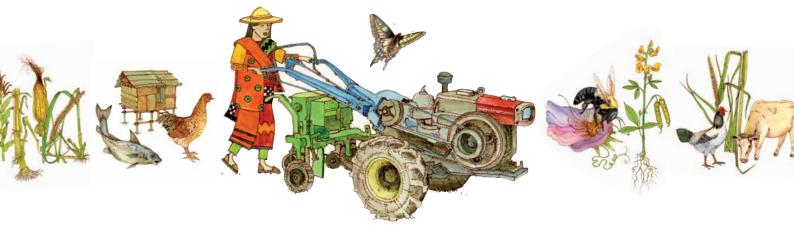


Food and Agriculture Organization of the United Nations



## SUMMARY FOR DECISION-MAKERS

FAO REGIONAL SYMPOSIA ON AGROECOLOGY



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#### FAO REGIONAL SYMPOSIA ON AGROECOLOGY

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, ROME 2016

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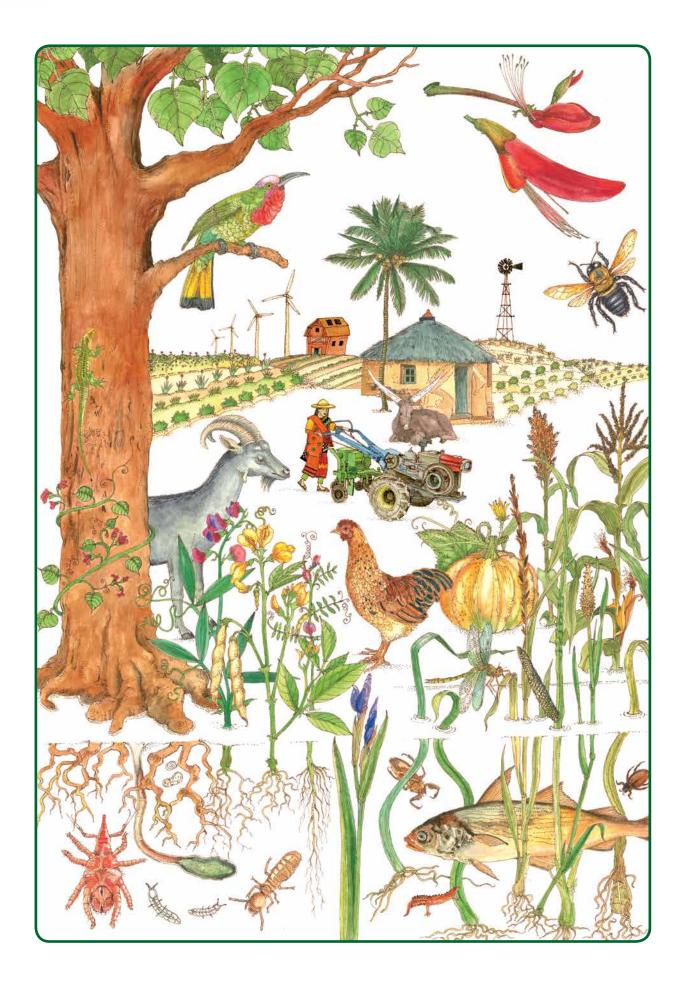
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# **I** INTRODUCTION



In September 2014, the Food and Agriculture Organization of the United Nations (FAO) organized the International Symposium on Agroecology for Food Security and Nutrition. This initiative was born from the recognition that, in the words of FAO Director-General Jose Graziano da Silva: "Agroecology continues to grow, both in science and in policies. It is an approach that will help to address the challenge of ending hunger and malnutrition in all its forms, in the context of the climate change adaptation needed".

Agroecology has been endorsed by the former U.N. Special Rapporteur on the Right to Food, Olivier De Schutter, as well as the current Special Rapporteur, Hilal Elver, by the Latin American Scientific Society for Agroecology, by La Vía Campesina, the world's largest organization of peasant farmers, and by a large international group of scientists and experts, among others.

FAO's International Symposium on Agroecology in 2014 was a major step towards a more integrated institutional approach to agroecology. The symposium emphasized that future food systems need to suit the reality of smallholders and family farmers. Agroecological approaches are a way to reduce dependence on fossil fuels and negative impacts on society and the environment by imitating nature and learning from local agroecological knowledge. The local context should be awarded greater importance: a shift from 'ready-to-use' to 'custom-made' cropping systems



places the producers at the centre of local innovation systems, combining technologies and traditional knowledge. Many initiatives already exist that are built around these principles, with practices that are productive, sustainable, simple, flexible, innovative, dynamic, and developed in accordance with the social and ecological circumstances where they will be deployed.

Conscious of the need to link the agroecological outlook to local and regional socio-ecological realities, FAO chose expand on discussions begun in Rome in 2014 via a number of regional symposia in sub-Saharan Africa, Asia and the Pacific, and Latin America and the Caribbean throughout 2015. The purpose of these meetings was to facilitate a dialogue about agroecology and its benefits, challenges and opportunities, focusing on regional and national levels. This reflects the principle that effective work on agroecology must be based on regional and local realities and economic, social and environmental conditions.

The first FAO symposium on Agroecology in Latin America and the Caribbean took place from 24-26 June 2015, in Brasilia, Brazil. Over 130 participants attended from governments, civil society organizations, academics, and research institutions from 14 countries. A Regional Symposium on Agroecology for Food Security and Nutrition in sub-Saharan Africa took place in Dakar, Senegal on 5-6 November 2015, with almost 300 participants from governments, research, civil society and the private sector. Finally, a Multi-stakeholder Consultation on Agroecology for Asia and the Pacific was held in Bangkok, Thailand on 24-26 November 2015 with 140 food producers, country representatives, scientists and representatives from civil society and the private sector. In all these endeavours, FAO's role has been to foster collaboration and ensure constructive debates among a variety of actors in order to advance science, knowledge, public policies, programmes and experiences on agroecology and enhance food security and nutrition at regional and national levels.

