direct contact with consumers not only communicates qualities (and prices) but also helps to diffuse and promote the principles of the charter and its sustainable practices. Furthermore, sellers get a better estimation of their products. Consumers (four to six respondents) emphasized that direct contact with sellers and the knowledge that the initiative has a committee controlling market activities and qualities contribute to increasing trust in the agro-ecological qualities of products. In this sense, direct relations and formal management complement each other; the scepticism in the 2010 crisis – which led to the labelling system – showed that direct relations are not sufficient for some consumers, insofar as many ordinary consumers do not speak to sellers or ask questions and thus may develop misgivings. Market facilitators stressed that some consumers give feedback through the committee or their consumer representatives.

The labelling system – including the charter, labelling by colour and the Ici.C.Local label – is another important way of communicating the quality of products in the market. Some sellers and consumers also use the Internet and social networks to communicate about supplies and relative events (such as the arrival of early strawberries or asparagus). Other means are television shows, local newsletters and articles in newspapers; product tasting; and through networks of family and friends.

The Grabels market pricing system is mainly based on a calculation of production costs (input prices, taxes and labour) but also on the observation of other suppliers (supermarkets, colleagues). Intermediaries shape their market prices on the basis of supplier prices. In general, prices are affordable and are established to support small farmers and retailers. The steering committee regularly compares market prices with those of other market channels and provides feedback to sellers and consumers. Product prices are principally communicated through labelling. They may also be discussed and negotiated directly, especially when prices seem to be too high. Nevertheless, consumers are not very involved in price negotiations and generally accept the prices charged by producers and sellers because they have faith in the quality and price system managed and controlled by the committee. All stakeholders think prices are fair, except for some specific produce such as fish. In Grabels market, consumers find excellent products at fair prices while supermarket prices may be the same or even higher for products of lower quality. Sellers perceive prices as fair, with regard to the work they do, and facilitators also consider prices to be fair as long as they respect the charter. According to 13 out of 14 respondents, the fairest prices are those of direct sales in the Grabels market channel while wholesale market, restaurant and trader prices are considered to be the least fair, particularly because of their high margins.

TABLE 3
How fair do actors think prices are?

	On farm	Direct sales
Mean*	3.92	2.5
N	13	4
Standard deviation	0.493	1.732

* 1= very unfair; 2 = unfair; 3 = neither fair nor unfair; 4 = fair; 5 = very fair.
Source: authors' elaboration.

SCALING UP, WHERE TO NEXT?

Important changes and events have taken place in Grabels market since its creation in 2008.

1. ***An updated labelling system.*** The labelling system with three colours (green, orange and purple) denoting origin was launched in 2010 to provide information and a guarantee to consumers about the geographic origin of products, as well as about the sustainability criteria behind the products. This labelling system was protected in 2014 by the national Ici.C.Local trademark from local system and property of Grabels and INRA. It has improved appreciation of products, improved the cooperation of sellers with local producers and has engaged all exhibitors in market transparency, as well as improving their practices from an agro-ecological perspective (diversification, reduction of inputs, relocation of supply, etc.). Since 2014, at the request of the artisans, the labelling system has been extended to include and evaluate processed food. There can now be

a combination of green, orange and purple (the same colours as for fresh products) on the same label, with the processor (on the right) and the origin of the raw materials (on the left).

2. ***Demonstration of participatory quality control.*** The committee, participants and consumers are all involved in control and respect of the charter. With a participatory approach and using the charter, the participative monitoring committee and the Mayor of Grabels can pinpoint any producer or seller who is not following the rules and needs to be excluded from the initiative. To date, three sellers have been excluded for not respecting the charter's principles. In particular, they were cheating consumers by selling false products that were not local and not fresh raw materials.
3. ***Modifications to the charter.*** The charter has been revised and modified twice to respond to the challenges, requests and needs of participants. The first revision was in 2010 to include respect for seasonality and banning GMOs in animal feed. The second was to enlarge the perimeter of sourcing to 200 km in order to include more products such as meat, eggs and cheese that are scarce in the region. These adjustments have allowed the initiative to evolve and fit the needs of participants and the community.
4. ***Market expansion.*** The number of seller members has gradually increased, together with the number of faithful customers (the same people each week at the same stall) – more than 600 customers now visit the market regularly.

The changes mentioned above have strengthened the initiative by giving it greater visibility at regional and national level. At regional level, the participatory approach, which includes the local authority as an important actor, and the transparency principle based in the charter, have encouraged the interest of customers and citizens in nearby towns and inspired the creation of similar initiatives. These changes have also had an important influence on consumers' purchasing habits, prioritizing high quality, seasonal and local products. The fact that consumers can be in direct contact with exhibitors has strengthened trust and created a friendly atmosphere that facilitates the spread of the initiative's vision and principles and has reinforced the participation of the community in political decisions. Thus, the formal mechanism

Combination of colours (orange and green) on the same label

Source: INRA.

(charter, committee, control) has also played an essential role in building up trust, especially from "ordinary" consumers.

In scaling up Grabels market, the local authority (Mayor of Grabels) and public research (INRA) involved in the initiative want to keep the market people-friendly in order to maintain its authenticity, a place where people feel comfortable and where peer pressure is effective. Scaling up thus implies diffusion of this kind of initiative to other municipalities rather than expansion in the size of the market. To do this, the initiative needs to: (i) facilitate research collaboration by observing prices, encouraging regular inquiries from sellers and consumers to understand their requirements and problems, and explore innovations that make the market different from others; (ii) report the initiative in regional, national and international spheres, emphasizing the pride and attachment of sellers and consumers; (iii) improve the participatory monitoring system by enrolling more members in social control.

The Mayor of Grabels played a crucial role in entrusting the collegial committee to manage the market and experiment with a new business model. Collaboration with a local research team (INRA) established the socio-organizational ("living laboratory") innovation, recognition of the system and protection of the trademark. The market and trademark have raised interest in different media (articles in local and national newspapers, television shows, etc.). However, some institutions and organisms consider the initiative to be in concurrence with regard to their own tools, trademarks and policies, and are blocking the diffusion of Ici.C.Local. Some of them acknowledge that they especially contest the two main principles

of the initiative: transparency and participation. They want to keep control of their businesses and do not want consumers to be able to see what they do. Nevertheless, despite this opposition, the system – which complements others rather than competing with them – is spreading throughout France and even in Europe, promoted by local authorities, associations and groups of farmers. Ici.C.Local is considered an exemplary case by the Directorate-General of the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-DG AGRI).

Akmola Traditional Dairy Producers[1], Akmola, Kazakhstan

INTRODUCING THE INITIATIVE[1]

Today, in Kazakhstan, small- and medium-sized households are the main producers of environmentally friendly products and are focused on preserving traditional farming methods. With its vast land areas, the Akmola province is one of the main grain-producing, cattle-breeding and dairy producer regions in Kazakhstan. Its agriculture is characterized by the production of vegetables, wheat and the use of the land as grasslands for feeding livestock such as cows, horses and sheep for the production of milk and milk products. The villages of Akmola province, composed of small- and medium-sized farms (about 3 979) and households, are highly dependent on the production of local livestock. Their incomes and financial stability depend upon the production and distribution of dairy products. The farm dairy business mainly uses traditional methods for cattle breeding and crop farming; food products are processed privately by manual means and sold at local markets and farmers' markets.

Processing of milk production in Kazakhstan is in the hands of small processing plants (<3 000 tonnes/year) –60 percent of the total number of processing plants in the country are small plants. Akmola province has about 30 plants (20 percent of the national total) and high participation in processing (FAO, 2011).[2] However, the production of natural ecofriendly dairy and meat products requires heavy investments from local and small farmers since it involves manual labour. This has generated an increase in low-quality dairy produce in Kazakh cities because large enterprises prefer to use cheaper raw materials such as chemical additives and artificial milk powder in the production processes. Many people in Kazakhstan fall into the trap of buying these conventional products, which are readily available in supermarkets and are cheaper than organic ones.

In 2008, to meet community demand for high-quality and traditional dairy products, the Akmola Traditional Dairy Producers (ATDP) initiative was created. ATDP is a community initiative made up primarily of women from the village of Karabulak in the northern region of Akmola. The community was organized in 2008 by the Jer-Ana Astana (JAA)

Key facts

Country: Kazakhstan
Region: Akmola
Year initiative created: 2008
Producers: 150 households
Consumers: 410 members
Different types of actors in the initiative: 4 to 5 (producers, consumers, NGOs)
Average number of links in the supply chain: 2.5
Core products: dairy products, vegetables
Geographic market size: local and regional
Number of market channels: 5
Type of market system: diversified market network
Definition of agro-ecology:

Challenge for market access: the lack of reliable market channels and risks to quality because of a lack of good logistics
Main lesson: locally organized events that offer free food and product education as a way to promote environmentally friendly products and preserve traditional farming methods
Opportunity for scaling up: growing consumer awareness for natural, healthy and ecofriendly dairy food

[1] This factsheet was written by Alejandra Jimenez, based on data collected by Aida Baimakova and Victoria Smyalkova in 2015. A total of nine interviews were conducted with two producers, two intermediaries and five consumers.

[2] FAO. 2011. *Dairy development in Kazakhstan*. Rome.

rural community Non-governmental Organization (NGO), the only active NGO that supports and represents the interests of rural residents in Kazakhstan, and by the Akmola Slow Food Convivium. The objective of the initiative was to unite small- and medium-sized farmers and households that are passionate about their work and safeguard traditional methods of farming and processing. The initiative was originally composed of a group of ten farmer families, but the number of participants has now risen to 410, including men and women rural residents, young activists and volunteers.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

Sustainable economic activities are promoted and traditional production methods developed with the objective of ensuring community welfare. The financial stability of the households and farms in the villages of Akmola province is highly dependent on the production and distribution of milk and milk products. These products are processed on farm using manual methods and traditional tools. The only mechanized equipment available is a milk-skimming machine, which is used for making homemade sour cream. The other products are exclusively manually processed. Small- and medium-sized households are the main producers of environmentally friendly products, focused on preserving traditional farming methods.

Farmers are actively using "green conveyor" technology. This facilitates restoration of degraded soil and provides high-quality green fodder for local dairy farms. Independent farmers and small- and medium-sized farmers also adhere to a traditional pasture system, where livestock graze on fresh grass for most of the year, receiving grass hay, straw, silage, some chopped grain and supplementary feed during the winter. Farmers in this initiative produce naturally and environmentally clean food, not polluted by genetically modified organisms (GMOs), which is free from chemicals, additives, adulterants and uses only fresh raw materials.

Through their extension activities, farmers promote agro-ecological products:

- by hosting charitable events and exhibitions, organized by Slow Food Akmola, to promote ecofarming production and new products, with the support of the Agriculture Department in the town of Stepnogorsk;
- by developing ecological projects and community activities with the support of several NGOs and state authorities;
- through participation in ecology-themed gatherings at schools.

Artisanal and manual processing of products, Karabulak, Almaty region

Source: Slow Food Akmola, 2016.

IS THERE AN ENABLING ENVIRONMENT?

In Kazakhstan, there are a number of initiatives that provide support to rural residents who are developing projects and promoting ecological products.

- Currently, Kazakhstan rural areas are represented by the JAA rural community NGO, which supports and represents the interests of rural residents and is involved in development of the communities. JAA, located in the village of Karabulak, unites 120 homes and 12 farms and several projects have been implemented since its inception in 2008. JAA is the main NGO in Kazakhstan that gives voice to and advocates for the interests of the country's small- and medium-sized farmers.
- In 2015, the Kazakhstan Government launched the Made in Kazakhstan campaign addressed to the population and socio-economic sectors involved in domestic production. The principal objective of the campaign is to support domestic producers through the promotion of local and domestic products among Kazakh citizens. The campaign aims to reawaken nationalistic feelings in consumers, promoting local products as products with high-quality attributes.
- The National Security Law introduced the concept of food security in the list of national interests, including sustainable development of the national agro-industrial complex to preserve state food sovereignty. It also introduced the concept of *ensuring* food security, to provide a regulatory effect on the market in the event of imbalances between supply and demand for food.

