



HAL
open science

Institutional Innovations for sustainable agricultural practices

Allison Marie Loconto

► **To cite this version:**

Allison Marie Loconto. Institutional Innovations for sustainable agricultural practices. FAO Technical Seminar/ Webinar on What markets support agroecology and sustainable production systems?, Jun 2016, Rome, Italy. FAO - Food and Agriculture Organisation, 2016. ⟨hal-01571901⟩

HAL Id: hal-01571901

<https://hal.science/hal-01571901v1>

Submitted on 2 Jun 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



HAL Authorization

“What markets support agroecology and sustainable production systems?”

FAO Technical Seminar/Webinar
10 June 2016,
FAO Headquarters, Rome

Report and main findings

Contents

What markets support agroecology and sustainable production systems?	2
I. Introduction	2
II. Institutional and Market Mechanisms for Sustainable Food Production and Consumption	3
a. Main recommendations emerging from the International and Regional Symposia on Agroecology	3
b. Institutional Innovations for sustainable agricultural practices Allison Loconto (AGD).....	3
c. Short Value Chains linking sustainable production to markets	
d. Successful organizational models for sustainable forest and farm production systems	8
III. Questions & Answers	10

What markets support agroecology and sustainable production systems?

I. Introduction

Agroecological practices are recognized as providing ecological and social benefits, yet their wider adoption faces significant market barriers. Existing market channels (particularly formal markets) are often not equipped to handle the diversity of products coming from agroecological production systems. Since almost all policy and investments are focused on the expansion of formal markets this presents significant challenges for agroecological production systems. To what extent can formal, often globalised, markets adapt to receiving agroecological products? On the other hand, what is the potential for creating new markets or using existing informal markets that are more adapted to agroecological production from the outset? The aim of the seminar “What markets support agroecology and sustainable production systems?” was to present the results of FAO research and field work which could contribute to answering this question. The seminar presented initiatives from across FAO departments and divisions.

Agroecology is a scientific discipline, a set of practices and a social movement. As a science, it studies how different components of the agroecosystem interact. As a set of practices, it seeks sustainable farming systems that optimize and stabilize yields. As a social movement, it pursues multifunctional roles for agriculture, promotes social justice, nurtures identity and culture, and strengthens the economic viability of rural areas. Such an approach to farming allows the creation of resistant and resilient productive ecosystems which are less dependent on external chemical inputs, lowering costs for farmers while stabilizing productivity.

Agroecological farming is generally characterized by diversified production, thus holds the potential to generate diversified income sources for farmers reducing economic and social risks. In addition, diversified production lends itself to alternative market configurations based on short value chains, which favor the emergence of local networks of social and economic relations, connecting consumers to farmers, thus citizens to their territory. In this light, agroecological food-systems must be intended as the interactive and harmonic combination of environmental, social and economic dimensions and agroecology as a sophisticated interdisciplinary and knowledge-intensive approach to farming, which generates positive spill-overs on society as a whole. The adoption of such an integrated approaches requires innovations across the entire food system, including governance, policies, markets, research, culture and diets, among others. However, market and institutional environments are core influential factors that enable or constrain the implementation of sustainable agroecological practices and should therefore be created and supported through specific public policies and institutional mechanisms.

II. Institutional and Market Mechanisms for Sustainable Food Production and Consumption

a. Main recommendations from the International and Regional Symposia on Agroecology Hans Dreyer, Director Plant Production and Protection Division (AGP)¹, FAO

Through a number of international and regional Symposia on agroecology organized by FAO in 2014 and 2015, it was possible to gather scientific and practical evidence on the institutional and market conditions that favour the emergence of agroecology. These main recommendations from the Symposia related to such enabling market conditions were: (i) To adopt strategies which prioritize sustainable local and territorial food production, distribution and consumption, while strengthening capacities for collaborative innovations locally; (ii) To give special attention to youth, through the development of dynamic agroecological models which retain youth in rural areas; (iii) to promote participatory and low-cost guarantee schemes -such as the participatory guarantee systems (PGS)- which are well suited for agroecological food systems; (iv) to support governments in promoting public policies (public procurement policies, incentives, proper infrastructure and subsidies) which promote agroecological systems; (v) to foster programmes to increase consumer's awareness and education, as a very much needed contribution to a more favourable environment for the emergence of agroecology, in particular, to strengthen nutrition and health, based on local food products and habits.