A summary of the contributions and outcomes of the regional symposia is presented here in a brief format for decision-makers. The four central themes running through each seminar are reflected in the organization of this document: agroecology for food and nutrition security (section 2), agroecology and natural resources in a changing climate (section 3), learning and social innovation (section 4), and public policies for agroecology (section 5), followed by the conclusion and next steps (section 6). The set of recommendations put forward by the meeting participants at the close of each meeting are presented in section 7.



# AGROECOLOGY AS A PATH TOWARDS FOOD AND NUTRITION SECURITY



#### 2.1 Context

Latest FAO estimates indicate that despite progress in addressing hunger and malnutrition, hundreds of millions of people the world over, especially in Southern Asia and sub-Saharan Africa, still lack access to sufficient food that allows them to meet their dietary needs. At the same time, global levels of obesity have more than doubled since 1980; in 2014, more than 1.9 billion adults were overweight, of which over 600 million were obese.

Until recently, food security paradigms that aimed to eradicate hunger focused mainly on increasing calorie intake. However, technical, single-crop approaches often do not address the underlying causes of hunger and malnutrition. They could worsen (hidden) malnutrition, as they hinder access to more diverse foods. In fact, biodiversity has an important role to play in achieving healthy nutrition for all. Global diets have not only become more homogenous, but also largely composed of processed foods. This, in turn, has undermined local, often better adapted and more nutritious food crops such as other grains, root and tuber crops, as well as pulses and fruits and vegetables. This trend is impacting people's health in rapidly developing countries at an unprecedented rate.



One key message emerging from FAO's International Symposium on Agroecology in September 2014 was that 'food security, nutrition and sustainable agriculture are common goals under Rio+20 and, in this regard, agroecology has a great deal to contribute'. At the 2014 Second International Conference on Nutrition (ICN2), civil society emphasized the point that 'nutrition can only be addressed in the context of vibrant and flourishing local food systems that are deeply ecologically rooted, environmentally sound and culturally and socially appropriate'. The Sustainable Development Goals, endorsed by the United Nations in 2015, explicitly mention the need to transform our current input-heavy food systems in order to make them more sustainable and contribute to solving the multiple crises of today: hunger and malnutrition, poverty, climate change, environmental degradation, loss of biodiversity, water, gender inequity and health.

#### 2.2 Latin America and the Caribbean

In the Latin America and Caribbean region the prevalence of chronic malnutrition is still over 20 percent, while there is also sustained growth in excess weight and obesity. Nonetheless, the region is at the forefront of the global fight against hunger. In the past 20 years, this region has championed most of the global progress in reducing the proportion and total number of people facing food insecurity. Public policies implemented by governments in the region, coupled with economic growth, caused hunger to fall from 14.7 percent in 1990-1993 to 7.9 percent in 2010-2013. Child malnutrition has also been halved in the same period, while the total number of undernourished people decreased from 59 million in 1990 to 47 million in 2013.

In the Latin America and Caribbean region agroecology has been practiced for decades by diverse groups that include social movements of smallholder family farmers, artisanal fisher folk, herders, and gatherers, traditional communities and indigenous peoples. In the region, agroecology has strong scientific support and is increasingly receiving backing from governments through new public policies and in multilateral forums that result in opportunities for regional integration. Recently, agroecology was included in the agenda for regional integration, within Mercosur and the Community of Latin American and Caribbean States (CELAC).

Building on these processes, the June 2015 agroecology seminar in Latin America and the Caribbean featured strong theoretical, practical and policy links between agroecology and food and nutrition security. Participants to the session also agreed that agroecology can help both rural and urban communities to achieve a better quality of life and fulfil the basic human right to food. The need to increase not only quantity but also quality of food was highlighted, preferably produced locally and in keeping with local traditions and cultures. It was recognized that smallholders and family farmers could guarantee food with these characteristics.

#### 2.3 Africa

Two of the most fundamental challenges to human welfare in Africa are food and nutrition security. In 2004, it was estimated that annually, 30 to 40 million Africans were affected by hunger crises, and that another 160 million people on the continent were undernourished. Even when people may not necessarily be facing an acute crisis in access to calories, their access to



nutritious foods is not secure. The shocks to which the continent is frequently subjected (e.g. natural catastrophes, economic downturns, conflicts) undermine people's food and nutrition security. Addressing the persistent problems of food and nutrition insecurity require new approaches and tools that are specific to the African context.

Agroecology is seen as a way to use biodiversity as a fundamental contributor to diverse, nutritious diets and sustainable systems, through increasing complexity and amplifying the services provided by living organisms. Speakers noted that Agroecology is not a way to revert to the past and avoid new technologies and innovation, but rather a way to connect traditional and scientific knowledge to produce food respecting the environment. Solutions for the transition exist and they start by recognizing that women, with their traditional knowledge, manage both nature and the fertility of nature to produce for people.

Current obstacles to an effective transition include the current system of subsidies that prevent farmers in developing countries from receiving fair prices for their products. In response to this situation, the need for systems of integration for agroecology in the New Partnership for Africa's Development (NEPAD) was recognized. Also, the call was made for better integration of researchers, working in teams across laboratories, to promote agroecology within national systems. The critical role of researchers working with farmers, and listening to farmers, joining together social, technical and methodological capital to find agroecological 'baskets of options' was reinforced.