ATDP women farmers in Karabulak village, Almaty region, Kazakhstan

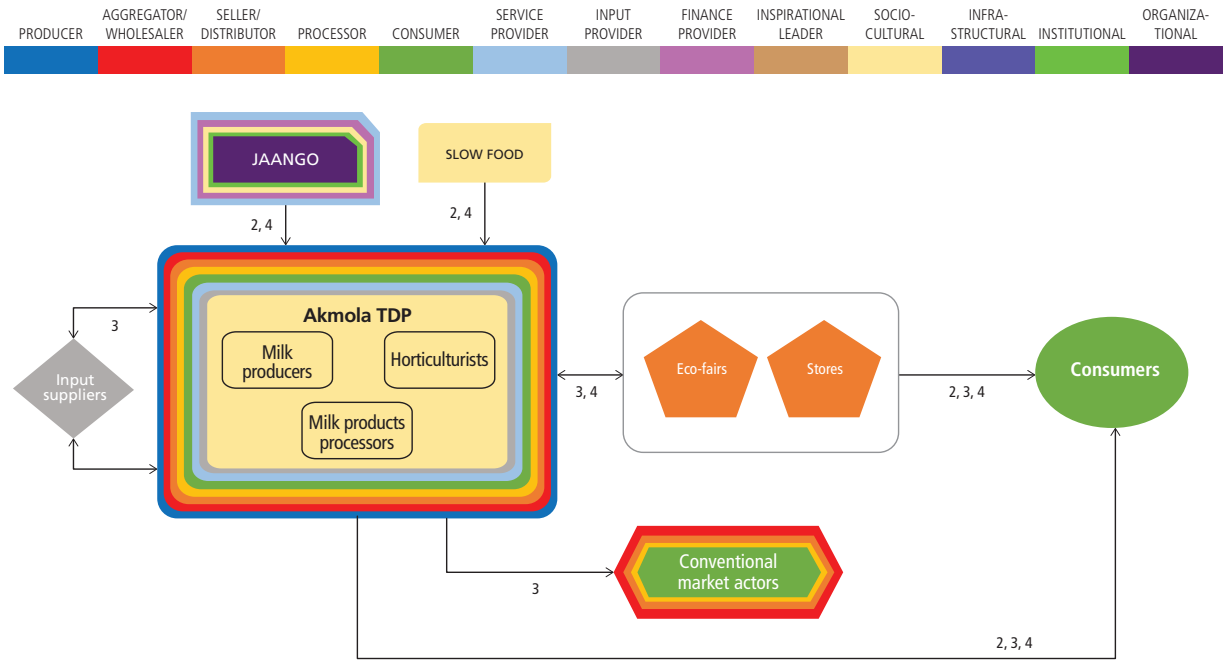
Source: Slow Food, Akmola.

- The National Law on State Material Reserve gives the Government of Kazakhstan competence to determine a list of organizations involved in the production of material values of the state material reserve. The provision governing impact on the market enables it to determine volume and prices.
- The National Law on State Regulation of Development of Agriculture and Rural Areas delegated responsibility to the Ministry of Agriculture and to local area executive bodies for compulsory monitoring of food security in relation to domestic food resources.
- In 2009, the National Law on Amendments and Addenda to Some Legislative Acts of Kazakhstan on the issues of food security was ratified. The law is aimed at identifying measures of state support and state regulation in the field of food security.
- Farmers, supported by the Slow Food Akmola Convivium, organize exhibitions and events with the objective of reminding communities about the importance of preserving their traditional culture and promoting responsible attitudes towards natural resources and the environment. These events include on-farm visits, traditional cookery demonstrations, exchange of knowledge and charitable functions.

HOW IS BUSINESS CARRIED OUT?

ATDP is composed of women from the village of Karabulak, in the northern province of Akmola (see previous photo). The community was set up in 2008 and today involves not only women who make traditional dairy products such as *kumys*

FIGURE 1
Actors in the ATDP initiative



Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Source: author's elaboration, based on interviews.

(fermented mare's milk), *qurt* (dried curd milk), *ayran* (yoghurt), *kaymak* (sour cream), *irimshik* (cottage cheese), *kospa* (curd dessert) and other dairy products, but also women who organize and participate in various types of events and seminars. JAA, as a key intermediary in capacity building for good agricultural practices, documentation and access to subsidies, together with producers (about 150 households and 12 farmers in the farmers' market) are the principal actors in the initiative (Figure 1). The public sector facilitates space for the farmers' market and about 30 consumers are involved in responsible and traditional consumption. Revenue for the initiative comes from on-farm sales of agro-ecological products to neighbours and friends, local markets and farmers' markets.

The business model has the following characteristics:

1. ***Community embeddedness.*** The initiative is integrated into the Kazakh community and concerns Akmola province. Since its inception, it has worked for the community, families and small farmers and community members are highly involved. They participate in management issues, agriculture and veterinary practices and matters such as common pasturing of livestock in summer and community work in cultivating fodder, organizing mini-training, and training events on nature and agritourism. Since the initiative was created as a community effort, its vision was designed to respond to the specific needs of the community, such as recognition for traditional production and for healthy dairy products that use natural inputs. Furthermore, it is integrated into the community by building networks of community cooperation and supporting citizen initiatives in the production and commercialization of dairy products. The community participates not only in production and marketing activities but also in social activities such as events for farmers, activities for integrating retired people and activities with schoolchildren. These activities are intended to draw attention to villagers' problems.
2. ***Participatory decision-making.*** The spaces created by the initiative are collective efforts and all parties participate actively in decision-making. Producers, processors and consumers are highly involved in the governance of the initiative, helping the organization to decide legal and marketing issues and preparing documents for participation in public programmes. Farmers and consumers are active agents in the creation of discussion spaces such as meetings, training, on-farm visits and in activities such as exhibitions and events that enable ideas to be formulated about product quality, traditional practices and governance of the initiative.
3. ***Diversified diets.*** The initiative was purposely set up in order to ensure that the greatest number of people can access high-quality food that contributes to a diversified diet to meet their cultural needs. Families share with others their own well-kept recipes for dairy products, contributing to maintaining traditions and also to diversifying dairy-based food.
4. ***Oral agreements.*** The initiative manages oral agreements with intermediaries. Specific delivery times are specified as being important in these agreements.
5. ***Inclusivity.*** The initiative promotes the participation of small- and medium-sized farmers and households. Women are important participants and are involved in agriculture and traditional dairy production as well as in the organization of activities that promote the initiative and the integration of other farmers and communities. The initiative works with families, community groups, students and children with disabilities who are all considered to be important in carrying the initiative on into the future and to achieving a convergence with nature, healthy and traditional food and sustainable food systems.
6. ***Conservation of local traditional methods.*** The initiative is actively involved in community activities and encourages residents of rural areas in the communities to adopt healthy lifestyles and to preserve traditional local gastronomic culture. Exhibitions and tasting events are organized to remind the community about the importance of preserving the local traditional cuisine and farming methods.
7. ***Strong cultural, economic and social sustainability.*** There is strong coherence in perception of the social, cultural, environmental and economic performance of the initiative between producers and consumers (Figure 2). This coherence may be a result of the strong and sustainable networks and quality links built around the

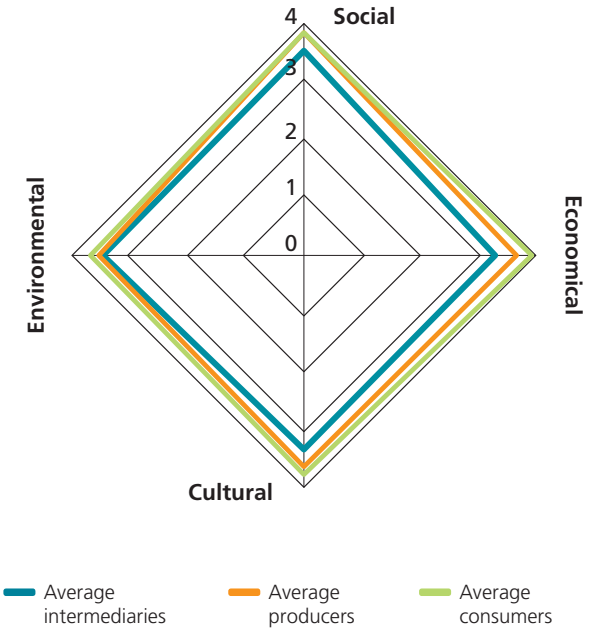
production and trade of Akmola products and the high level of participation of the community in social and cultural activities promoted by the initiative. Intermediaries are less optimistic about the sustainability of the initiative, especially its economic performance. This perception can be linked to their relatively lower participation in discussion spaces and also to loss in product quality (caused by lack of adequate transport and long distances from farms to markets), which generates reductions in incomes.

HOW ARE MARKETS CREATED?

Where do production inputs come from?

Smallholder producer and processor production depends on what can be found as inputs in local areas. Small- and medium-sized farms feed their livestock with grass hay, straw, haylage and some chopped grain during winter; during the other seasons, especially from April to October, livestock graze on pastures and fresh grasses. It is possible to buy inputs such as hay and feed from others farmers in nearby villages, when farmers' own production and storage is not sufficient. Farmers also use wheat bran as concentrated animal feed, which is acquired in town and through traders in the villages.

FIGURE 2
Perception of sustainability (n=8)



Source: authors' elaboration.

TABLE 1
Where can Akmola traditional dairy products be found?

Market channel	
Traders	10–20% conventional
Open-air markets	
Processors	
On-farm sales	80–90% agro-ecological
Direct sales	
Farmers' markets	
Stores	
Own consumption	

Source: authors' elaboration, based on interviews.

Where do products go?

Selling fresh dairy products is one of the main sources of income for small- and medium-sized farms (small households with two or three head of livestock) in Akmola; however, agro-ecological markets for organic fresh milk products are not well developed. Principal production uses are for home consumption and sales to friends and neighbours, and to markets in the towns and villages. Akmola producers allocate 10–50 percent of production to their own consumption and more than 50 percent to other market channels, especially direct sales. Vegetables, and milk and subproducts such as butter, sour cream, cheese and desserts are hand processed privately for personal consumption or sold at local markets in nearby towns and cities and at local farmers' markets at weekends. Selling directly from the farm provides farmers with benefits such as good prices and regular customers while farmers' markets in towns enable farmers to approach consumers directly. Since these markets are not always reliable, and in order to ensure family income, producers and processors also allocate some production to conventional market channels such as the dairy processing plant, traders and open-air markets in the nearby town of Stepnogorsk. ATDP also has access to other market channels (Table 1).

What marketing strategies are used?

Producers do not have concrete alternatives for market channels where they can sell products and they decide when and where to sell depending on the season and on the demand.

Principal marketing strategies used by the initiative are demonstrations and events organized by farmers with the support of Slow Food Akmola. These events, where free food is offered

by local farmers, are established as social spaces where not only sales and product advertising take place, but also where the culture and customs of the community are practised and reinforced. The events have the objective of maintaining the traditional cuisine and culinary techniques, promoting sustainable and ecofriendly production practices and encouraging environmental responsibility. The initiative promotes on-farm visits, traditional culinary demonstrations and the exchange of knowledge between farmers and consumers in the region about the different ways of making dairy products.

Challenges or opportunities for market access?

Small towns and villages do not have speciality supermarkets and stores that are willing to sell homemade dairy products from local farms. A lack of reliable market channels is the principal challenge identified for gaining access to agro-ecological products in Akmola. Market stalls at urban markets are taken up by traders, and farmers find it difficult to participate in these markets both because of their low quantities of produce and because the current participants have been in place for years. In addition, small producers cannot participate in tenders for the distribution of milk to local educational, medical or other public institutions principally because of the short production lead times and the strict legal and standard requirements needed to tender. Specific packaging, certification and other requirements are not suited to small farmers. Low prices in some market channels represent another challenge: small businesses and households can sell their products on farm and through private sales (on average at US$0.77/litre/cow milk), at local markets in villages at low prices (in farmers' markets at US$0.66/litre/cow milk) and also have the option of selling to intermediaries, including dairy factories such as the one in Stepnogorsk, at the lowest price (US$0.28/litre/cow milk). Consumers also reported not knowing where to find high-quality natural products. They may be found in city markets, but in rural areas the options are limited to traders and shops that sell poor-quality products and products with chemical additives, which are normally also expensive.

Another important challenge for accessing markets relates to the effects of logistics on milk quality. Long transportation distances and the

Demonstration in Karabulak village, Almaty region

Source: Slow Food, Akmola.

FIGURE 3
Characteristics of agro-ecological products

Source: authors' elaboration.

FIGURE 4
How is quality communicated?

Source: authors' elaboration.

isolated location of family farms prevent the sales of products in markets and also affect the physical and chemical qualities of the milk products. Because of the long distances and the lack of cold chain transport, products reach consumers and intermediaries in suboptimal quality conditions.

HOW IS VALUE CREATED?

What are the characteristics that give value?

Visual and physical attributes were relevant in qualifying the agro-ecological products demanded by intermediaries and consumers. The characteristics most required in markets were a good "smell" and "taste" (Figure 3). All stakeholders interviewed (nine respondents) wanted products with optimal visual appearance, physical form, smell, taste and colour. These qualities were requested more at farmers' markets and city markets.

In on-farm sales, consumers are not so demanding about the physical attributes of products, since they base their purchases on trust and reputation of the farmers. Visual and sensorial attributes are often important for a first purchase from a specific market channel, such as farmers' fairs/markets. However, once the product has been tasted and its quality assessed by personal experience, trust and ecological qualities are the characteristics most used to qualify agro-ecological products, as stated by one of the consumers interviewed: "At fairs, products are usually sold by the producers themselves. Products taste better and more natural. They have quality, they are natural and prices are correspondingly high".

Creating shared value?