As pointed out by Mr. Dreyer, the seminar constitutes a first important exercise for building synergies within FAO, in order to continue generating the cross-sectoral and inter-disciplinary knowledge needed in order to provide integrated responses to multifaceted challenges.

b. Institutional Innovations for sustainable agricultural practices

Allison Loconto, Visiting Expert, Standards and Institutional Innovations for Sustainable Agriculture (AGP), FAO

Allison Loconto, visiting expert from INRA, working on standards and institutional innovations for sustainable agriculture in FAO, presented the results of two research projects and a multi-disciplinary workshop² on institutional innovations that favour sustainable agricultural practices, with a particular focus on Participatory Guarantee Systems (PGS)³. Institutional Innovations are intended as new rules and forms of interaction and organization among the variety of actors who make part of a food system, in particular by favoring collaborative interaction among actors that have not traditionally worked together.

¹ <http://www.fao.org/agriculture/crops/agp-home/en/>

² Information about this process can be found in the report Vicovaro et al. (2016), available at <http://www.fao.org/3/a-az561e.pdf>, which gathers the results of a multidisciplinary workshop in Bogota, concerning the two research projects. The workshop allowed formulating a policy brief available at: <http://www.fao.org/3/a-i5398e.pdf>.

All findings are published in the book: "Innovative markets for sustainable agriculture: Exploring how innovations in market institutions encourage sustainable agriculture in developing countries" (Loconto et al. 2016) available at: <http://www.fao.org/3/a-i5907e.pdf>.

³ The projects were carried out in collaboration with Anne Sophie Poisot (AGP), Pilar Santacoloma (FAOSLM), Marcello Vicovaro (ESN), Alejandra Jimenez (ESN), Emilie Vandecandelaere (TCI) and Florence Tartanac (ESN).

These new forms of interaction enable local communities to redefine sustainable practices, in terms of production, commercialization, recognition in the market and consumption.

Participatory Guarantee systems

Participatory Guarantee Systems (PGS) are locally-based quality assurance systems. They certify producers based on active participation of stakeholders in localized groups – composed of farmers, consumers, researchers, municipal public officials, local businesses- and are built on a foundation of trust, social networks and knowledge exchange. PGS are alternative certification mechanisms which proved very efficient in enabling family farmers involved in agroecology and similar sustainable production systems to reach markets in a way that recognizes their particular conditions, constraints and possibilities. PGS offer low-cost, participatory and informal certification standards, mostly suited for local and regional commercialization and consumption. PGS represent an innovative and integrated approach that goes beyond the traditional value chain model, by bringing together different stages, processes and actors of the traditional value chain into a localized group. One of the main virtues of this approach relates to the possibility of switching and re-defining roles and responsibilities of local food actors. Institutional innovations, like PGS, favor the commercialization of sustainable products through diversified market channels which go beyond conventional value chains, including inter alia: (i) Farm stalls (on farm sales) (ii) Farmers' markets and Eco-fairs (iii) Box-schemes and consumer clubs/cooperatives (iv) the hospitality industry (restaurants, hotels, tourism) (v) Public procurement (schools, hospitals, prisons) (vi) Input markets (seeds, bio-fertilizers).

PGS in Bolivia

PGS in Bolivia is based on the creation of municipal level committees involving different actors. National policies, laws and regulations can play a supportive role for PSG systems. In fact, Bolivia is one of the few countries in the world where PGS are recognized and regulated by the State. Law N°3525 states that when a PGS is created, its representative has to submit a compliance report to the National Service for Agricultural Health and Food Safety (SENASAG). SENASAG monitors and verifies PGS activities and submits a report of the process to the National Council on Ecological Production (CNAPE), the body that authorizes certification and the use of the country's two organic labels: 'In Transition' or 'Ecological'. The legal framework that regulates PGS stipulates that each PGS must have a guarantee committee comprising representatives of farmers, consumers and other interested parties. The committee is responsible for ensuring that the standards of the PGS are upheld and a record kept of every farm inspected. The inspections themselves are carried out by a small group, composed mainly of farmers, who conduct a 'social control' of their neighbors' farms and submit their report to the guarantee committee. The inspection is called a 'social control' or 'peer review' because the idea is that the inspection should be a learning process whereby peers help each other to improve their practices and use the influence of peer pressure to ensure that the ecological standards are being met. In addition law N° 3525 introduces an important distinction between export and domestic certification, requiring third-party audit for the former while allowing the use of the "ecological label" and the adoption of PGS for the latter.