Participants agreed that while agroecology has been practiced for decades on the continent, it still lacks sufficient support from governments and policy-makers to make better contributions to food security and nutrition. Many participants called for a new narrative based on food sovereignty. To develop this, it would be important to clarify the distinction between food security and food sovereignty; some participants stated that food sovereignty was not about filling empty stomachs, but about being able to choose what to produce and what to eat. In this sense, nutrition security and food sovereignty should not be disassociated: the right to produce and have access to nutritious, culturally appropriate food should be a guarantee for everybody, and most notably for food producers themselves.

#### 2.4 Asia and the Pacific

Until recently, the spectacular growth of some economies in the Asia-Pacific region over the past four decades was associated with a significant reduction of hunger and poverty. However, the problem of food and nutrition security, masked by the rise in farm outputs and lowered food prices, was far from resolved. The already vulnerable situation of millions has worsened significantly as a result of the food crisis of 2007–2008. Moreover, the Green Revolution has had a rather limited success, only increasing yields in some favourable areas while in other regions leading to depleted soils and high debts. Outward migration, especially of the young generation, has led to the 'greying' and feminization of the sector; the coping mechanisms of vulnerable households are few, given their limited assets and the fact that a deep recession occurred so soon after the food crisis.

Various proposals emerged during the first session of the Multi-stakeholder Consultation in Asia and the Pacific, including the need to transcend approaches that focus on production alone, and also take into consideration other aspects of food and farming. Suggestions were made for



the creation of policies that discourage agricultural practices that result in negative externalities (e.g. the use of pesticides) while favouring practices with positive impact for food and nutrition security. Policies that promote agroecological farming can contribute in major ways to food and nutrition security; such approaches may include agroecological farmer schools, 'green' farmers markets, and farmer breeding and seed saving programmes. The value of decentralizing the development of food security policies was stressed in order to better address local realities and to increase engagement of policy makers with farmers. Additionally, it was emphasized that social movements must participate in the development of policies for food and nutrition security as their engagement key to achieving policies that allow farmers to engage in an agroecological transition.

Participants to the consultation stressed that governments need to acknowledge that problems of malnutrition persist; nutritional considerations need to be seriously integrated into agriculture, livestock, aquaculture and related programmes.

Lastly, knowledge emerged as a central element in achieving food and nutrition security for the Asia-Pacific region. Participants to the Multi-stakeholder Meeting stressed the need to build alliances to bring together a diversity of knowledge on food and nutrition security. Education must also include the ways in which an agroecological approach can contribute to food and nutrition security. It was also agreed that traditional (agroecological) knowledge on nutrition and food could be recognized and shared better through many levels of the education process. In this respect, women have a major role in enhancing food and nutrition security and this could be made more visible.

#### 2.5 Common elements

In the discussions that ensued in all regional meetings, participants agreed on the potential of agroecology as a key strategy to improve nutrition and food security by promoting diverse, healthy food. Agroecology has an inherent focus on diversity in food and farming systems, and consequently in diets. Agricultural biodiversity in farmers' fields and crops was emphasized as a key factor for nutritional diversity.

It was also agreed that in order to enable agroecology, governments should ensure the access of producers (especially women, youth, family farmers and indigenous peoples) to natural and genetic resources, notably land, water and biodiversity. This can be achieved by developing equitable and accessible procedures for the acquisition, registration and securing of land tenure. Additionally, governments should promote the development of seed systems that address availability, access and ownership issues, including community seed systems, indigenous knowledge and extension services.

Emphasis should be placed on promoting better knowledge sharing and improving education around the contribution of agroecology to diverse diets and food and nutrition security. The integration of agroecology into the education for youth and adults was especially recommended, as well as farmer-to-farmer trainings. The importance of traditional and indigenous knowledge on food and nutrition cannot be overemphasized.

Moreover, during the three regional meetings, it was stressed that special focus should be placed on the gender dimensions of food and nutrition security.



## AGROECOLOGY AND NATURAL RESOURCES IN A CHANGING CLIMATE: WATER, LAND, GENETIC RESOURCES AND TERRITORIES



#### 3.1 Context

In the International Symposium on Agroecology in Food Security and Nutrition, Agroecology was suggested as an approach that genuinely provides the principles and the practices to address climate change, including the use of cover crops, crop rotations, conservation tillage and incorporation of compost, along with social measures that empower communities to sustain such practices. Agroecology has been shown to increase soil water retention and soil nutrient levels, making land more resilient to the droughts and floods that will become increasingly common as the climate changes. Moreover, resilience of farming systems and farming communities is enhanced by high genetic biodiversity, a characteristic of agroecological systems. Agroecology is tested and proven: humanity has traditionally farmed following the ecological principles that agroecology promotes and they are embedded in many indigenous and traditional farming practices. Agroecological practices are therefore an effective strategy to respond to the combined crises of natural resource degradation, climate change and food security.

It is clear that a policy shift in favour of agroecology is needed. As noted in the Final Report for the International Symposium on Agroecology for Food Security and Nutrition, 'All the



weight of natural resource management should not be the farmers' responsibility, but rather be a shared responsibility between farmers, state and non-governmental organizations for the greater societal benefit'.

#### 3.2 Latin America and the Caribbean

Historically, Latin America has contributed little to global greenhouse gas emissions; however, the potential future impacts of climate and land-use changes in Latin America could be large and costly. One problem this region faces is the release of carbon into the atmosphere as a consequence of land use change, especially deforestation. Agriculture can play a role aggravating or ameliorating this situation. It will be up to national governments to take action and to decide whether or not to adopt more sustainable food production systems. The expansion of production in Latin America has generally been accompanied by an intensive use of inputs, water and soil degradation and a reduction in biodiversity and deforestation that undermines not only the quality and availability of natural resources but also the livelihoods of individuals. The Latin America and Caribbean region accounts for 14 percent of global land degradation.