Product quality is principally communicated through personal contact between producers and customers (78 percent of respondents, Figure 4). Producers share information about traditional production practices and also share their food recipes with the community. On-farm visits and direct sales are the principal spaces where discussions and demonstrations of the quality of products take place and where consumers can obtain more information to facilitate their purchase decision. As one of the producers stated: "… buying directly from the farm, you can personally see the production, the quality and participate in a master class …". Product quality is also transmitted through the events held by Slow Food Akmola. Producers and consumers participate in discussion spaces at meetings, events, workshops, charity festivals, conference speeches and promotion. The initiative also uses media such as the Internet and other social media, fairs, conferences, radio and television, and producers often communicate with consumers via e-mail.

TABLE 3
How fair do actors think prices are?

	City market/ intermediaries	On-farm sales	Fairs
Mean*	2	3.3	3.75
N	8	3	4
Standard deviation	0.925	0.577	0.5

* 1= very unfair; 2 = unfair; 3 = neither fair nor unfair; 4 = fair; 5 = very fair.
Source: authors' elaboration.

Prices are principally communicated during on-farm visits. Direct contact among producers and consumers, friends and others is an important way for members of the initiative to learn about market prices. Prices are negotiated strongly between producers and consumers. Even when consumers obtain low prices by buying directly from producers, most of them use negotiation processes in pricing. In fact, the fair price is higher than the price at which certain intermediaries set prices for producers. Markets with intermediaries are considered by producers to be unfair, mainly because some products sold there are of low or misleading quality and are also sold at high prices. Actors perceive prices to be fair in on-farm sales and at farmers' markets, because products are sold directly by the producers themselves, they are of high quality, have more taste and their physical appearance is good. Products are also considered to be natural, genuine and ecofriendly.

SCALING UP, WHERE TO NEXT?

The small farmers in Akmola have experienced a number of important changes in the initiative since its inception.

1. ***Better visibility of producers.*** The initiative is promoting a better visibility and participation of producers in marketing activities. Producers are more likely to join in activities such as fairs, (one-day) tours to villages, promotion of local ecoproducts and visits to farms. These activities help to consolidate relationships with consumers and build trust in ecological products.
2. ***Expansion of the consumer base.*** The activities promoted by the initiative have rendered the services and products of farmers and their agro-ecological activities more visible to others in the community. This has generated an increase in the number of consumers interested in purchasing products.

Consumers in the surrounding villages are becoming more interested in ecological products and are increasingly coming to farms and participating in local activities such as the charitable events organized and sponsored by Slow Food, where farmers offer free food to consumers in several cities and villages in Kazakhstan. At these events, urban residents have shown to be more interested in buying organic farm products than products from supermarkets and other conventional markets. The creation of these new spaces for dialogue has strengthened the contact between producers and consumers.

3. ***Inclusion of new producers.*** The good management of the initiative and the promotion of local products are attracting a growing number of new producers. There are 12 current farmer members but about 18 farms wish to join the initiative, so there is clear interest in scaling up by increasing the numbers.
4. ***Preservation of traditional production.*** Community activities and initiatives have been developed by farmers to remind the communities of the importance of preserving traditional farming methods and traditional local gastronomic culture. Families each share their recipes based on local products.

These changes have strengthened the initiative by giving visibility and recognition to local production. Growing consumer awareness for natural, healthy and ecofriendly dairy food provides a driver for continuing agro-ecological and traditional production methods. Consumers report better knowledge about the quality of products and a responsible attitude towards the environment.

Maputo Earth Market[1], Mozambique

INTRODUCING THE INITIATIVE

Food supply chains in Mozambique are currently controlled by a small group of corporations that dominate the food system and have created modern and homogeneous patterns of production and consumption. High-input food systems are rapidly becoming established as the only way to produce and earn income in the agricultural sector, which destabilizes the local economy and the relationships between producers and consumers. This subsequently has negative effects on food and nutrition sovereignty and security in the country.

In 2013, the Maputo Earth Market (MEM)[2] was created to address this situation. It was the first Slow Food market in Africa, and was located in Maputo, the capital of Mozambique. MEM is the result of a partnership between the Italian Non-governmental Organization (NGO) Gruppo di Volontariato Civile (GVC) (civil society), Slow Food (Slow Food Muteko-Waho Convivium) and the NGO ESSOR.[3] The initiative has an agro-ecological approach to market creation and food supply, based on the principles and practices that promote small-scale agro-ecological producers, closer ties between farmers and consumers and traditional consumption habits, prioritizing short distribution channels, added value, local products, food quality and movement of goods.

The model places importance on the work of a group of small-scale producers who, despite their socio-economic difficulties, continue to produce local and traditional food without agrochemicals. MEM is organized by 14 producers, motivated by the chance to promote and sell highly valued

Key facts

Country: Mozambique
Region: Maputo
Year initiative created: 2013
Producers: 14
Consumers: participants in the monthly Maputo Earth Market
Different types of actors in the initiative: 5 (NGOs, producers, consumers)
Average number of links in the supply chain: 1
Core products: fruit and vegetables, processed products and local gastronomic products
Geographic market size: local and regional
Number of market channels: 7
Type of market system: interactive market network
Definition of agro-ecology:

no_agrochemicals

Challenge for market access: scarce funding and public sector support for creating new market channels
Main lesson: the creation of market channels where producers and customers are in direct contact promotes the local economy and urban and peri-urban family farmers
Opportunity for scaling up: the initiative has created spillover effects and other towns are interested in opening their own markets

> "MEM has been more than a sales outlet, it is where producers and consumers come together in a closer relationship, where links of trust are created … in which each product bought has a shared life story."
>
> *Slow Food member.*

[1] This factsheet was written by Alejandra Jimenez, based on data collected by Stelio Miguel Joaquim and Emanuele Dughera in 2015. A total of five interviews were conducted (four producers and one intermediary).
[2] http://www.earthmarkets.net/network/maputo
[3] ESSOR is an NGO that carries out development projects in Portuguese-speaking and French-speaking countries, particularly Brazil, Mozambique, Cape Verde, Guinea-Bissau and Chad. http://www.essor-ong.org

products collectively; make direct contact with consumers to explain why what they offer is different from the conventional market; listen to expectations and products sought; and promote more awareness of responsible production and consumption.

A key factor in the creation and success of MEM has been that of creating interest among other organizations (both public, non-governmental and private), such as Africarte[4] (civil society) and Maputo Municipal Council (CMM) (public), in developing the local economy. These organizations provide support by creating other markets that encourage clean, good, healthy and fair produce, and that are also attended by MEM producers. This spillover effect is one of the reasons why the initiative has spread to other areas outside its area of origin.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

MEM is frequented by urban and suburban family producers who are concerned about their health and well-being. Producers consequently apply sustainable production practices such as techniques to preserve and improve soil fertility: crop rotation, intercropping, production and application of organic compost and biofertilizers, raised-bed growing, use of land cover, planting live barriers and combating erosion. They also practise crop diversification, including planting fruit trees and other species, as a space management strategy. This environmental strategy is a market guarantee, because the diversification of plants enables farmers to diversify the number of products they can sell. The technique has enabled them to cultivate a wide range of products, including potatoes, onions, carrots, cauliflowers, spinach, aubergines, tomatoes, arugula, radishes, yams, string beans, Chinese cabbage, mustard and parsley.

Within this strategy, to tackle pests and disease, the farmers have chosen to produce and apply natural and mineral defences or biopesticides (e.g. chilli [*Capsicum*], margosa or neem [*Azadirachta indica*], onion and garlic) and also cultivate protected (indigenous) crops, using local materials. This strategy has been complemented by the production of seasonal vegetables and fruit and has reduced producers' dependency on external inputs. It has at the same time promoted local crops, which have given consumers a diverse range of quality food that is available throughout the year.

Small-scale producer at Maputo Earth Market

Source: Slow Food, 2012.

These practices have been the basis of agro-ecological production standards, which were developed using a participatory method among farmers and all actors involved in the initiative. These standards and principles serve not as rules to be followed, but as a philosophy for a specific lifestyle with which producers identify and which they choose freely.

IS THERE AN ENABLING ENVIRONMENT?

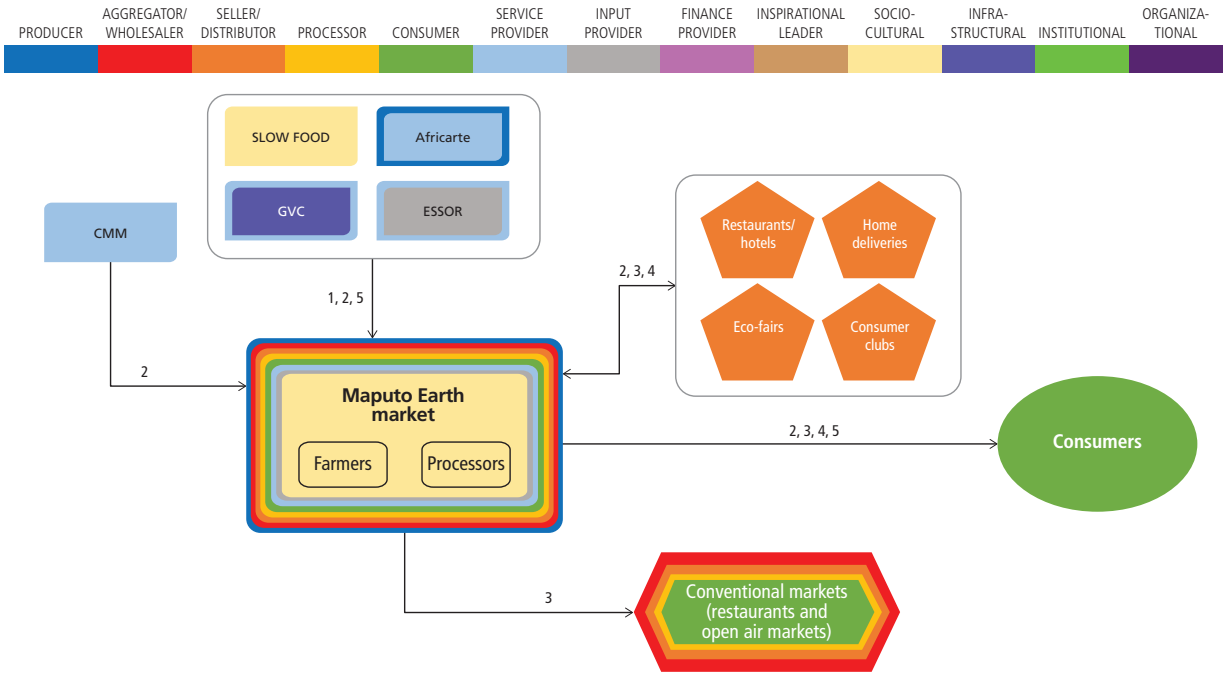
Mozambique's Government has not established legal instruments such as laws and regulations to promote and support organic agriculture or certifications, or to protect local production and family farming. Instead, local governments, civil society and international NGOs are significant in the development of programmes relating to agriculture and sustainable practices that involve small farmers. Organizations such as GVC, ESSOR, Slow Food and municipality councils are the principal promoters of initiatives such as Earth Markets that support the local economy, involving small farmers, processors and consumers in agro-ecological practices.

HOW IS BUSINESS CARRIED OUT?

The MEM vision is shaped and shared by NGOs, principally by GVC, a small civil society organization (CSO) (three people involved) that has the principal role of a service provider in the organization and management of the market; ESSOR (two people involved), a service provider NGO that supports the initiative with training, supply chain development and certification; Afri-

[4] http://africarte.org

FIGURE 1
Actors in Maputo Earth Market



Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Source: author's elaboration, based on interviews.

carte (five people involved), a CSO that provides training services and also produces some of the vegetables that are sold at the market; and CMM (one person involved), which provides the initiative with general support in the management and free use of the public area where the market takes place (Figure 1).

The economic role of the initiative is geared towards product sales and collective marketing of agro-ecological fruit and vegetables, processing products and local gastronomic products.

The MEM business model has the following characteristics:

1. ***Community embeddedness.*** It was clear that the community needed a new market where producers could reconnect to consumers and socialize on a weekly basis. MEM was established in response to this need. It is integrated into the community and citizens can participate and discuss their expectations and quality preferences each time the market takes place. Producers are motivated to listen and to make consumers part of the initiative. The specific cultural activities that are held on market days seek to recreate some of the traditional community exchanges that have been lost over the years.
2. ***Participatory decision-making.*** Producers not only participate in MEM as sellers but also in decision-making. Together with the multistakeholder organizers of the market, they establish the rules: where to sell, how much to sell, how to organize the physical space. Producers feel their opinion is taken into account and valued.
3. ***Public and private partnership orientation.*** From the beginning, MEM has worked to link organizations that promote agro-ecology. International NGOs, national CSOs and local authorities participate in the initiative as service providers (in management of the market, logistics, training, certification) and as general support in promoting MEM.
4. ***Local small-scale producer support.*** Promoting shorter supply chains and prioritizing closer relationships among small-scale producers, processors and consumers are key objectives of MEM. It represents an alternative instrument for promoting agro-ecological practices and family farming through direct contact and the opportunity for direct and collective sales at the market. Fourteen small-scale producers from the environs of Maputo (Macaneta, Catembe,

Boane and others) participate in the market, selling fresh and healthy products.