Lessons learned: elements which hinder or favor the emergence of institutional innovations.

The following elements should be considered when encouraging enabling environments that can strengthen and scale up of institutional innovations favouring sustainable production systems: **(i)** In some cases, the lack of national legislation (e.g. on organic) may allow private actors to autonomously organize innovative systems and can allow these initiatives to gain legitimacy (in the private and public sectors) over time without some of the constraints linked to prescriptive regulations. However, in other cases the lack of legislation that recognizes PGS as a certification option may block its use. These elements suggest the need for paying particular attention to the legal and regulatory environment, which influences the emergence of institutional innovations; **(ii)** Continuous capacity building is fundamental and can be provided both through formal training and rotating responsibilities among different actors within the systems; **(iii)** Cost reduction is an important incentive for engaging in PGS; PGS rely largely on volunteer time, but in certain cases small fees may be needed to balance out time and travel costs; **(iv)** PGS create multiple levels of oversight, ensuring the credibility of certification; **(v)** It is crucial to involve smallholders in value chains not only as producers but rather as implementers of a system that give them new roles to play; **(vi)** Shifting roles and sharing responsibilities between producers, consumers, researchers, intermediaries and public officials favors the emergence of reciprocal relationships as opposed to mono-directional solidarity; **(vii)** Scaling-up objectives should be measured against the risk of losing quality and deteriorating human relations, which are the main sources of value in agroecological systems. Alternatively it is possible to aim at scaling-out by replicating local experiences to other communities, creating many different networked initiatives instead of making one single initiative grow bigger.

c. Opportunities for sustainable food systems in the context of public food procurement By Israel Klugg –Coordinator PAA⁴

Israel Klug, Coordinator of the Purchase Africans for Africa Programme (PAA) from the FAO Nutrition and Food Systems Division, provided insights on opportunities and challenges to be considered when linking the promotion of agroecology and sustainable agricultural practices to the implementation of public food procurement programmes⁵.

When implementing Public Procurement Programmes (PPP) for food acquisition, governments address several different objectives such as food system regulation (price regulation, strategic food reserves), catering for public employees, food access, promotion of nutritious food habits (school feeding), food aid, and nutritional programs and interventions. Most commonly, these programs are based on procurement criteria which aim at complying with principles of efficiency, legality and impartiality, and consist in minimum quality standards to be reached at the lowest price. Often, however, PPP objectives are linked to those of other private and public policies and contribute to a broader range of public interests. In these

⁴ <http://paa-africa.org/>

⁵ For further information on PPP and its potential for supporting sustainability objectives, please refer to the following publications:

IPC-IG (2013): <http://www.ipc-undp.org/pub/IPCTechnicalPaper7.pdf>

De Schutter(2014): http://www.srfood.org/images/stories/pdf/otherdocuments/20140514_procurement_en.pdf

UNEP (2012): <http://www.unep.org/10yfp/Portals/50150/10YFP%20SPP/UNEPImplementationGuidelines.pdf>

cases, the set of procurement criteria can be expanded and build upon principles which include food sovereignty, sustainability and social justice.

Evidence suggests that public food procurement programs can contribute to create a welcoming and supportive environment for smallholder farmers, food producers and organizations who decide to engage in agroecology and sustainable production systems. In fact: (i) predictable and regular food public procurement is adaptable to smallholder's needs and promotes inclusiveness; (ii) targeted purchases may interfere positively on non-competitive markets and on farmers' revenues, promoting market inclusiveness for smallholder farmers; (iii) predictability of prices and contracted quantities may reduce engaging on sustainable food production and marketing, by providing information of future variables and therefore supporting better planning; (iv) regularity of contracted quantities may provide a learning curve opportunity to farmers and their organizations, in order to progressively improve quantity (productivity/aggregation) and quality of food produced in a timely manner; (v) diversified and/or context-based food procurement (traditional local products) may be adapted to farmers' skills. Drawing from these considerations there is room to continue investigating the potential synergies between public food procurement and sustainable production models, especially in terms of impact evaluation.