While it is noticeable that industrial agriculture plays an important economic role in the region, speakers noted that it fails to address the region's larger social and environment needs. Agroecology based on family farming, on the other hand, has been shown to contribute to a better social system and improved food and nutrition security. Moreover, agroecology's reliance on organic inputs and its low emissions are beneficial to the environment. In the region there is ample evidence from the last twenty years of the resilience of agroecological systems after extreme climatic events. This resilience is closely linked to the high level of on-farm and varietal biodiversity, a typical feature of family farming systems.

During the seminar, participants also underscored the contribution of agroecology to preserving the environment, for its practices are based on natural cycles and the principle of replenishing the resource base. In this respect, it was agreed that public policies and political will can boost agroecology. It is important, however, that policymakers take informed decisions that are based on farmer knowledge and farmer-led data collection.

The importance of recognizing the multifunctional role that agroecology rooted in peasant and family farming plays in preserving land, water, biodiversity and providing other ecosystem functions was further highlighted. It was emphasized that the peasant agricultural model based on agroecology takes social and cultural relations into account. Policy frameworks are needed that support the development of peasant-led agroecology to ensure food sovereignty in the face of climate change.

#### 3.3 Africa

According to the Secretariat of the African Ministerial Conference on the Environment, no continent will be struck as severely by the impacts of climate change as Africa. Given its geographical position, the continent's vulnerability will be exacerbated by the volatile social situation in several of its regions, and the limited capacity of national governments to respond



to social crises. It is estimated that by 2020, between 75 and 250 million people in Africa will be exposed to increased water stress due to climate change. Africa's rampant food insecurity and the impacts of climate change are worsened by declining soil fertility problems caused by soil nutrient mining, erosion and the depletion of soil organic matter.

The Regional Meeting in Africa highlighted that putting in place operational mechanisms is paramount to addressing these challenges and strengthening the livelihoods of farmers, improving the management of natural resources and reducing the intensity of greenhouse gas effects. While local institutions and knowledge systems may be overstretched and insufficiently respected or supported to meet today's growing food and nutrition security needs in many African communities, it is evident that they must underpin interactions at the nexus of natural resources, local social safety nets and local food systems. During the African meeting, some suggestions were brought forward on how to achieve this. Forms of training that allow farmers to understand the ecological relationships and processes of their agro-ecosystem, such as Farmer Field Schools (FFS), were highlighted. Family farmers develop innovative adaptation strategies in order to address climate change, and this can be reinforced through co-creation of knowledge in which researchers work with farmers to optimize practices such as intercropping, agroforestry, crop rotation, and organic fertilization. During the seminar, emphasis was placed on the potential of agroecology to improve and save degraded soils and to promote and maintain biodiversity, increasing resilience in the face of climate change.

It was brought to the fore in strong terms that agroecology also has a social dimension, which makes it different from some other forms of 'sustainable agriculture': agroecology seeks to reduce inequality and strengthens social security networks.

#### 3.4 Asia and the Pacific

In the Asia-Pacific region, there is evidence of the increasing intensity and frequency of extreme climatic events. These events not only exacerbate the shocks posed by frequent natural hazards to which the region is subject (e.g. earthquakes, tsunamis, landslides), but their impacts bring additional threats to a considerable segment of the population that strives to achieve food and nutrition security. Climate change is in fact emerging as the pre-eminent development issue in the region. Weak governance and limited communication and transportation networks are the principal reasons that such disasters particularly affect the millions of people living in rural areas, many of whom are subsistence farmers occupying remote, marginal areas such as mountains, drylands and deserts.

Based on the consensus that conventional agriculture renders farmers more vulnerable, particularly in the context of a changing climate, participants in the regional meeting emphasized the need for a transition towards agroecology. It was argued that continuing on the path of modern agriculture will likely require double the amount of pesticides and an increase in the area of land under use. During the meeting it was suggested that the solution to this problem lies in integrating ecosystem services (provisioning, regulating, cultural and supporting services) into agriculture through agroecological techniques, thereby enhancing farm productivity in face of the declining availability of natural resources, climate change and market volatility. In this context,



the importance of a global policy framework that promotes the mainstreaming of agroecology for natural resources conservation was emphasized.

There was broad agreement that agroecology, characterized by the diversified use of resources, can offer the flexibility necessary for climate change adaptation. Throughout the meeting emphasis was placed on the need to place farmers' knowledge and experiences at the centre of climate change adaptation strategies. Therefore, local community involvement and better collaboration among sectors were highlighted as crucial in addressing climate change. Examples were given of farmer-led natural resource conservation, which were responses to the damages created by industrial-style monoculture plantations. In this context, calls were made for governmental involvement in conflict resolution over natural resources, and stronger and more consistent enforcement of local land rights.

In their final recommendations, participants to the multi-stakeholder consultation called for greater support for traditional management practices, for local varieties of food crops and for neglected and underutilized as well as drought-resistant crops. Directing more investment to research on the link between agroecology and climate change, with an emphasis on on-farm selection of varieties and species, was also recommended.

#### 3.5 Common elements

A salient point of agreement during the three regional meetings was the potential of small-scale agroecological agriculture as a promising approach to climate change adaptation. There was consensus that agroecological farming systems can play an important role in mitigating the effects of climate change through carbon storage solutions through enhanced biodiversity, increased organic content in the soils and reintroduction of trees to the landscape, as demonstrated in cases presented in each region. In this respect, participants in the regional meetings urged for policy frameworks that serve two main purposes. The first is to make resources available for the development of agroecology to ensure food sovereignty in the face of climate change. The second is to secure the rights of farmers to autonomously manage their territories as well as natural and genetic resources such as soil, water and seeds.