5. ***Product diversity promotion.*** Several kind of products are sold at the market, all of local and regional origin. They include typical traditional food such as *Bajias* (fried meatballs made with vegetables and bean flour) and *Chamussas* (fried triangles with meat or vegetable filling); fruit and vegetables; fish; traditional rice; natural juices; eggs; peanut butter; honey; and cassava and sweet potato products such as cakes and biscuits.
6. ***Informal quality control.*** In line with the Slow Food mission, MEM guarantees that the agro-ecological products traded have good, clean and fair qualities. To ensure that this is so, a description of practices is drawn up by producers with the objective of knowing how all producers (including farmers, beekeepers, poultry farmers and fishers) made or prepared their products (for the purposes of transparency). This internal quality control works as an informal certification mechanism among producers since there is no law or regulation that defines, regulates or protects organic production in the country.

HOW ARE MARKETS CREATED?

Producers participating in MEM have consolidated market channels for gaining access to inputs but particularly for selling healthy local, fresh and processed products.

Where do production inputs come from?

Markets for agro-ecological inputs have not been developed in Mozambique. The principal source of agro-ecological inputs for MEM producers – natural and mineral pesticides, seeds and other products – comes from their own production. This is part of the on-farm strategy of diversification whereby the production of seasonal vegetables and fruit reduces the need to purchase external inputs. Some natural and mineral additives and seeds are still bought in local stores, and some seeds and products are bought or exchanged with other producers at the market.

Producing their own inputs provides farmers with specific benefits, including seeds and inputs that are better adapted to local and environmental conditions. Other benefits were also reported, such as regular production and availability; reduction in production costs; reduction in external dependence; certainty about the biological origin of inputs and their agro-ecological quality; good quality of inputs; preservation of local varieties; and good-quality end products.

Diverse products at Maputo Earth Market

Source: Slow Food, 2012.

Where do products go?

MEM is the principal market channel through which member producers and processors sell their agro-ecological products, although it is not the only channel. Producers are able to access a wide range of market channels (Table 1). Home deliveries, ecofairs and restaurants are market channels where products can be recognized as agro-ecological. The four producers interviewed reported allocating 54 percent of their production on average to agro-ecological and organic market channels and about 46 percent to conventional

TABLE 1
Where can Akmola traditional dairy products be found?

Market channel	
Open-air market	46% conventional
Supermarkets	
On-farm sales	54% agro-ecological and organic
Direct sales	
MEM/farmers' markets/ ecofairs	
Home deliveries	
Consumer clubs	
Restaurants/hotels	
Own consumption	

Source: authors' elaboration, based on interviews.

Maputo Earth Market

Source: Slow Food, 2012.

market channels such as open-air markets and supermarkets, where products sell at conventional product prices.

What marketing strategies are used?

Diversification of products based on consumer demand is an important marketing strategy, especially suited to meeting consumer needs and attracting new customers. Producers are trying to include products such as aromatic herbs, organic eggs and more local fruit. They want to spread the initiative and are open to accepting any opportunity to participate in new market channels. Even though there is a preference for MEM and direct sales, all market channels are welcome. Producers also sell their products near or at their farms or make home deliveries. Discounts on sales are applied according to the quantity ordered: the larger the order, the lower the prices.

Challenges or opportunities for market access?

Scarce funding for creating new market channels is a significant drawback in the MEM initiative. Despite the participation of NGOs and donors, financial resources have not been sufficient to build up and manage the market in an organized way, especially with regard to logistics. Half of the producers (two out of four) explained that the market still needs high-quality products and trust from consumers for it to survive, which is why they are concerned about ensuring quality. It is not always easy for them to do this, particularly because there are no agro-ecological labels that facilitate identification of product quality when new customers and visitors come to the market.

Another challenge for market access is the lack of inputs for agro-ecological production. Producers claimed that, in general, it was not easy to find the inputs they needed in local markets and it was particularly difficult to find organic seeds in Mozambique as a whole. This affects the diversity of the products they can offer in the market and also what consumers in their market channels seek.

Where to next for the Maputo Earth Market?

Source: Slow Food, 2012.

HOW IS VALUE CREATED?

What are the characteristics that give value?

The physical and intrinsic characteristics related to agro-ecological quality are important in qualifying the products required in MEM. All four interviewed producers noted that "local products", "fair price", "reliability" and "tradition" were the agro-ecological attributes most asked for by intermediaries and consumers. Physical attributes such as "look", "large quantities" and "publicity and packaging" were also ranked as being important.

Engaging producers and consumers at Maputo Earth Market

Source: Slow Food, 2012.

Creating shared value?

The qualities noted above are principally communicated and transmitted by producers through personal contact with consumers and among themselves (four respondents) at the weekly market. Each market becomes a discussion space where, through direct contact, consumers ask questions, make comments and listen to how the food is produced and by whom. Through this dialogue, producers have the chance to reassure consumers about the agro-ecological quality and origin of products. Quality is further communicated to consumers by on-farm visits, publicity and posters. One of the producers explained: "Interested consumers see the posters explaining the initiative and who the sellers are; consumers listen to how production is carried out and who produces, and this is the way to guarantee and communicate quality". Producers learn about agro-ecological practices and try to keep up to date through published reference books, guides and the Internet, and by attending seminars and meetings offered by NGOs and organizations such ESSOR and Africarte.

Product prices are set according to production costs. In general, when the costs of inputs increase, market prices for products also increase. Personal communication at the time of purchase is when quality is explained and prices are negotiated. Producers explain their production methods and how costs are calculated. Price labels, television and radio communication and on-farm visits are also helpful. Prices can be negotiated between producers and consumers when purchase orders are large. In general, consumers are not involved in price negotiations and accept the prices charged. Even when prices go up, producers explain that this is because of increased costs and all the respondents (four producers, one intermediary) reported that their customers do not complain.

Producers found prices to be fair in most market channels because they are based on production costs and consumers and intermediaries accept them with little haggling. Prices in direct MEM sales, home deliveries and other fairs are considered to be fair because they do away with intermediaries and consumers can recognize and value the local products. MEM pricing mechanisms try to keep prices stable throughout the year, which is appreciated by producers. For example, there are typically periods of seasonal abundance when producers' market prices would normally be lower (because of increased supply); however, MEM keeps the same prices as those when there is low availability. Consumers are satisfied with this arrangement because the stable price helps them during particular times in the year. Hotels and restaurants also accept the prices set by producers. Although products in supermarkets are sold at the same prices as conventional products and agro-ecological quality is not recognized, half of the producers (two out of four) did not see this as unfair.

SCALING UP, WHERE TO NEXT?

MEM has undergone a number of important changes that have enabled it to strengthen its initiative as an agro-ecological market.

1. ***More producers in the market.*** Producers noted that the number of producers participating in MEM increased to 14 in 2015. MEM's family producers are concerned with health, well-being and the environment, involving not only themselves but the whole community of Maputo. This increase in numbers has influenced the diversification and quantity of products available on the market by promoting and trading a growing portfolio. The market now sells roots and tubers, vegetables, fruit, processed products such as butter, cassava and sweet potato products, cakes, juices and oils, and meat (fish and chicken).
2. ***More consumers participating.*** The diverse range of quality food and local products and the periodicity of events throughout the year have created interest and increased the number of consumers and visitors to the market. Producers say there about 20 percent more consumers.
3. ***Organizational improvement.*** There is growing interest in MEM among NGOs and private organizations as it tries to develop the local agriculture and economy. The organizations are interested in supporting the initiative by creating new spaces such as farmers' markets that are attended by MEM producers, and supporting them in order to achieve stronger organizational development and advocacy for the legalization and visibility of the initiative.
4. ***Visibility through the media.*** Advertising through social media, radio, by word of mouth and via text messaging has facilitated communication about the initiative. The use of new media makes the market more appealing, and facilitates exchange of experiences, new contacts and access to information that have promoted and improved the visibility of MEM in the Maputo community.

These changes have strengthened the initiative through better levels of organization and continuity of sales that have created loyalty among MEM consumers. To scale up the initiative, MEM wants to participate in and open new market channels where agro-ecological and local products can be traded, recognized and valued by consumers, and wants to continue with the objective of spreading the initiative to other regions. It seeks to improve visibility and local representation; enhance producer-consumer relationships that engender loyalty; and increase community and institutional interest. These factors are important in spreading the MEM vision to other areas around Maputo. To achieve this, MEM feels that it needs the following types of support:

1. Internal and external support to develop a better collective marketing strategy and to manage financial and human resources better.
2. Public policies and laws focused on national rural development strategies, particularly to create and develop market channels such as farmers' markets.
3. Stronger partnerships with NGOs and organizations that can give support with funding and training.
4. Greater publicity and better use of the media for spreading MEM's objective and improving its visibility.

The Namibian Organic Association[1]

INTRODUCING THE INITIATIVE

The current ecosystemic and climatic conditions of Namibia – characterized by desert, arid and semi-arid soils, dry subhumid climate and low rainfall – make the country one of the most vulnerable to the impacts of climate change. The harsh climatic conditions are becoming worse because of the country's high dependence on the use of natural resources to feed and guarantee the well-being of the population. However, the use of these natural resources is not happening in a sustainable way, since the development of agriculture, and the mining and tourist industries – the three pillars of the Namibian economy – are relying too greatly on current resource availability.

In response to these environmental and economic concerns, the Namibian Organic Association (NOA) was created in 2009. It is a pioneer member-based organization of organic farmers and consumers demanding high-quality, organic, ecofriendly and healthy food. NOA is unique in the agricultural sector of Namibia as it has contributed to building recognition of the organic concept in the country. It provides training (from small-scale vegetable gardening techniques to international organic courses); an electronic newsletter, the annual *Living in Organic Times* publication; social events/farm visits; and a vibrant business community. It is actively leading efforts to promote sustainable agriculture and livestock practices. In 2015, a NOA farmer received recognition for her efforts by being named the Namibian Agricultural Union's 2015 Young Farmer of the Year.[2] This was the first time the award had

Key facts

Country: Namibia
Year initiative created: 2009
Producers: 11 certified farmers
Consumers: NOA members
Different types of actors in the initiative: 3 (producers, consumers, retailers)
Average number of links in the supply chain: 1.7
Core products: fruit and vegetables, meat, grains, eggs, ice cream
Geographic market size: local, regional and national
Number of market channels: 11
Type of market system: information-rich market network
Definition of agro-ecology:

Challenge for market access: lack of adequate post-harvest infrastructure (storage facilities and an organic abattoir) for adding value to and increasing the availability of organic products
Main lesson: a single PGS can work effectively in both large- and small-scale operations
Opportunity for scaling up: the concept of local is associated with organic, which provides opportunities to expand the initiative beyond the core community in order to increase and diversify production and consumption

> "We want to grow organic as a food production tool and not just as an economic tool, then we take the community into consideration, people are coming in and learning how we do things."
>
> *Suzette (producer).*

[1] This factsheet was written by Allison Loconto and Alejandra Jimenez, based on data collected by Wiebe Volkman and Allison Loconto in 2015. A total of 20 interviews were conducted with seven producers, seven intermediaries and six consumers. Two additional consumer focus groups were held and collected information from 21 consumers.

[2] http://www.farmersweekly.co.za/news.aspx?id=79657&h=Namibia%E2%80%99s-Young-Farmer-of-the-Year (accessed 31 March 2016).

Cattle in the mixed herd, Springbockvley

Source: A. Loconto, 2015.

PGS peer review of planting materials

Source: NOA, 2014.

been given to an organic (holistic management) farmer and to a woman.

NOA organizes its food system around a locally adapted Participatory Guarantee System (PGS) to support farmers in accessing local markets and guarantee organic and sustainable practices and products. As of 2015, NOA's PGS consisted of a network of 11 certified farmers who cultivate about 30 000 ha organically. The organic production sector and domestic market were too small to justify the general promotion and adoption of third party certification. Therefore, the development of the NOA PGS was the result of a need to formalize the sector. Consumers wanted to make informed purchasing decisions and required labelled organic food, while farmers wanted to receive recognition for the fact that their products differed from conventional products. PGS addressed the situation in which, without appropriate Namibian legislation, standards and a certification structure, the organic market was exposed to misleading claims and subsequent abuse of consumers' trust in organic food. The NOA PGS guarantees the organic quality of products produced according to organic standards and labels them with NOA marks. NOA's standards and labelling ensure that organic products are differentiated from conventional (and imported organic) products. This generates benefits for all actors involved in NOA.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

NOA follows the International Federation of Organic Agriculture Movements (IFOAM) Principles of Organic Agriculture (health, ecology, fairness and care) as the ethics by which organic agriculture should be practised and developed. These include ecological management practices and seek to enhance the interactions and relationships between all components of an organic food system, which is considered as a closed-loop food cycle. This cycle:

- respects nature's cycles;
- enhances environmental awareness through sustainable improvement of the health of soil, water, plants, animals and consumers, in that their interconnection and balanced relationships contribute to a high level of biological diversity;
- makes responsible use of energy and natural resources, such as water, soil, organic matter and air;
- respects high animal welfare standards and, in particular, meets animals' species-specific behavioural needs.