Developing and putting PPPs to work may present challenges that go beyond the procurement process in itself and relate to other aspects of agricultural systems. For example, agriculture in Sub-Saharan Africa is characterized by a generalized lack of financial and technical services as well as of technologies and infrastructure, weak regulatory environments and poorly structured value chains. These conditions suggest that productive capacity -which is a prerequisite for PPPs- cannot be taken for granted and that PPP may need to be accompanied by support mechanisms aimed at improving it.

Lessons Learned: elements to consider when incorporating sustainability objectives in PPPs

In principle, incorporating sustainability criteria within PPPs can contribute to boosting initiatives of sustainable production. However it is important not to overlook the following considerations: **(i)** as mentioned above it is important to test the scale of public food purchases against the supply capacity in a certain area and, where needed, to support it with adequate interventions; **(ii)** the success of sustainable PP initiatives may depend on the capacity of governments to grant a price premium, which in turn may depend on governments' fiscal capacity; **(iii)** the possibility to scale up sustainable PP initiatives may depend on the existence of sustainability-oriented agricultural policies and programmes, agricultural services and productive assets, food safety regulations, legal frameworks and public services (e.g. registry of farmer's associations)

d. Short Value Chains linking sustainable production to markets

by Pilar Santacoloma, Ph.D. Agrifood Systems⁶, FAO

Pilar Santacoloma, Agri-food Systems Officer of the FAO Sub-regional Office for Central America addressed the benefits of short value chain in linking sustainable and agroecological food production with markets in developing countries, based on a case study from Mexico.

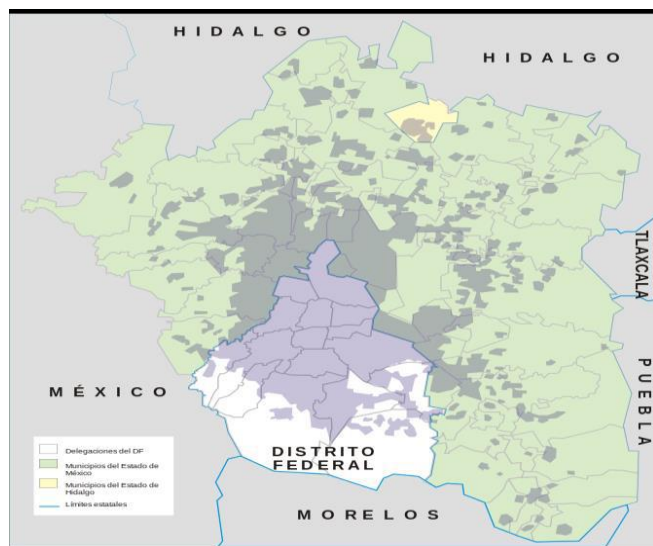
Based on a series of studies carried on mainly from Europe and the US, which collect the views of sixty-thousands to eighty-thousand farmers, it is possible to identify a common denominator underlining short

⁶ <http://www.fao.org/ag/ags/en/>

value chains, which refers to the concept of “proximity” both in its geographical and social-organizational dimensions, as described in Parker (2005). The concept of proximity takes into account the positive effects of short value chains on site-specific cultural identity and on the ability of local actors to engage in new forms of “food citizenship” (Renting et al, 2012). Proximity implies enriching the array of attributes generally used to define food quality, including criteria (e.g. tradition, culture, sustainability, local production) which go beyond the physical and more conventional ones (freshness, color, size).

Peri-urban agricultural heritage systems of Mexico City

Mexico is the third mayor mega-city in the world -over 20.000.000 people- characterized by a highly concentrated food distribution, hosting the biggest wholesale market in Latin America and one of the biggest in the world. Mexico City is also experiencing increasing obesity rates. The peri-urban area of the city presents two important agricultural heritage systems which are being threatened by urbanization pressure, the “Milpa-Solar System” and the “Chinampa System”⁷. There have been various attempts by different actors, to promote short value chains to maintain and preserve these systems and to favor the provision of healthy food.