Moreover, local community involvement and better collaboration among sectors were highlighted as crucial in addressing climate change. Highlighting the potential of FFS, participants called for greater support for traditional management practices, local varieties of food crops and neglected and underutilized as well as drought-resistant crops in the final recommendations of the three regional meetings. Directing more investment to research on the link between agroecology and climate change, particularly on on-farm selection of varieties and species, was also underscored. Furthermore, the need for supporting farmer managed plant breeding systems was highlighted, noting that plant breeders often work with dead soils, not the living soils that are actively managed by farmers with organic inputs.

Lastly, participants in the three meetings emphasized that agroecology not only helps to cool the climate, but also brings in a social dimension, expressed through stronger social security networks that are essential to resilience.



## LEARNING PROCESSES IN AGROECOLOGY: SOCIAL INNOVATION, KNOWLEDGE BUILDING AND TECHNOLOGY



#### 4.1 Context

Addressing humanity's future challenges will require social innovation and collaboration between different actors on an equal footing, combining different types of knowledge, experience and technology, including traditional knowledge. During the 2014 International Symposium on Agroecology, it was concluded that in achieving a transition, local contexts should be awarded greater importance and therefore, we must learn from local agroecological knowledge. Many conventional top-down extension efforts have left farmers demobilized and disempowered. All too often, peasant knowledge has been ignored through the promotion of external advice, chemical inputs, seeds and machinery.

Agroecology requires a more radical shift in which farmers are seen as researchers in their own right. In agroecology farmers continuously build situation-specific knowledge that allows them to develop under unpredictable and changing circumstances. Agroecology is neither reductionist nor deterministic and is constantly developed from approaches that are creative and that recognize



and integrate the diversity of traditional agriculture. This kind of thinking manifests itself in, for example, the farmer-to-farmer methodology that originates from the bottom-up and is replicated horizontally. These and many other initiatives together have formed the basis for the agroecology movement.

Co-creation of knowledge happens when new knowledge emerges from sharing, learning and working with other people. Farmers' knowledge of seeds, land, water and other local resources are absolutely central in this process, and it can be supported and enriched with 'formal' scientific knowledge. Agroecology is strongly rooted in farmer practice and knowledge, especially that of women farmers. The International Symposium on Agroecology recognized that horizontal (farmerto-farmer) communication and exchange is a powerful mechanism. It also emphasized the need to have better linkages between academia, governance mechanisms and women's groups. The symposium explicitly acknowledged that local knowledge of biodiversity and women's knowledge is as important as that of men and emphasis should be placed on the knowledge generated and maintained by women.

#### 4.2 Latin America and the Caribbean

Over the past few decades, agroecology has played a key role in the strategies of the continent's people to overcome the crises caused by the industrial agricultural model. In Latin America, agroecology is most strongly recognized in its three dimensions: as a practice, as a movement, and as a science. Agroecology is foremost constructed in the field by family farmers and indigenous communities, notably through the *campesino-a-campesino* (farmer-to-farmer) methodology.

A salient call during the Regional Meeting in Latin America and the Caribbean was the need to foster territorial dynamics of social innovation and technology in order to strengthen agroecology. It was recognized that self-organization and collective action enables the growth of agroecology, especially by promoting the articulation between organizations and territories. It was agreed that interdisciplinarity lies at the core of agroecology and, as such, should also be key in education, research and learning processes. More thought must be put into the public policies necessary for the generation and transmission of such knowledge.

The importance of supporting the recovery and continuity of the ancient agroecological knowledge of indigenous peoples was highlighted. For example, specific age-old knowledge of farmers about how to maintain, use and work with the high agrobiodiversity in their fields. In order for traditional knowledge to gain widespread recognition, participants also highlighted that public research institutes should recognize traditional knowledge more and promote knowledge dialogues in their research programmes. In agroecology the main academic approach is participatory research, giving ample room for various types of knowledge to come together.

When it comes to 'upscaling' agroecology, knowledge building is a key element. Participants emphasized the promotion of horizontal knowledge exchange and dialogue and the revalorization of traditional knowledge and practices as key factors for the upscaling of agroecology.



#### 4.3 Africa

One of the principal obstacles to the spread of agroecology in Africa (as is the case elsewhere) is the tendency to promote narrow, indivisible packages of techniques that farmers find hard to adopt in full. This approach ignores farmers' own agency in the design and selection of effective agroecological solutions and overlooks the fact that innovation processes are complex and non-linear. Contrary to the approach of mainstream agricultural science, agroecology is based in local needs and conditions and its further development and spread is best done through fostering collaborations with and by local farmers, both male and female.

The need for upscaling agroecology was emphasized in the African Regional Meeting, with the premise that different situations call for different practices. In this context of amplifying strategies, the importance of farmer knowledge and the need for family farmers to participate more in research and policy making, the role of biodiversity-related knowledge for nutrition, and the inherent and unbreakable links between culture, society and agriculture were highlighted.

It was noted that farmer innovations have greatly improved the livelihoods of farming communities, yet innovation capacity of local communities remains insufficiently valued. The participatory development of innovations is a promising avenue, especially when it starts from an understanding of the local context, and is based on joint experimentation to find lasting solutions. Exchange, learning and empowerment of farmers play a key role.

It was emphasized that a key task for governments is to promote formal and informal training of farmers, as well as ancestral agroecological practices in combination with new techniques. Research projects should be implemented in a way that they generate a relationship between rural communities and academia, one that fosters the continued increase of agroecological practices and production.

Arguing for policies that value local capacities in agricultural innovations, the need was expressed for a supportive institutional framework for the use of biological alternatives on farms that could help to effectively decrease the use of chemicals in agriculture. Social innovation in agroecology is especially important to attract more youth to farming, even more so in Africa where young people represent 60 percent of the population.