Following these principles, NOA adapted the Afrisco standards for organic production3 to local Namibian institutional capacities and conditions. NOA uses a PGS as an alternative to third party certification for organic production and relies upon its interpretation of the Afrisco standards for assistance, documentation and provision of training in the development of its private PGS. Modelled on and adapted from IFOAM's PGS guidelines to the local production characteristics and environment, NOA's PGS received official recognition from IFAOM in 2013.

[3] Afrisco is a private, internationally accredited South African organic certifier that ensures the organic quality of a production system and food products in South Africa and other African countries. It certifies organic farms, giving licences and certifying organic food production, processing and packaging.

FIGURE 1
Namibian organic labels

Source: A.Loconto, A.S. Poisot and P. Santacoloma, 2016.

With the objective of ensuring the Namibian origin and organic quality of products, NOA PGS implements three type of standards, each of which has a corresponding label (Figure 1).

- ***Namibian Organic in Conversion.*** Used by farmers after one year of organic farming in line with NOA PGS standards.
- ***Namibian Organic.*** Used by farmers after two to three years of organic farming in line with NOA PGS standards.
- ***Namibian Organic**** (brown colour). Farmers can use this mark if they have Namibian organic ingredients identified in their products but processing is still not certified. Valid until the end of 2016, this category was implemented to encourage these farmers to reach compliance with NOA PGS standards.

NOA PGS standards take into account local characteristics such as the availability of local and organic seed and grains, specific ecosystems and production systems, and local knowledge. They also recognize permaculture, biodynamic agriculture and organic farming as other agro-ecological methods that can be implemented. Holistic management is promoted by NOA PGS for the ecological, economic and social management of grazing lands by giving farmers the capacities to develop strategies for managing wild herbs, soil care and nutrient cycling management.

IS THERE AN ENABLING ENVIRONMENT?

There are a number of initiatives and policies in Namibia that promote sustainable practices (although there are no specific policies or programmes currently in place to support agro-ecology or organic farming). These initiatives and policies provide support to organic farmers and processors in the development of their production systems and have been important in the construction of the organic sector under the NOA initiative.

- The Government of Namibia has implemented different policies to respond to climate-related impacts on agriculture as well as to promote practices in the sustainable management of natural resources. One of the most important policies is the National Agricultural Policy developed by the Namibian Ministry of Agriculture, Water and Forestry which aims, among other things, to promote the sustainable use of land and natural resources in agricultural practices.
- Article 95 of the Namibia Constitution highlights habitat conservation and the protection of natural resources, promoting ecosystems and biological diversity conservation, and the sustainable use of land and natural resources. Inclusion of this article in the Namibian Constitution makes Namibia one of the few countries in the world to promote the protection of natural resources.
- NOA has a good relationship with institutions and agencies at both private and public levels, which helps its lobbying and participation in environmental and agricultural policy issues. There is a significant cross-fertilization of ideas between NOA and Holistic Management International, which often organizes joint training and events.

NOA, like other farmer organizations in the country, receives market support from the Namibian Agronomic Board (NAB) in the promotion of domestic horticulture crops. This support comes in two forms. First, it is part of NAB's market share promotion programme, whereby all import-

ers of fresh horticultural produce are required to buy a certain minimum percentage (initially 5 percent) of Namibian cultivated produce. This percentage has increased steadily to its current level of 41.5 percent and the ideal target is around 60 percent. Second, NOA receives funding from NAB as part of the latter's contribution to farmer organizations in the country. NAB receives this revenue from its share of import taxes on priority crops.

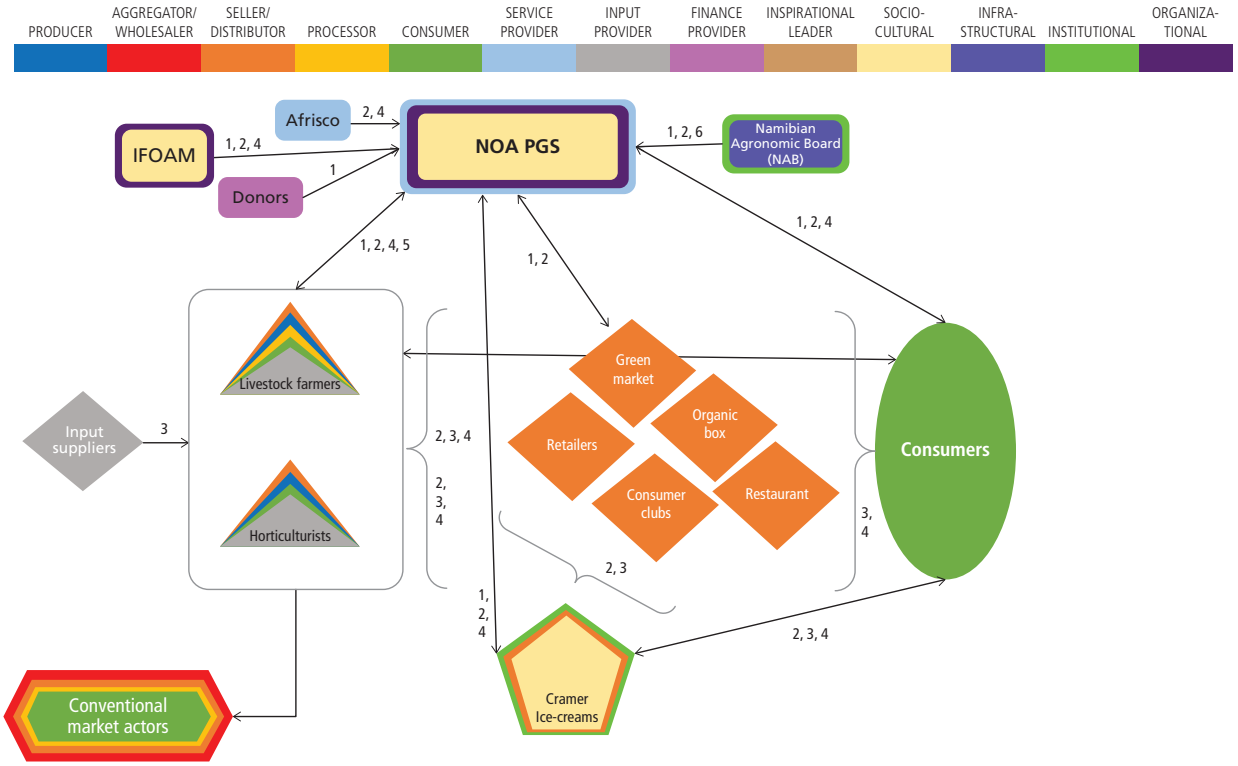
HOW IS BUSINESS CARRIED OUT?

NOA operates as a non-profit association with fee-paying members. In 2009, it was registered as an "Association with Constitution", managed by a decision-making board, administration team and members. The initiative is open to all persons who want to be members and who share a common interest in supporting organic and sustainable practices and the development of the organic sector in Namibia. It generates revenues through member fees (9 percent); sales of organic products in supermarkets, organic box schemes and restaurants (18 percent); advertisements in *Living in Organic Times*; financial support from donors, including the German Agency for International Cooperation (GIZ) and the United Nations Development Programme (UNDP) (31 percent); conference, training and assessment fees (7 percent); and public funds from NAB levies paid by all Namibian producers (35 percent).

The NOA PGS business model has the following characteristics.

1. ***Community embeddedness.*** The NOA initiative worked from the start to construct and adapt its objectives to fit the local context in order to meet its specific social needs and those of the community. NOA is integrated into both the Afrikaans and German farming and urban communities and is promoting cooperation and interaction among its members, supporting citizens' initiatives and women's economic empowerment, which are seen as important objectives. The initiative also works with other communities to create a mutual dependence and develop all communities and regions economically. With regard to the latter, NOA is expanding

FIGURE 1
NOA PGS East African Federation system

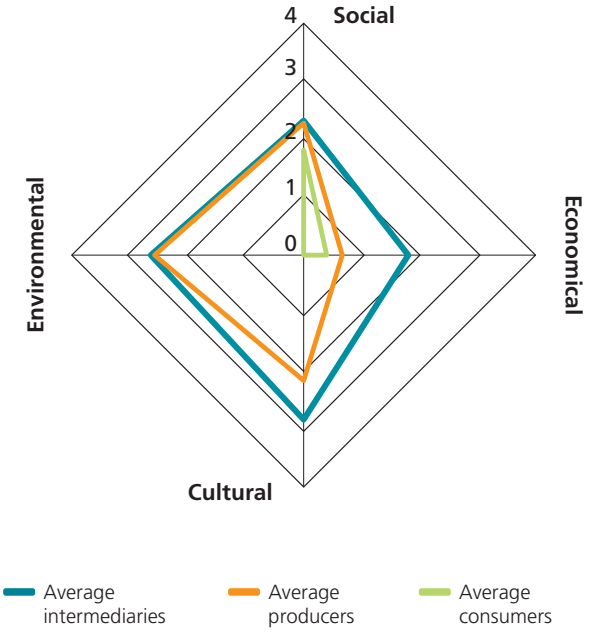


Flows: (1) Finance; (2) Knowledge/information; (3) Commercial transactions; (4) Culture/values; (5) Control/surveillance; (6) Political authority.
Source: author's elaboration.

its reach to some of the poorer urban areas of Windhoek to encourage urban farming and extend the consumer base.

2. ***Limited but transparent decision-making body.*** NOA has a board that makes strategic decisions. Non-organic farmers, consumers and other agents do not participate in the decision-making of the initiative but are always invited to act as observers and scrutinize the documents, processes and assessments related to management. The recent integration of Hope Initiatives Southern Africa (HISA) and a processor member into the board illustrates how NOA is expanding beyond its original community.
3. ***Inclusive participation.*** Several actors such as farmers, consumers, intermediaries and other institutions can participate in the initiative as members. NOA is open to all persons who want to be part of the initiative. NOA membership confers benefits such as institutional and legal representation, access to first-hand market information, participation in extension programmes on sustainable practices and other services. Despite its strict criteria for participation, especially regarding the organic principles applied on farms, NOA makes no exceptions for anyone wishing to participate. It does not discriminate between small, medium or large farmers and processors. It promotes different products (which facilitates the participation of a wide range of farmers), traders and consumers. Current scaling-up efforts are being developed to expand production and consumption for both genders without discrimination across all Namibian regions and cultures.
4. ***Transparency is a cornerstone of NOA PGS.*** NOA guarantees transparency in all its processes, to its members and to those interested. In order to promote transparency, NOA invites actors to observe, take part in and attend the farm assessments that are the main feature of the initiative. These enable participants to learn from each other and create discussion spaces around sustainable practices. On-farm visits, PGS assessments with people participation, direct contact with consumers at markets, labelling products, events, publications, and making public the assessment documentation for community scrutiny are some of the activities used by the initiative to promote and ensure transparency among members and encourage people to become active NOA members.
5. ***Official quality management system.*** NOA PGS quality is guaranteed through a quality management system that starts with the locally adapted NOA standards. The NOA PGS process guarantees confidence in production practices and focuses on the freshness of products, encouraging farmers to reduce the time between harvest and deliveries to market. Labelling products that meet these standards carries the NOA quality guarantee to consumers, who rely upon label recognition for purchasing decisions.
6. ***Institutional network.*** NOA works in close collaboration with public and private partners. It interacts with state institutions and agencies such as the Namibian Ministry of Agriculture, Water and Forestry (MAWF), Ministry of Trade and Industry (MTI) and Ministry of Environment and Tourism (MET); the Agro-Marketing and Trade Agency (AMTA) of Namibia; and the Namibian Standards Institution (NSI), among others. NOA also interacts directly with farmers, farmer associations (National Association of Horticulture Producers [NAHOP], Namibia Agricultural Union [NAU] and the Namibia National Farmers Union [NNFU]), and

FIGURE 2
Perception of sustainability (n=16)



Source: authors' elaboration.

farmers supported by international Non-governmental Organizations (NGOs) and programmes. It has strong relationships with individual traders, market intermediaries and Namibian traders' associations and teams, consumer associations, educational and training institutions and entities working in food safety control.

7. ***Environmental and social sustainability.*** The results of the survey on the perception of sustainability are not final, since the consumer surveys were not completely filled out. Nevertheless, there is a strong tendency towards recognition of NOA's environmental contributions rather than on social and cultural dimensions. Respondents were not very confident in the economic sustainability of the initiative, particularly among producers (Figure 3). While transparency is important in NOA's activities, the origin of its funding and how it is used were less apparent to actors outside the Secretariat.

HOW ARE MARKETS CREATED?

NOA PGS has developed its strategy around markets both for gaining access to inputs and for its fresh and processed products.

Where do production inputs come from?