The diversified products generated through these systems enter a value chain which valorizes those quality attributes typical of proximity systems, such as culture and local identity. This value chain takes the form of a network of mobile local markets, fairs and alternative stores, which connects a variety of producers, intermediaries and processors. These type of systems prove particularly favorable for the inclusion of women, especially as artisans and processors able to offer elaborated products. The network also relies on the role of social intermediaries who promote knowledge exchanges and collaboration, favoring the implementation of participatory guarantee systems and providing capacity development.

Figure 1: The peri-urban agricultural heritage system of Mexico City (in white on the map)

These networks are threatened, inter alia, by the raising power of the retail sector in the context of the urbanization process. In this regard, strengthening proximity can be deemed crucial for preserving and reinforcing these networks and the productive systems which aliment them.

Lessons learned: strengthening proximity for sustainable food systems

⁷ These systems are respectively certified and in the process of certification as Globally Important Agricultural Heritage Systems by FAO-UNESCO. More information available at <http://www.fao.org/giahs/giahs-sites/central-and-south-america>

Strengthening proximity in short value chains and networks requires a strategy based on upgraded governance, legitimacy and public sector support to improve opportunities for the exchange of knowledge, practices and products across the network. Such a strategy can be summarized into four components: **(i)** fostering inter institutional-coordination; **(ii)** improving services to mobile markets; **(iii)** creating a knowledge exchange platform to link the different types of short supply chains in order to create a network; **(iv)** Reviewing the PGS policy to solve a series of restrictions which are currently hindering the smooth functioning of this tool.

d. Successful organizational models for sustainable forest and farm production systems Jeffrey Campbell, Manager Forest and Farm Facility⁸, FAO

Jeffrey Campbell, Manager of the Forest and Farm Facility (FFF) from the Forestry Department, provided examples of successful organizational models which prove efficient in linking sustainable agroforestry systems to appropriate markets.

FFF promotes sustainable forest and farm management by supporting local, national, regional and international organizations and platforms for effective engagement in policies and investments that meet the needs of local people. FFF's work departs from two important understandings: (i) the territory is a "multi-functional landscape mosaic" and it is important to embrace its complexity to optimize good living, livelihoods and ecological health; (ii) organization is the key to properly enable livelihoods to achieve wellbeing and access to markets. In this line, FFF supports organizational capacity for market access, livelihood improvements and advocacy.

FFF experience can provide important insights on the barriers which may be present at the local level: **(i)** Smallholders generally hold very limited negotiating power given that traders – including global brands – generally offer low prices, even for certified products; **(ii)** family farmers who depend on natural resources are often considered "illegal" or at least "informal", which further weakens their ability to negotiate; **(iii)** the bureaucratic and legal burden for comply with laws and regulations is often unbearable and the process of certification generally is viable only for monoculture mainstream producers; **(iv)** In many cases, groups that are living off the landscape mosaic are often only permitted to trade the lower value products; **(v)** these barriers emerge in the context of and often depend on conditions of informal land tenure; **(vi)** markets are generally developed –and manifest themselves- as vertical single value chains. Consequently, the optimization of a value chain is generally intended as the optimization of a single product through a single flow. This translates into forms of production characterized by single products to be destined to single value chains. Such an approach to market, which is the dominant one, does not resonate with diversified production systems such as the agroecological and more in general family farming systems.

⁸ <http://www.fao.org/partnerships/forest-farm-facility/en/>

Organizing producers for sustainable market access

The process of organizing producers touches upon a number of elements which include aggregating supply, granting quality and ensuring fair prices. By increasing producers' level of organization, through the stewardship of FFF, farmers rapidly expand their possibilities and are enabled to try different traders and begin to get orders. These small but important changes happen rather fast and can quickly translate into fair price increases. Another important element concerns horizontal knowledge sharing and coordination across the market landscape, which is key for market knowledge transfer. These dynamics are generally based on "producer to producer" exchanges and are supported by governmental organizations. In

order to resonate with the agroecological model, organizations should aim at fostering a multi-tier structure, where the lowest level is characterized by the organization of producers in their own enterprises and the county level includes a cluster of groups based on several lead products. Lastly, these groups should be organized and represented on a national level. (Fig. 2)