#### 4.4 Asia and the Pacific

In the Asia-Pacific region, FFS have been an effective means to build knowledge at the local level. However, during the 2014 International Symposium on Agroecology, a call was made for FFS to be reoriented towards the broader concept of agroecology. Moreover, the present agricultural education system in the region, which is highly specialized, does not recognise the cross-sectoral nature of agroecology and the different types of wisdom that are so fundamental to agroecology.

At the multi-stakeholder meeting it was emphasized that agroecology is highly location specific and any agroecological strategy must be based on the local know-how and experimentation of family farmers, further supported by science. There was a strong emphasis on the need to recognize, support and document producers' knowledge and consider the needs of communities when designing educational interventions on agroecology. This is particularly relevant for women



and youth. Participants pointed to agroecology as a way to bring women to centre stage, as 'without women there is no agroecology'. Knowledge building needs to be decentralized and interdisciplinary, participants stated, including social technologies.

The role of research was a major topic of discussion and participants agreed that research investments need to be made in ecosystem functions rather than in payments for ecosystem services. For example, funding should be prioritized for research on soil micro-organisms, soil health and the development of agroecological approaches to disaster relief. The relevance of field research on indigenous seeds was stressed for supporting the agroecological transition. As academics sometimes seem to have little trust from farmers and civil society, it was pointed out that there is a need for reflection and self-criticism by the academic community. Current conventional agricultural research should be replaced by community-oriented research that is inclusive and has the agenda of farmers at its centre. Participants agreed that, in particular, biodiversity-related research needs to be more responsible and community-oriented. The meeting emphasized the need to recognize farmers as co-researchers and innovators and recommended building a regional network of agroecology researchers.

Participants recognized that cross-sectoral, agroecological knowledge is limited and that capacities need to be built to fill the void. For this purpose, an enabling policy framework should be developed.

#### 4.5 Common elements

Agroecology underlines the importance of context-specific and continuously adapted knowledge to find solutions for complex and dynamic ecological and human systems. As noted throughout all three regional symposia, farmers' knowledge and understanding of the management of local natural resources form the foundations of agroecology. By combining farmers' knowledge with scientific understanding, complex adaptive farming systems can be designed that effectively address food security and nutrition. It is important to foster the co-creation of knowledge between farming communities and scientists, with the many mediating organizations in between.

Participants called for the need to question and redefine participatory learning processes, reflecting on the role of scientists in their interactions with farmers, and transform these into farmer knowledge-driven processes. Throughout the symposia, it was stressed that education and public research has increasingly acquired a business-like character, where funding from the agricultural corporate sector strongly influences curricula and research agendas. In face of this situation, agroecology strives to democratize the way knowledge is produced and the way benefits are shared.

Moreover, calls were made to collect and better disseminate data from existing experiences with agroecology to enable evidence-based decision making. Farmer-led, bottom-up, local innovation systems and practices must be promoted to enhance the fundamental role of agroecology and to strengthen the dissemination of innovations. This is especially important when it comes to agrobiodiversity conservation. Participants recommended that resources be invested in applied agroecological research with a focus on on-farm selection of varieties and breeds, as well as on social and human sciences.



### **5** PUBLIC POLICIES TO PROMOTE AGROECOLOGY: LEGAL AND INSTITUTIONAL FRAMEWORKS AND MARKETS



#### 5.1 Context

For almost a century, agricultural policy has been focused on promoting industrial agricultural practices. Even today, donors, development agencies and multilateral initiatives continue to push for an agricultural model that aims to increase production through chemical fertilizers, hybrid seed, irrigation, pesticides, herbicides, mechanisation and cash cropping of monoculture for export. This model does not only make food producers highly dependent on expensive external inputs, but also has devastating effects on soils and future productivity, forests, waters and public health.

For a long time already, discussions between policymakers, NGOs and academia at national and international levels have revolved around the question of how agroecology can have impact at a greater scale. This is an important and complex challenge. As agroecology is equally a practice, a science and a movement, strategies to amplify agroecology should be based on the role and knowledge of farmer communities, supported by science, and embedded in initiatives that



promote changes in discourse, action and policy. It must therefore imply both what can be termed 'scaling out' and 'scaling up' agroecology. Strengthening farmers' access to technical and financial resources as well as fostering farmer-to-farmer knowledge exchange can achieve scaling out.

The Final Report of the International Symposium on Agroecology for Food Security and Nutrition pointed out that crucial elements in 'scaling' agroecology are to show results on the ground and improve advocacy and awareness raising. However, which public policies could best support farmers to participate in the agroecological transition and buffer risks is a question. This question was addressed during the regional meetings organized by FAO in 2015. Moreover, from the recognition that one size does not fit all, these regional meetings aimed at identifying sets of possible policies that are conducive to creating an enabling environment for innovations in agroecology to occur and prosper at the local, national and international level.

#### 5.2. Latin America and the Caribbean

No region in the world has experienced an expansion of agroecology as large as that in Latin America, this process has been intimately linked to the emergence of new political scenarios characterized by progressive governments and movements of peasants and indigenous people. However, more effective public policies to strengthen agroecology remain to be developed in most countries.

During the regional seminar, discussions on the mainstreaming of public policies for agroecology evolved around democratizing food systems and changing the predominant production paradigm. An important observation was that comprehensive public policies could increase the competitiveness of agroecological producers in both local and national markets.

Emphasis was placed on policies to support the recovery of ancestral practices and expanding their area of application, not only in the rural sector but also in urban and peri-urban areas. Special public policies are necessary to promote the protection of local, traditional and native seeds, as well as encouraging their exchange and protection by rural and indigenous communities. In some countries, constitutional changes implemented to recognize people's right to permanent access to safe and nutritious foods, preferably locally produced according to traditional production principles.