Producers in Namibia have a wide range of markets in the capital city, Windhoek, where they can obtain inputs such as seeds, animal feed, fertilizers, biological pesticides, minerals, tools and equipment imported from South Africa. Purchasing such inputs in trusted markets gives producers the benefits of good prices, finding elusive and good-quality inputs that are effective, not treated with synthetics, locally adapted and certified organic. Farmers also produce their own inputs, such as seeds, fodder, manure, compost and bedding, which gives them the benefit of good-quality production, certainty about the organic origin of their inputs, reduction in production costs and independence.

PGS peer review of planting materials

Source: A. Loconto, 2015.

Where do products go?

Farmers supply organic products to a wide range of market channels depending on distance, price requirements and customer demands (Table 1). The majority of NOA farmer members are located in the central regions of Namibia and mainly sell their products in Windhoek. Producers allocate about 7 percent of their production for home consumption, about 34 percent to agro-ecological market channels and about 59 percent to conventional market channels. The principal market channels are formed by organic farmers' markets and retailers, especially supermarkets.

What marketing strategies are used?

Markets channels created to promote organic products such as farmers' markets, shops and organic box schemes are important players in the marketing of NOA PGS products. Shops order directly by e-mail from farmers, according to consumer demand, thus saving time, money and

TABLE 1
Where can NOA PGS products be found?

Market channel	
Processors	59% conventional markets
Wholesalers	
On-farm sales	34% agro-ecological and organic markets
Direct sales	
Box scheme	
Farmers' markets/ecofairs	
Restaurants/hotels	
Small shops	
Supermarkets	
Internet sales	
Events	
Consumer clubs	
Export	
Own consumption	7%

Source: authors' elaboration.

waste. By purchasing products directly, via e-mail and in correspondence with NOA PGS farmers, intermediaries and consumers can be sure about the origin and quality of products. The principal clients of restaurants are mainly people from the government and young entrepreneurs. The restaurant strategy is to create innovative menus that include organic products since customers are health conscious and demand high-quality food. Price discounts and tastings are used by supermarkets to promote organic products. One supermarket opened a whole organic and health foods section in response to the opening of a nearby gym.

Freshness and visual qualities are important attributes required by consumers of organic products in Namibia. To ensure freshness, farmers deliver produce weekly or even twice a week to consumers through their market channels. Part-time merchandisers are employed to ensure that produce is well presented and properly packed to guarantee visual appearance. The diversity of products on offer is also important in meeting more consumer demand; NOA PGS farmers have the skills and knowledge to develop a diversified production system and to serve the different markets. When organic farmers supply the same market, such as farmers' markets and organic box schemes, they work on optimizing their product diversity through planning and coordinating their production.

The use of standards and labels is another strategy to promote the marketing of organic products. NOA's consumers require information in order to identify certified organic products, and labels help them to distinguish NOA's products from non-certified products.

Challenges or opportunities for market access?

A shortage in the supply of organic products is the main challenge. Both consumers and intermediaries found that there was limited availability of supplies to fulfil the orders and dietary needs of consumers. Shortages are aggravated by delays in deliveries, orders not being delivered at all and inconsistencies between what is ordered and what is delivered (e.g. some vegetables are not produced by the farmers themselves).Farmers explained that the shortages in some market channels were the result of several factors. Sometimes consumers want products that farmers do not produce; at other times, production costs and seasonal conditions mean that some products are not available when requested. Farmers prioritize their sales for some market channels (such as the organic box and green market), rather than selling to shops and supermarkets, where demand is greater, because of more favourable prices and their vested interest in keeping these alternative markets active. Some markets are far from production, which may delay delivery because of difficulties in logistics (transportation). Finally, farmers face difficulties in finding markets where organic products are adequately valued. There are also problems in accessing organic inputs, such as high prices for imported inputs, lack of organic inputs in markets in general, water shortages, unreliable electricity and difficulties in obtaining seeds for cover crops. Low seed quality (i.e. poor germination and scarcity of non-treated seeds) and poor-quality packaging materials were also mentioned. Producers and intermediaries stated that consumers still perceive organic products as being extremely expensive.

Organic section at a supermarket

Source: A. Loconto, 2015.

Tasting at the Ice Cream Club

Source: A. Loconto, 2015.

HOW IS VALUE CREATED?

What are the characteristics that give value?

Visual and organoleptic qualities were significant in qualifying the organic products demanded by consumers and intermediaries. What was most wanted in markets was "freshness" which, in some cases, was recognized by consumers through expiry dates and the physical consistency of products (especially for ice cream). "Good packaging" was the second most sought-after characteristic for organic products which, in most cases, meant professional neat packaging. "Taste" was also mentioned, mostly by end consumers who purchased products directly, rather than from supermarkets and organic box schemes.

Organic quality was associated in the latter schemes with labelling, or a certified organic label requested by retailers and the organic box scheme organizer. Other organic quality requirements were that products be "clean", with Namibian or "local components", standard or kernel "size" of some processed products and 100 percent "natural", with no additives to give colour, flavour and texture.

Creating shared value?

The organoleptic and organic attributes noted above are principally communicated through direct contact (73 percent of respondents, Figure 3). Personal communication between actors (including NOA managers and board members) occurs during on-farm visits, PGS assessments and in markets. This communication is very important for transmitting information about the quality of products and also serves to create discussion spaces where the formulation and reformulation processes about these qualities take place. Quality is further communicated via NOA labels (organic standards), which are used to differentiate and recognize organic products. The transparency of the NOA PGS system and training courses has generated increased awareness on the part of traders and consumers. NOA's promotion of organic labels in the community has also been an important means to identify organic products and protect them from fraudulent products. NOA PGS uses a wide range of media to communicate the quality of products, such as e-mail, social networks, Web sites, telephones, newsletters, radio programmes and other information material. These tools are used to provide feedback on the quality of products

Farmers' market in Windhoek

Source: A. Loconto, 2015.

FIGURE 4
Characteristics of agro-ecological products

Source: authors' elaboration.

FIGURE 5
How is quality communicated?

Source: authors' elaboration.

TABLE 2
How fair do actors think the prices are?

	On farm	Direct sales	Farmers' markets	Supermarkets	Traders	Consumer club	Restaurants and hotels	Organic box	Small shops
Mean*	4.0	4.6	3.6	3.6	3.6	4.3	4.0	4.2	2.7
N = 22	2	5	7	3	3	3	5	7	4
Standard deviation	0.00	0.547	1.127	1.527	1.527	0.577	0.000	0.487	1.5

* 1 = very unfair; 2 = unfair; 3 = neither fair nor unfair; 4 = fair; 5 = very fair.
Source: authors' elaboration.

and all actors (producers, processors, traders and managers) are involved in the quality assessments.

The prices of organic products are established by producers based on production costs and are mainly influenced by prices for similar ("non-organic") products in conventional market channels (such as supermarkets). NOA PGS members have good relationships with market intermediaries, which helps in the process of setting prices. Prices are established through discussion and negotiation processes among producers, traders and consumers. In these negotiations, the quality, freshness and physical appearance of products, high production costs and current low levels of organic production, and growing demand are factors that make prices higher and more convenient for farmers. Traders and consumers are aware of these factors and prices are set for the benefit of organic producers. The final market prices are then shaped by adding a margin based on the supplier price and in relation to current levels of supply and demand. Producers obtain a higher price for their products by selling directly to consumers. However, the prices of products in the majority of market channels are perceived to be fair. The fairest prices were found in direct sales and sales to restaurants/hotels, while the least fair were found in small shops (Table 2). Consumers are sometimes concerned about the high prices but are nonetheless willing to pay these prices because of the higher quality of products.

SCALING UP, WHERE TO NEXT?

A number of important changes have taken place in NOA PGS since the beginning.

1. ***Building the Namibian organic sector.*** The initiative is unique in Namibia in every respect. The PGS approach has formalized the organic concept within the country and has been a pioneer in formalizing organic farmers and consumers and creating a vision for organic produce that takes local and traditional production methods into account. Through the development and institutionalization of PGS as an alternative organic certification, the development of standards and participation in the creation of organic policies that support the sector, NOA has created an environment whereby consumers are able to purchase organic products that have been verified by an organic assessment system; producers are able to plan their production systems based on the local agro-ecological conditions captured in the organic standards; retailers and market intermediaries can trust the organic identification system to help them to differentiate between quality organic products and conventional products; and, finally, public and private institutions have, in NOA, an informed and growing civil society that can demonstrate, with data and verified experiences, that organic agriculture is a good agricultural policy option for the country.
2. ***More produce, more producer members, better quality.*** The initiative has increased the quantity of products available in markets thanks to increases in the number of members. With more members as part of the initiative, the produce on offer has increased, reaching more markets and regions and producers have optimized the diversity of products brought to markets. The initiative employs a coordinating strategy in introducing new products in order to reduce product duplication across the market channels, thus giving consumers greater choice. Furthermore, the quality of products has improved thanks to PGS assessments and adherence to organic standards.
3. ***Improving stakeholders' awareness.*** Thanks to the education, training and awareness campaigns carried out by NOA to promote organic production and consumption, particularly during participatory assessments, cultural activities and use of the media,

awareness of and interest in joining the initiative have increased, which is documented by the increased number of consumers purchasing organic products.

4. ***Efficient use of the media.*** NOA's annual publication, Living in Organic Times, has been important in gaining visibility for the initiative together with the Web site, newsletters, library and guidelines about organic production and healthy consumption practices that have all contributed to consumers being able to make informed purchasing decisions. NOA PGS is now recognized as one of the most influential institutions in the emerging Namibian organic sector and serves as a platform for organic agriculture in the country.
5. ***Focused marketing on health-conscious consumers.*** The initiative has worked to supply organic products to different market channels. These markets have been the result of a serious and in-depth market research activity to identify local demand for organic products. NOA PGS has focused its marketing efforts, and in turn the products that are cultivated, to cater to those channels where consumers are more sensitive to health, chemical- and genetically modified organism (GMO)-free food and environmental care issues. The principal markets are located in the capital of Namibia, but the initiative recognizes a notable demand in other areas in the country. It is trying to capture this market niche by increasing the number of producer members in order to expand production.

NOA PGS has grown from personal relationships among members and consumers to become an established organization and the main promoter of organic agriculture in Namibia. These changes have strengthened the initiative and it is increasingly becoming recognized at national and international levels. NOA has created a coordinated organic network, which is gaining interest from public and private institutions in the Namibian organic sector. To reach its current scale, NOA PGS members have embedded organic standards in their own production systems and have created new spaces for public dialogue around agro-ecological issues, specifically with regard to the health benefits of consuming organic products.

To scale up the initiative, NOA PGS wants to promote market niches in order to consolidate the current domestic markets in Namibia and review the potential of developing products for export markets. It hopes to improve the frequency of information supplied to members and consumers through its publication and via other media in order to reach a wider number of people and achieve as much awareness about organic products as possible. To do this, NOA PGS needs the following backup.

1. ***Internal support, engagement and coordination*** to increase the number of certified producers and processors across the country, with the objective of supplying more market channels with greater quantities and a greater variety of products.
2. ***Public policies.*** The implementation of a national organic agricultural farming policy and better support from the Government.
3. ***Better financial and human resources.*** Funding for NOA PGS personnel, office spaces and equipment, finance for organic demonstrations and research farms.
4. ***Promotion of the concept of organic production*** among farmers and conventional farmers and the promotion of PGS as a credible, alternative certification system.
5. ***Consumer education*** about the benefits of eating organic food.

Freshveggies Participatory Guarantee System[1], Uganda

INTRODUCING THE INITIATIVE

The Freshveggies Participatory Guarantee System (FV-PGS) is a private agro-ecological production and marketing initiative operating in the rural areas of Kampala in Uganda. The initiative was set up by a community network of smallholder farmers in autonomous groups working under a common production and marketing model for organic fruit and vegetables. It began in response to the need to promote healthy food and sustainable practices through a PGS approach – on-farm training and collective sales, economic empowerment, food sovereignty and healthy communities able to produce organic food and supply nutritious high-quality food to meet growing consumer demand. This integrated approach supports the FV-PGS business model and its vision of linking smallholder farmers to available markets.

The PGS approach brings together farmer members and consumers in the construction of internal standards for sustainable agriculture that encourage direct contact, trust and long-term partnerships among participants. FV-PGS promotes continuous updates in sustainable practices through on-farm training and meetings, which have contributed to building farmers' capacities in understanding the implications and benefits of adopting agro-ecological practices. The collective sales scheme offers safe sales, sustainable household incomes and quality products, as well as regular deliveries to consumers. The principal benefits of participating in FV-PGS are presented in Table 1.

The FV-PGS initiative started in Wakiso district and, with the inclusion of new interested people, it has extended its influence to the regions of

[1] This factsheet was written by Alejandra Jimenez and Allison Loconto, based on data collected by Julie Nakalanda Matovu in 2015. A total of 30 interviews were conducted, including interviews with 16 producers, four intermediaries and ten consumers.