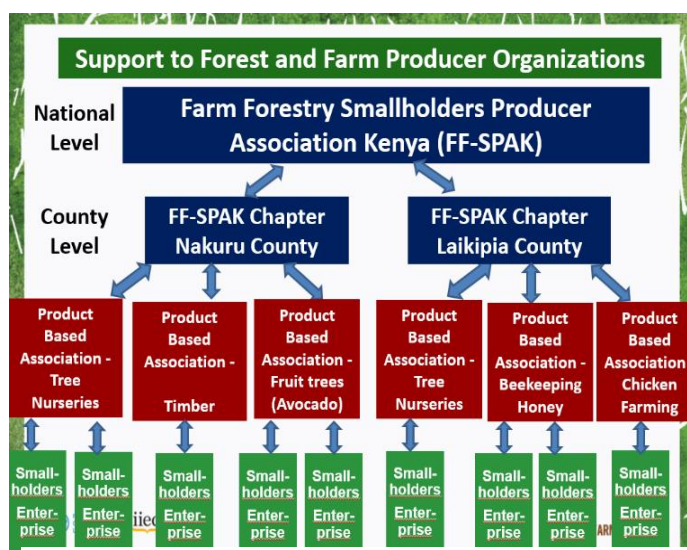


Figure 2: example of a multi-tier organizational model in Kenya

Reforestation by Vietnam's National Farmers' Union

In the past, the Vietnam National Farmers Union (VNFU) had been excluded from the public debate on the conservation of forests' ecosystem services. By fostering the inclusion of NTFP among the services they provide to their members, with support of FFF, the Union was enabled to expand its activities to the forest sector and have a stake in conservation activities. In addition, through the stewardship of FFF and thanks to the allocation of land (one hectare per farmer) by the forest department, 1.000.000 farmers have reforested 3.5 million hectares through mixed farming systems, resulting in the biggest reforestation program of Vietnam. Most farms counted on a portfolio of around thirty products to which they were able to add sustainable managed timber. The latter was positioned, through a slow but steady scaling-up process, to a major supply in the furniture market. At the same time farmers were offered training in market analysis and development by FFF, which also provided organizational stewardship. Shortly after, cinnamon and tree growers formed an association and, by clustering production, they were able to achieve a 15% price increase. Within a short period of time farmers also expanded their operations to processing, obtaining an additional higher value. Furthermore, FFF organized the visit of a group of farmers other farmers who had been previously certified. The knowledge exchange was particularly fruitful and shortly after this experience 500 farmers declared being ready for certification.

Lessons Learned: improving farmers organization for sustainable market access

In order to favor the emergence and functioning of agroecological and sustainable agricultural practices it is advisable to: **(i)** Improve access to and provision of support services, technical information, business development and marketing; **(ii)** Shift from “loans per product” to “loans for products”; **(iii)** Improve local market access and infrastructure, for example by rendering processing more mobile and adaptable to multiple products; **(iv)** Encourage basket value chains and multi product traders **(v)** Strengthen producers associations and organizations; **(vi)** Support fairs and local events; **(vii)** Support certification strategies; **(viii)** Support local, territorial and regional branding, valorizing the local diversity; **(ix)** Foster exchanges among producers; **(x)** It may be relevant to consider the effects of the agroecological development pathway on the distribution of benefits, and use distributional value –as opposed to profit maximization– as an efficiency criteria; **(xi)** The process of creating and strengthening organizations and linkages among value chain actors results in an increase in trust and credibility. Besides the direct positive effects on society and wellbeing, these dynamics have positive effects on logistics.

III. Questions & Answers

Question 1: *Is there a risk that agroecological production will mainly benefit the middle and upper class leaving out more vulnerable categories?*

Answers provided by Panelists

- The results of the market analysis show that the majority of respondents belonged to an average (middle) income range. Additionally, in some cases programs and policies address the issue of equal distribution of benefits directly. This is the case, for example, of public procurement for school feeding or

of PGS which include rules requiring farmers to sell their products only after they have already provided sufficient food for their families.

- The beneficiaries of agroecological systems are both the producers in peri-urban areas, but also the consumers who are participating in short value chains. Importantly, benefits go beyond provision of affordable and quality food and also concern the opportunity to strengthen local identities and a sense of belonging. In addition, agroecology can benefit a wider range of indirect beneficiaries by providing and securing environmental services.