Suggestions were made for differentiated financing systems for agroecological producers. It was emphasized that while a legal framework is fundamental to the advance of agroecology, economic resources that respond to the different socio-political realities of the territories must accompany laws.

Participants in the regional seminar highlighted the importance of spaces for public consultation, as a framework that could allow producers and consumers to know first-hand the needs of the agroecological sector and how to help its growth. Participants noted that public policies should not be designed by governments alone; they should be designed, implemented and monitored in conjunction with civil society. While necessary in policy development for agroecology, building effective relationships between governments and social movements is not without challenges.



#### 5.3 Africa

Agroecological practices are an ancient tradition that is constantly evolving in Africa. Smallholders and family farmers both make up the vast majority of the farming community, and land managers, and are the key to food security. Notwithstanding this, the necessary policy support to preserve this important sector is lagging behind.

At the regional meeting, participants analysed which actors and interests either support or undermine the transition to agroecology.

A paradigm change was called for that places small-scale producers at the centre of participatory policy development. The focus of future policies needs to be on growing crops that are consumed locally as opposed to commodities for mass markets, and on giving farmers, especially women, control over their natural resources. Innovation, learning and institutionalizing the sharing of experiences between different regions of the world were seen as key steps. Calls were made for the promotion of best practices on public policies for agroecology in all regions as well as South-South cooperation.

Various initiatives in Africa can guide the way. The Ecological Organic Agriculture Initiative of the African Union is an endeavour that equally emphasizes scientific and traditional knowledge for agricultural development, and aims to integrate organic agriculture into the national agricultural production systems and policies. The Government of Senegal uses a model to understand the type of agricultural practices that, in combination, can effectively contribute to positive change. This model compares different scenarios for sustainable agriculture, food security and rural poverty. It demonstrates how low external-input agriculture at small scale can provide a long-term increase in production. In contrast, the high external-input, large-scale agricultural system provides an immediate increase in production, but is less efficient in the longer run. This difference can be attributed to variability in resilience of the two agricultural systems and their impacts on employment, poverty, and food and nutrition security.

To achieve sustainability, the implementation of policies was recommended that enhance the capacities of farmers by improving governance and land tenure. The importance of governments implementing the Voluntary Guidelines on the Responsible Governance of Tenure was highlighted, along with equity policies regarding access to credit, insurance, and market information.

#### 5.4 Asia and the Pacific

While agroecological approaches are increasingly gaining support among scientists, consumers and farmers around the world, official efforts in support of 'sustainable' agriculture in the Asia-Pacific region for the most part still promote solutions that rely on imported chemical inputs and fail to advance food security and nutrition or environmental sustainability. Therefore, the main concern during the public policy session of the regional multi-stakeholder consultation was the need to create economic and social policies that will enable farmers to make the agroecological transition. This requires that policy development takes a different approach,



reorienting from focusing on farms to landscapes and from singular disciplines and sectors to a transdisciplinary approach.

Difficulties in creating and accessing markets for agroecological products were emphasized as major obstacles. Middlemen, market forces and inadequate infrastructure often compel farmers to accept very low prices. However, access to healthy food was found to be a priority over accessing markets. Ideally, the two are achieved together. Working collectively in an agroecological transition, farmer-owned enterprises made up of farmers, fishers and indigenous people have been able to achieve higher prices, lower their costs, provide healthy food, restore the soil, increase productivity through integrated farming, diversify products and add value.

Various specific policy demands were presented to support the transition to agroecology, such as the development of a national policy for agroecological farmer enterprises, public procurement from agroecological farmers, appropriate credit windows, a system of tax incentives and regional programmes for knowledge sharing.

#### 5.5 Common elements

From all three symposia, a consensus emerged that supportive public policies will be a major catalyst for the agroecological transition. Specific laws, regulations and measures are needed to create an enabling environment that supports farmers and consumers to make the agroecological transition. These policies not only touch on production and consumption, but also on issues such as health, education and the environment. They must therefore be developed in an interdisciplinary and participatory way, respecting the needs of both farmers and governments.

To further strengthen agroecology, control of seeds, biodiversity, land and territories, waters and knowledge need to be put in the hands of the food producers. Without access to these resources making the transition to agroecology is impossible. Women farmers and women farmer groups should be supported explicitly through agricultural projects, agricultural extension, research and rural credit programmes, and by supporting women farmers' access to natural and productive resources. Better support must also be given to the youth whose creativity, energy and innovation are the basis of many agroecological approaches today and in the future.

Most effective will be policies that have a local character and promote the further development of proven successes such as community seed banks, FFS, agroecology schools, demonstration farms and farmer-to-farmer exchanges. In this respect, the potential of South-South cooperation to streamlining agroecological policies was stressed in all three symposia. According to the participants, South-South cooperation offers potentially useful perspectives on how to advance agroecology, as this form of cooperation has the possibility to move away from traditional donorrecipient roles characteristic of North-South cooperation, and instead focus on the exchange of mutually relevant experiences.

In summary, the regional symposia made clear that fundamental change in policy is needed for agroecology to reach its full potential. Policy and research must be developed in collaboration with food producers to understand its challenges and opportunities. It is essential to strengthen farmer-to-farmer learning through appropriate policies and regulations, in order to amplify the range of innovative practices already being used.



# **6 CONCLUSION AND NEXT STEPS**



Throughout the three regional symposia, agroecology was acknowledged for its potential to effectively address the world's persisting problems of hunger and malnutrition in the context of climate change. In spite of the different regional contexts and political environments, outcomes and recommendations showed many similarities. Considering local contexts is, after all, the overriding principle that distinguishes agroecology from conventional, one-size-fits-all approaches to food production. Moreover, the similarity of outcomes and recommendations are proof that the origin of the problems and challenges that the regions face are of a global nature.