Key facts

Country: Uganda
Year initiative created: 2009
Producers: 88 members in three areas of Wakiso and Buikwe districts
Consumers: 88 households, ten box scheme members, supermarket clients
Different types of actors in the initiative: 4 (producers, consumers, retailers, NOGAMU)
Average number of links in the supply chain: 1.6
Core products: fruit, exotic vegetables, local medicinal herbs, local chicken eggs
Geographic market size: local (peri-urban) and regional sourcing
Number of market channels: 11
Type of market system: diversified market network
Definition of agro-ecology:

Challenge for market access: inconsistent supply, lack of logistics, and lack of space for trade and local market channels
Main lesson: collective production planning and marketing through social networks builds trust in the system
Opportunity for scaling up: new local clusters of farmers in the network can increase volumes and varieties, and consumers recruit new customers through their social networks

Buikwe, Bushenyi and Mukono. In these regions, the idea is still under development, consolidating the PGS concept among members and recruiting more farmer groups in order to form more clusters. The network has about 88 active members, of whom 33 are part of the Wakiso cluster.

TABLE 1
Principal benefits of participating in FV-PGS

Producers	Consumers
▪ Regular incomes	▪ Fresh and clean food
▪ Advisory services on production	▪ Organic quality assurance
▪ Quality and marketing skills	▪ Quality and price feedback
▪ Wider consumer base	▪ Convenient prices
▪ Recognition as organic producers	▪ Less occurrence of disease
▪ PGS certification	▪ Delivery services

Source: authors' elaboration, based on interviews.

TABLE 2
Principal rules for sustainable agriculture

Producers
▪ Saving own seeds (crop and plant varieties) on farm
▪ Growing indigenous and locally adapted varieties
▪ Crop rotation and intercropping
▪ Use of farmyard manure or compost on soils
▪ Use of plant hedges, ditches, l-bridges and some plant and grass bands
▪ Biodiversity conservation
▪ Agroforestry practices
▪ Animal protection and care
▪ No use of agrochemicals
▪ No uncontrolled bush burning
▪ No parallel production (practise conventional and organic agriculture)
▪ No use of genetically modified organisms
▪ No use of forced labour
▪ Promotion of family cohesion (family health care and education)
▪ Social and economic empowerment
▪ Collective sales

Source: authors' elaboration, based on interviews.

HOW ARE AGRO-ECOLOGICAL PRACTICES PROMOTED?

The PGS approach of FV-PGS is considered to be one of the ways in which sustainable farming practices can be achieved. Through this approach, farmers agree to work together as a network of autonomous protocol community groups, adopting common production based on internal standards and a collective marketing model. Following the four organic principles (care, health, fairness and ecology), FV-PGS has developed its own member-generated set of rules based on sustainable agricultural practices (Table 2). Adoption of these principles and rules has been embedded into sustainable agricultural practices as a culture and traditional practice used over the years by organic farmers in the region.

On-farm training and farmer field school activities are continuously developed by FV-PGS with the support of the National Organic Agricultural Movement of Uganda (NOGAMU). Training in organic production principles builds farmers' capacity to understand the commitments and benefits in adopting sustainable practices, and promotes and strengthens the vision of the initiative. These activities have built up producers' definition of agro-ecological agriculture mainly to mean an "understanding of the interactions of all constituents of the ecosystem around the agricultural practices that generate natural, nutritional and safe food, free from chemicals, following the principles of organic farming: care, health, fairness and ecology".

Consumers have been important actors in the integrated approach of FV-PGS. FV-PGS uses

FIGURE 1
Common logo for organic

Source: A. Loconto, 2015.

PGS as a marketing tool to create linkages between farmers and consumers and enable participation of consumers in direct feedback activities of certification (evaluating and guaranteeing ecological practices and products), quality attributes and preferences. Consumer participation generates trust in the initiative and consolidates its reputation, and it strengthens partnerships and activities that promote sustainable agriculture. FV-PGS facilitates direct feedback between producers and consumers through the marketing teams in the localities and by word of mouth and through e-mails, text messages, telephone and social networks. Thus information on sustainable agricultural practices is shared, as well as information on the nutritional values of products, recipe ideas and good consumption practices.

IS THERE AN ENABLING ENVIRONMENT?

FV-PGS operates within a national and local institutional landscape that has enabled the emergence of the initiative and its consolidation as an autonomous network of organic smallholder farmers.

- The East African Organic Products Standard (EAOPS) was adopted by the East African Community in 2007 as an official standard for organic production. EAOPS provides requirements, standards and laws that orient organic production and the PGS in Uganda. These standards and laws are locally accessible and can be adapted to local and cultural beliefs and norms. EAOPS authorizes the use of the East African Organic Mark (EAOM) Kilimo Hai (Figure 1), the common logo for organic products in Uganda, as an organic marketing tool.
- In 2001, NOGAMU was established. With the goal of uniting and leading the organic sector in Uganda and with a membership of 270 organizations across the country, over the last decade NOGAMU has been an important instrument in the mobilization of smallholder farmers, training, certification facilities and linking organic farmers to markets. Supported by Swedish Society, NOGAMU has played an important role in supporting PGS systems in the country and FV-PGS benefits directly from its support in strengthening small farmer capacity to mobilize other farmers, learn organic and PGS techniques, gain certification and facilitate linkages with organic markets.
- Organic stakeholders work within public frameworks such as the African Union Executive Council Decision EX.CL/DEC.621 (XVIII) on organic farming, the Comprehensive Africa Agriculture Development Programme (CAADP) and the National Development Plan for Uganda.
- Collaboration is fundamental with the Uganda National Bureau of Standards (UNBS) in international standards, codes of practice, guidelines and quality food recommendations, national regulations and Codex Alimentarius requirements.
- Private partnerships between farmers and organic agrodealers improve packaging and the visual appearance of products, using natural and organic materials rather than synthetics.

TABLE 3
FreshVeggies Participatory Guarantee System

▪ Enables members to meet food security and nutritional needs
▪ Promotes commercial aspects and increases family incomes
▪ Generates healthier products for consumers
▪ Builds up synergies and networks
▪ Encourages social networks
▪ Promotes organic production and common sales
▪ Generates interest among other farmers to take part in the initiative
▪ Generates new market channels
▪ Strengthens trust, reputation and knowledge exchange
▪ Reduces costs through collective marketing and purchase of inputs
▪ Guarantees organic quality of products

Source: authors' elaboration, based on interviews.

HOW IS BUSINESS CARRIED OUT?

The FV-PGS initiative is coordinated by a Secretariat of three employees, making up the central management that coordinates PGS activities: the Executive Director, Treasurer and Secretary. The PGS model followed by FV-PGS uses a collective management approach whereby the community farmer groups are the members. The PGS farmer groups have clear and established roles and commitments and each group has a leader who carries out specific duties. On average, each farmer member uses between 0.05 and 0.10 ha for vegetables. Weekly sales revenue for each group is between US$50 and US$100 (eight to ten customers and some supermarkets). Producers receive approximately US$200 per month (for a six-month season) in revenue from the sales of vegetables through FV-PGS.

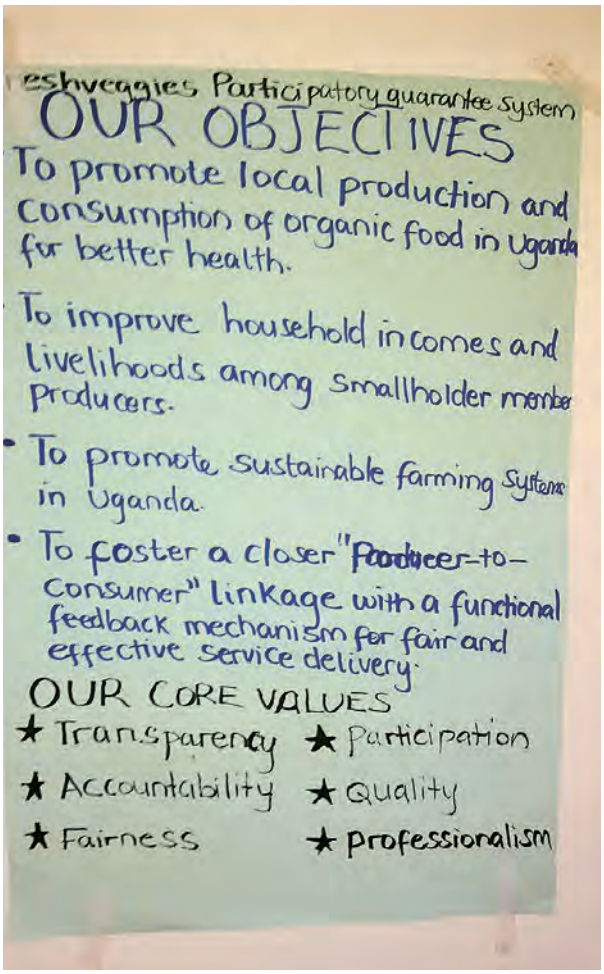
The FV-PGS business model has the following characteristics.

1. ***Community embeddedness.*** FV-PGS is integrated into its community and was designed and created with the aim of responding to and meeting the specific unmet socio-economic needs of various farming communities. Low yields, low incomes and poor access to markets can be resolved by the promotion of healthy feeding and sustainable farming practices. Organic standards and laws that orient the FV-PGS are locally accessible and take into account the specific cultural ties and norms of each community, making the initiative socially adaptable. The initiative is a community network of smallholder farmers composed of three autonomous farmer groups that collectively plan their production (to stagger harvest timing and crop variety) and collectively market organic fruit and vegetables. FV-PGS was built on an existing women's savings and credit cooperative. It was created in response to the need to promote healthy feeding and sustainable farming practices among its members and to earn sustainable household incomes from sales and delivery of fresh organic foodstuffs to consumers in Kampala's business district and in the areas where farmer members are located. These locations enable producers, processors, intermediaries and consumers to acquaint themselves, merging links between people inside and outside the usual social networks, especially between producers and consumers.
2. ***Financial autonomy.*** The initiative has operated with its own resources such as skills, funds and assets to achieve its actual scale. This independence has constantly generated benefits that have been fairly shared among participating members. Collaboration, regular communication and the creation of space for dialogue generated by this initiative encourage financial independence as a goal in the transition towards sustainable agriculture.
3. ***Oral agreements.*** Small farmers agree to work together, according to internal standards, to produce and market as a group. Through ongoing oral agreements, members supply market demand. Prices, delivery method and quality are established for a given season. Members are free to sell certain local vegetables on farm, although some vegetables are grown specifically for the FV-PGS scheme or delivered to market channels.
4. ***Inclusivity.*** The PGS principles of FV-PGS promote the participation of all stakeholders in organic production and marketing. Their

Compost preparation

Source: A. Loconto, 2015.

FV-PGS common objectives

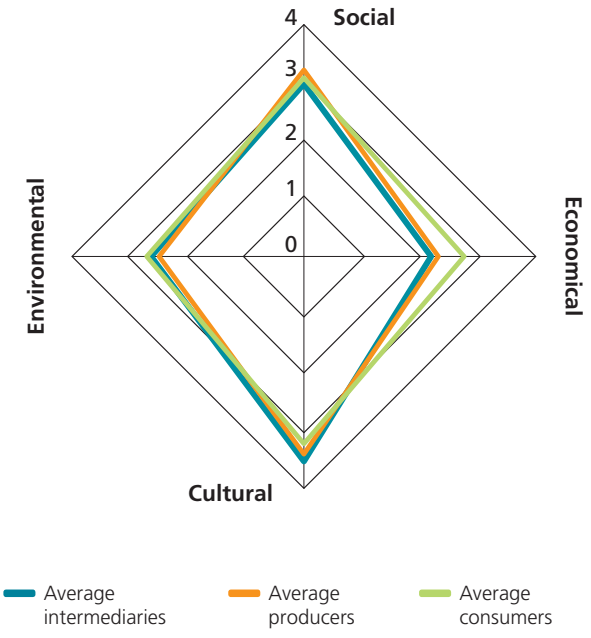


Source: A. Loconto, 2015.

design and purpose is to serve disadvantaged and vulnerable groups of producers that have limited participation in markets and no access to information or support to improve their situation. The majority of FV-PGS members are rural women (76 of 88 members, or 86 percent). Inclusivity does not only mean the participation of small farmers and women, but also the interactions between them that bring empowerment. PGS helps build better relations among family members and with other families in their social networks.