Question 2: What do we mean with “innovation”, whereas agroecology mostly builds upon tradition? How can we ensure the recognition of traditions and ancient systems within FAO policies and the inclusion of farmers in the policy making process?

Answers provided by Panelists

- Innovation means the introduction of an idea, process or technology to a situation that is new; it is not just the introduction of ‘new technologies.’ When it comes to agroecology, it is often more appropriate to think of “institutional innovations” intended as changes in those sets of rules which shape actors behaviors and interactions, in order to create an enabling conditions for an agroecological transition. Multi-actor platforms and participatory guarantee systems are examples of institutional innovation for agroecology. Institutional innovation may also concern the very recognition of traditional systems, which implies re-directing the research agenda and practice –with special attention to participatory research– towards the identification of all kinds of traditional knowledge worth valorizing in order to implement agroecology. The idea of valorizing multiple sources of knowledge in research and policy is indeed innovative.

- The GIAHS and UNESCO system for natural and cultural heritage are important tools for identifying, valorizing and securing the traditional knowledge upon which agroecology builds. These types of experiences create diversified sources of value in a territory and suggest a shift from the idea of "creating value to bring products out" to that of "creating value to bring people in".

Question 3: Which are the challenges in terms of policies and institutional capacity especially at the territorial and local level?

Answers provided by Panelists

- PAA works with different levels of government to engage them in policy dialogue and technology exchange. Among the multiple challenges it tries to address, it is worth mentioning the lack of coherence between the sustainable public procurement approaches PAA proposes and the current agricultural policies. The latter are generally based on conventional approaches (e.g. input subsidies). In order to make sustainable public procurement policies land in a favorable agricultural context, it is also important that ministries of agriculture support and incentivize agroecological and sustainable farming systems.

- Local governments play a critical role and the lack of capacity is indeed an issue that needs to be addressed. In addition, as agroecology is multi-sectoral in nature, it is fundamental to stress the importance of and strengthen capacity for inter-institutional coordination among all the ministries and government divisions, at all levels, which hold a stake in the challenge of fostering agroecology.

Question 4: What is the role of consumers and the limits to their ability to shape food systems?

Answers provided by Panelists

- Long-term social-psychological research shows that even if consumers’ awareness is increased, it does not necessarily lead to behavioral changes. Direct experience by consumers has been shown to be more effective, it may be therefore relevant to adopt experiential approaches to research and to marketing, which can better enable consumers to experience agroecological production systems.

Question 5: How can fisheries be included in the agroecology discourse? Is it about environmental sustainability of operations or it can go beyond that?

Answers provided by Panelists

- There are examples in which community fisheries adopt traditional techniques which take advantage of and respect ecosystem dynamics, and which present the features of agroecological food systems. For example in Hawaii, an indigenous community is rehabilitating a traditional aquaculture system where they create a stone wall with holes between the stones to separate the ocean from a protected pond where algae grows abundantly. Because of the abundant food for herbivorous fish, they will swim in freely, feed on the algae and grow in size. Eventually, they grow too much to fit through the holes, remain trapped inside and then they can be harvested. In comparison to the current state of food security where the islands import more than 80% of their food, this method kept the island population food secure for hundreds of years. Nonetheless, there is a lack of conclusive data on the links between agroecology and fisheries.

IV. Main findings and lessons learned to strengthen markets for agroecology and sustainable production systems

The evidence and experiences shared by the panelists as well as the discussion among participants provided number of findings and lessons learned about the type of institutional and market conditions that enable the adoption of sustainable farming systems on the ground.

How can institutions strengthen markets that support agroecology and sustainable production systems?