5. ***Common production and marketing approach.*** FV-PGS is an initiative that has created a network of small farmers organized in community groups working autonomously according to the principles of collective production, planning and marketing. FV-PGS encourages farmers to work as a team, trading collectively as an integrated community and creating linkages with consumers, ensuring feedback for improvement.
6. ***Participatory and continuous improvement.*** Members of this initiative, including consumers, can participate in meetings, committees, on-farm training and other activities to promote sustainable practices and actions that help continuously to build the member's capacities and competences. FV-PGS is efficient in terms of meeting social and economic goals, and members believe that they can improve the initiative by working on encouraging the participation of producers as members with the objective of scaling up in terms of adding producer groups to the network.
7. ***PGS for quality assurance.*** FV-PGS operates according to the participatory principles of PGS. This local quality assurance is based on the participation of actors who certify farmers and products with agro-ecological attributes. In FV-PGS, farmers agree to work together as a group according to internal control standards to produce, market and trade collectively. FV-PGS has strengthened the objectives of the initiative, thereby generating results that benefit all actors (Table 3).
8. ***Internal control system.*** FV-PGS constantly undertakes internal inspections, which are carried out by members with the objective of developing members' capacity to understand the benefits of adopting sustainable practices as well as to renew their oral contracts, share information about market orders and discuss product quality.
9. ***Strong cultural, environmental and social sustainability.*** FV-PGS members perceive the initiative to be strong in terms of its social, cultural and environmental performance (Figure 2). The Figure shows that there is no significant difference in the perception of the initiative's sustainability among the actors, which indicates that they have a good social, economic, environmental and cultural coherence. This coherence in perception can be linked to the high participation of all members in the production, management and marketing of products, and their participation in internal control through the PGS processes and in the process of improving the initiative.

FIGURE 2
Perception of sustainability (n=15)



Source: authors' elaboration.

HOW ARE MARKETS CREATED?

Where do production inputs come from?

Farmers have access to ecological inputs from different sources – 20 percent of inputs come from their own farm production, giving them on-farm self-sufficiency and certainty about ecological quality, while about 30 percent of inputs come from exchange with other farmers within the group through the seed saving and exchange scheme. This provides benefits such

as biodiversity promotion, local and indigenous seed conservation, enhanced reputation and close relationships among farmers. The remaining 50 percent of inputs come from stores and seed companies through a group purchase scheme with individual contributions. With a contribution of about US$40 (about US$1.5 per farmer) each season, each group buys a specific variety of seed, depending on market demand. Seeds may include vegetables, fruit and tubers – leeks, spinach, lettuce, carrots, apple bananas, cassava, sweet potatoes, tomatoes, etc. Seed quality assurance is the principal benefit perceived by farmers through this purchasing scheme.

Where do products go?

FV-PGS has a wide range of market channels (Table 4). However, there are four principal channels: 60 percent of farmers' production is allocated to home consumption; about 20 percent is sold on farms; about 15 percent is sold through the FV-PGS scheme, which includes local restaurants, supermarkets, organic shops and home/office deliveries; and about 5 percent of production is sold in farmers' markets.

Farmers prefer on-farm sales mainly because they do not have to pay transport costs; customers come to the farm and are not too selective; there is direct contact between producers and consumers, providing feedback; and payment is in cash. Moreover, it is the farmer who appropriates (and is compensated for) the entire production and marketing process.

FV-PGS is the second most preferred market channel, mainly because it contributes to a constant household income; improves knowledge through advisory services about production, quality and marketing skills; provides a wider consumer base; and brings recognition through organic certification.

What marketing strategies are used?

The private sector and final consumers are important in the marketing of FV-PGS products. Home and office deliveries are preferred when selling products, in order to spread the organic concept and extend the consumer base, as farmers can make direct contact with consumers. However, farmers try to choose the most consistent market channel and one that offers regular sales.

Each cluster of producers has a marketing team of three people who are in charge of each member's sales, rejects and payment records, as well as being responsible for meeting organic requirements and finding new customers and market channels.

TABLE 4
Where can FV-PGS products be found?

Market channel	
On farm	20% organic
Direct sales	20% organic and conventional
Box scheme	
Home/office deliveries	
Speciality shops	
Internet sales	
Consumer clubs	
Open-air markets	
Supermarkets	
Restaurants	
Small shops	
Traders	
Own consumption	60%

Source: authors' elaboration.

Meetings, committees and on-farm visits are used to communicate about new customers and market channels. Promotional materials such as videos, pictures, posters, flyers and t-shirts, social networks and e-mails, and product demonstration and tasting are used to promote products. As a quality control strategy, FV-PGS only accepts organic and high-quality products for market. However, there are often specific personal oral agreements between producer and consumer (as between delivery person and buyer) where opinions and preferences about quality and general good appearance of products are deferred to by FV-PGS.

Challenges or opportunities for market access?

FV-PGS faces several challenges in accessing agroecological market channels. Farmers indicated that FV-PGS has not still developed the effective logistics needed to reach out to more consumers and market channels in order to match supply with demand. These logistics include the creation of more trading spaces and the opening of better local market channels. Such advances would reduce the present long distances travelled to markets, cut logistical costs and enable more members to participate in local market arrangements. The result would be a more participatory market based on a consumer-driven approach and appropriate transportation that could reduce food losses. Both consumers and intermediaries found that there is

an inconsistent supply of FV-PGS agro-ecological products in markets, particularly during the dry season (seasonality). Consumers also indicated that, apart from the long distances to direct markets, uncertainty about product supply, adverse weather, location and security are factors that limit their access to agro-ecological markets.

HOW IS VALUE CREATED?

What are the characteristics that give value?

Sensorial and organic qualities were significant in qualifying the agro-ecological and organic products demanded by intermediaries and consumers in the FV-PGS scheme. In general, all market channels require high-quality products – what is most wanted is "freshness". However, characteristics such as "clean" products and "organic" integrity were often mentioned (Figure 3). Producers (16) noted that consumers and intermediaries across the board demanded physical and ecological qualities that were mentioned together. For example, in the FV-PGS scheme (home/office deliveries, supermarkets and organic shops), the most important qualities of products were their organic characteristics and whether they were fresh, clean, sorted, graded, packaged and delivered (especially for organic shops and home/office deliveries). In on-farm sales, consumers and intermediaries were not so selective but instead asked for fresh and tasty products, large volumes (intermediaries), no grading, no sorting and no washing. This shows that consumers who are not departing from their habitual shopping habits are looking specifically for fresh, packaged organic products, but those who are willing to go to farm production areas are focused less on the visual aspects of products and more on those of the farm.

Creating shared value?

Direct contact between producers and consumers is the principal way of communicating the qualities mentioned above (86 percent of respondents; Figure 4). Sustainable practices and qualities are further shared through training, events, meetings, on-farm visits, workshops, and on-farm sales and direct delivery of products. Word of mouth between producers and consumers and between consumers (families and friends) is the second most important way of communicating quality in FV-PGS. The initiative considers that a satisfied consumer is key to sharing information about the quality of its products. Ensuring and maintaining high quality are fundamental. FV-PGS also uses media such as the Internet, social media, radio and e-mails to share information on quality, through articles, pictures, videos and events, as well as labels and promotional material such as posters, flyers, samples and t-shirts. The use of these media has strengthened trust in the initiative, enhanced its reputation and facilitated the creation of spaces where discussions on quality can take place. Consumers are active in sharing information, feeding back information about good and bad product quality. They do this either through direct contact at deliveries and farmers' markets, or by telephone and e-mail. All suggestions and comments are formally communicated to farmers.

When setting market prices, the initiative takes into account production costs, prices for organic products listed at the NOGAMU trading point and logistical considerations. The market prices are explained and discussed with farmers at meetings where they can compare prices and understand the logic behind them and how they can be achieved. Farmers generally calculate production

FIGURE 3
Characteristics of agro-ecological products

Source: authors' elaboration.

Packed gooseberries

Source: J. Matovu, 2015.

FIGURE 4
How is quality communicated?

Source: authors' elaboration.

costs and price-setting mechanisms with consumers in order to ensure transparency and build up trust. Customers are motivated by the initiative to provide feedback on prices and to express their opinions by phone or e-mail. Meetings, deliveries, periodic surveys and invoices are further means for farmers and intermediaries to be aware of prices and discuss them with consumers. Producers perceive prices to be fair. On-farm sales to direct consumers are considered fair since they allow negotiable prices. However, on-farm sales to intermediaries may not always be fair since low prices are generally offered. Nevertheless, these sales provide a quick market solution when farmers have an abundant harvest and no market options available (Table 5). FV-PGS delivery prices are considered to be fair since they represent a better price compared with the retail price.

SCALING UP, WHERE TO NEXT?

A number of important changes have helped in promoting the current scale of FV-PGS.

TABLE 5
How fair do actors think the prices are?

	On farm	Farmers' markets	Traders	Speciality shop
Mean*	4.0	4.0	3.0	4.33
N = 22	17	3	16	3
Standard deviation	0.000	0.000	0.000	0.577

* 1 = very unfair; 2 = unfair; 3 = neither fair nor unfair; 4 = fair; 5 = very fair.
Source: authors' elaboration, based on interviews.

1. ***Continuous improvement of product quality.*** The initiative promotes organic production through frequent meetings, committees and on-farm visits. As a result, producers have generated high-quality products, especially vegetables, to meet market channel demand. FV-PGS inspectors regularly make control visits to farms to evaluate organic quality, and to discuss producers' practices and any quality issues. An internal control system is also used to improve product quality.
2. ***Greater product variety.*** Members commit to growing and keeping indigenous crops and plant varieties. This promotion and reproduction of native and local seeds have improved product diversification. A greater variety of fruit and vegetables can be provided not only through on-farm sales but can also be delivered to market channels. At the beginning of each season, FV-PGS asks producers to plant at least three vegetables specifically for the FV-PGS scheme in the season but members are free to carry out on-farm sales for other local vegetables.
3. ***Volume and frequency of supply.*** Working together as a group has provided a platform to generate economy of scale and a constant frequency of products that enable farmers to meet the growing demand for organic products. Consumers have noted the increases in volume and frequency of certain products, such as leafy vegetables, and more consistency in supply each season.
4. ***Organic packaging.*** The initiative has greatly reduced the use of synthetic materials in packaging its products and instead uses natural materials. FV-PGS's unique feature is its natural, organic and attractive packaging that relies upon paper bags and baskets made from natural and local products such as palm and banana leaves.
5. ***Progressive growth of consumer base.*** The initiative – farmers in particular – has seen growth in the number of consumers that have joined FV-PGS. In fact, consumer groups have increased over the years from five to eight home deliveries and to 20–50 home/office deliveries. In addition to individual on-farm sales, sales in organic shops and supermarkets have increased, indicating that there are also more non-direct consumers. Consumers have been key facilitators in driving increased demand – satisfied consumers share their experiences with family and friends and consumers make

recommendations to FV-PGS about potential consumers to contact.

6. ***Transparent payment.*** FV-PGS uses business operation documents (invoices, receipts, delivery notes, payment vouchers, etc.), specifically at different levels, to build up a transparent payment system with the necessary level of participation.

These changes have been indicators of the initiative's positive progress despite the challenges it faces. FV-PGS has belief in its potential and the changes have strengthened the need to continue operations adopting a model of gradual growth. More members and new interested farmers are now able to appreciate the importance of the FV-PGS initiative and its relevance for the community and their households. FV-PGS reports growing interest from consumers to participate in ecological activities that promote sustainable agriculture and consumption. Consumers provide feedback to producers about their quality preferences, and advertise the initiative within their social networks, thus strengthening partnerships and contributing to creating new markets.

With increasing support for organic production in the country and growing demand, FV-PGS envisages scaling up by increasing the number of producer members aggregated in local clusters to increase production and obtain better access to market channels. To do this, it has several strategic ideas.

- Increase the number of producer groups from four to five in each agro-ecological area, with about 200 active members in each, and facilitate mobilization of production from farmers living in distant locations in peripheral districts to the various central areas and to the Kampala district in particular.
- Client base expansion in the principal market channel, including direct sales through home and office deliveries.
- More member activities and participant integration, including open farm days, school farm visits and fun days in farms. These activities strengthen relationships and trust, and give transparency.
- Plan educative programmes in the mass media for farmers and consumers to include sustainable agriculture and organic consumption practices.
- Acquire certification to use EAOM *Kili Mohai*, the common organic logo in Uganda, on products.

These strategies require internal commitment more than external support. To scale up, proprietors, directors and producer members will need to dedicate more time, expertise and finance to the enterprise. Social support is also required from local leaders and other stakeholders in order to increase the visibility of the initiative. Moreover, external financial support is clearly needed to implement these work plans.

Constructing markets for agroecology

An analysis of diverse options for marketing products from agroecology

The Policy Recommendations on Connecting Smallholders to Markets recently adopted by the Committee on World Food Security (CFS) highlighted the importance of markets linked to local, national and regional food systems as the most remunerative for smallholders and beneficial for food security and rural economies. They noted that "despite their importance, these markets are often overlooked in data collection systems, which impacts negatively on the evidence base for informing public policies" and urged the Rome-based agencies to help fill this data gap, in collaboration with smallholders' organizations.

This study is the first attempt to begin to respond to this recommendation. Building on the recent study *Innovative markets for sustainable agriculture. How innovations in market institutions encourage sustainable agriculture in developing countries* (FAO, 2016a), and recognizing the importance of agroecology in contributing to sustainable food systems, this exploratory study examines in detail 12 initiatives that have successfully built markets for agroecological products. It also builds on the stakeholders' discussion held during the researcher-practitioner workshop on "innovative approaches for linking sustainable and agroecological production to markets in developing countries" in Bogotá, June 2016.

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