- Adopt strategies and frameworks that prioritize sustainable local and territorial food production, distribution and consumption;
- Support governments in promoting public policies (public procurement policies, incentives, proper infrastructure and subsidies) that can promote agroecological systems;
- Strengthen capacity through farmer-to-farmer exchanges, formal and informal trainings and encouraging organizational models that rotate responsibilities among different actors in local collaborative efforts to innovate, develop social enterprises and strategic marketing;
- Improve access to and provision of support services and technical information on agroecology and marketing;
- Support the development of local social markets and economies, encouraging origin based economies, community supported agriculture, local, territorial and regional branding which valorize local diversity, basket value chains and multi-product trading relationships;
- Support producer organizations and associations to strengthen their organizational capacities;
- Give special attention to youth, through the development of dynamic agroecological models which attract youth to rural areas;
- Improve local market access and infrastructure, for example, by rendering processing more mobile and adaptable to multiple products;
- Promote participatory and low-cost guarantee schemes that are well suited to agroecological food systems;
- Foster programmes to increase consumers awareness and education, in particular about strengthening nutrition and health, which are based on local food products and habits and provide experiential learning opportunities.

Other considerations

- Shifting roles and sharing responsibilities between producers, consumers, researchers, intermediaries and public officials favors the emergence of reciprocal relationships;
- Scaling-up objectives should be measured against the risk of losing quality and deteriorating human relations, which are the main sources of value in agroecological systems. Alternatively, it is possible to aim at scaling-out by trying out similar experiences in other communities, creating many different networked initiatives instead of making one, single, larger initiative;
- Incorporating sustainability criteria within PPPs can contribute to boosting initiatives for sustainable production. It is important to consider the following elements: (i) test the scale of public food purchases against the supply capacity in a certain area and support it with adequate interventions; (ii) the success of sustainable PP initiatives may depend on the capacity of governments to grant a price premium, which in turn may depend on governments' fiscal capacity; (iii) the possibility to scale up sustainable PP initiatives may depend on the existence of sustainability-oriented agricultural policies and programmes, agricultural services and productive assets, food safety regulations, legal frameworks and public services.
- It may be relevant to consider the effects of the distribution of benefits, and use distributional value –as opposed to profit maximization- as an efficiency criteria.
- Strengthening proximity in short value chains and networks requires a strategy based on upgraded governance, legitimacy and public sector support to improve opportunities for the exchange of knowledge, practices and products across the network. Such a strategy can be summarized into four components: (i) fostering inter institutional-coordination; (ii) improving services to mobile markets; (iii) creating a knowledge exchange platform to link the different types of short supply chains in order to create a network; (iv) Reviewing the PGS policy to solve a series of restrictions which are currently hindering the smooth functioning of this tool.

Closing remarks

Caterina Batello –Team Leader AGPME-.

The technical seminar “What markets support agroecology and sustainable production systems?” allowed a sharing of numerous perspectives and insights on the socio-economic aspects of agroecological food-systems, contributing to the objective of building an integrated and multi-disciplinary knowledge-base. This first seminar will be followed by a second one on Nutrition and Agroecology. AGPME is looking forward to discuss proposals for additional seminars on other relevant topics. By combining efforts and engaging in a process of knowledge sharing and collaboration within and outside of FAO, it will be possible to bridge the gap between knowledge and actual policies for the promotion of sustainable food and agriculture on the ground.

References

De Schutter, O., 2014. The Power of Procurement Public Purchasing in the Service of Realizing the Right to Food. Briefing note 08, United Nations.

IPC-IG, 2013. Structured Demand and Smallholder Farmers in Brazil: the Case of PAA and PNAE. United Nations Development Programme. Brasilia, Brazil.

FAO. 2016. Innovative markets for sustainable agriculture: Exploring how innovations in market institutions encourage sustainable agriculture in developing countries Loconto, A., Poisot, A.S., & P. Santacoloma (eds.).Rome: Food and Agriculture Organization of the United Nations.

Parker, G. (2005), "*Sustainable food? Teikei, Co-operatives and Food Citizenship in Japan and the UK*", REP working paper 11/05, University of Reading.

Renting, H., Schermer, M., & Rossi, A. (2012). Building Food Democracy: Exploring Civic Food Networks and Newly Emerging Forms of Food Citizenship. *International Journal of Sociology of Agriculture & Food*, 19(3).

Vicovaro, M., Loconto, A. M., Santacoloma, P., & Vandecandelaere, E. (2015). *Innovative approaches to linking sustainable and agro-ecological production with markets in developing countries: a researcher-practitioner workshop. Final report*. Rome: Food and Agriculture Organization of the United Nations.

UNEP, 2012. Sustainable Public Procurement Implementation Guidelines- Introducing UNEP's Approach. Paris, France.