#### Mainstream agroecology in policy

It was generally recognized in the three regional symposia that agroecological initiatives and practices can make a substantial contribution to solving a number of challenges in the world today: the reduction of rural poverty, the eradication of hunger and malnutrition, the promotion of sustainable agricultural development, improving soil fertility and improving resilience to climate change. All of these challenges are central to achieving the Sustainable Development Goals. In addition, agroecology also has a social dimension, which makes it different from some



other forms of 'sustainable agriculture': agroecology seeks to reduce inequality and strengthens social security networks. Agroecology provides prospective employment for rural youth and can contribute to stop the enduring rural exodus.

An overarching recommendation that emerges from the three regional symposia is the mainstreaming of agroecology into public policies, programmes, legal frameworks and regulations in a cross-sectoral and coherent manner. Specifically, agroecology should become an integral part of ongoing regional initiatives such as the Community of Latin American and Caribbean States (CELAC) and the Comprehensive Africa Agriculture Development Programme (CAADP). Better integration of agroecology in public policies would serve to recognize and promote the role of family farmers and smallholders who work with agroecology, in particular rural women and youth. Recognizing the historic role of women in agroecology by supporting their agroecological initiatives and strengthening their abilities to overcome the obstacles that they face, such as a heavy workload and criminalization, is fundamental.

In addition, in all regions it was emphasized that policies for agroecology should be developed and implemented inclusively, with the active participation of social movements, and in collaboration with scientists, educators and others.

#### Promote local innovation and co-creation of knowledge

Agroecology is largely based on context-specific and locally-adapted knowledge of complex and dynamic ecological and human systems. Therefore, as noted throughout all three regional symposia, farmers' knowledge and understanding of biodiversity management must be the foundation of any agroecological development.

By combining science and farmers' knowledge, complex adaptive farming systems can be designed. Thus, in supporting agroecology, the regional symposia emphasized the need to foster the co-creation of knowledge between farmers and between farmers and scientists, sometimes with other organizations or individuals such as consumers or policy makers.

As agroecology is by nature locally rooted, the need to foster territorial dynamics of social innovation and technology was emphasized. The Africa region specifically proposed to launch pilot projects at territorial level such as the creation of agroecological territories.

In order to enhance awareness and knowledge, recommendations were made in all regions to integrate agroecology into the curricula of both formal and non-formal primary and higher education institutions. Moreover, it was emphasized that institution at all levels, communities and sectors should promote farmer-led, bottom-up, local innovation systems and practices.

#### Ensure access to land, water and biodiversity

At the three symposia, participants underscored the multifunctional role that agroecology rooted in peasant and family farming plays in preserving land, water, biodiversity and providing other ecosystem functions. As its practices are based on natural cycles, healthy soils and biodiversity, it offers great potential to improve and save degraded soils and to promote and maintain biodiversity, increasing resilience in the face of climate change.



The recommendation was made in all regions to implement the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests. In addition, recommendations were made for farmers to autonomously manage natural and genetic resources such as soil, water and seeds, recognizing the role of farming communities as guardians of biodiversity.

### Recognize the potential of agroecology for climate resilience and mitigation

A salient point of agreement during the three regional symposia was that agroecological farming systems can play an important role in mitigating the effects of climate change through carbon storage solutions based on enhanced biodiversity and increased organic content in the soils, as demonstrated in cases presented in each region. The three regional symposia called for greater support for traditional management practices, local varieties of food crops and neglected and underutilized as well as drought-resistant crops. Directing more investment to research on the link between agroecology and climate change, particularly on on-farm selection of varieties and species, was also underscored.

#### **Ensure access to markets**

Participants in the regional symposia agreed that one of the main obstacles to the agroecological transition for farmers is market access. Middlemen, market forces and inadequate infrastructure often compel farmers to accept very low prices which make the investment in agroecology too expensive. At the same time, specific markets for agroecological produce are generally not available. It is crucial to create better access to markets. This can be done through providing information on how to market agroecological products, by establishing direct producer-consumer relations in nested markets that eliminate the middleman, and through public procurement. This can make agroecology more attractive, especially to youth. Recommendations that emerged at the regional symposia included specific value chain and market developments for agroecology, public procurement policies oriented to agroecological products and the promotion of the nutritional value of agroecologically produced food.



# LIST OF ORGANIZATIONS AND COUNTRIES THAT ATTENDED THE SYMPOSIA

Country	Organization	Country	Organization
Afghanistan	Ministry of Agriculture, Irrigation &	Bolivia	Ministerio de agricultura
	Livestock	Bolivia	Ministério do meio ambiente
Argentina	CETAAR/ RAPAL	Brazil	ACTIONAID
Argentina	ECMIA	Brazil	ANC
Argentina	Granja Agroecologia naturaleza Viva	Brazil	ANVISA
Argentina	greenpeace	Brazil	AS-PTA
Argentina	IITC	Brazil	САА
Argentina	La Aurora	Brazil	СОЛАВ
Argentina	Ministério de Agricultura	Brazil	CONSEA
Argentina	MNCI/ CLOC-VC	Brazil	CONTAG
Argentina	FPC/MAELA	Brazil	DPMRQ
Australia	AFSA	Brazil	Embaixada da França
Australia	Flinders University Australia	Brazil	EMBRAPA
Australia	University of Queensland		FASE MT
Bangladesh	Asia Food Securiy Network (AFSN)	Brazil	
Bangladesh	Ministry of Agriculture, Irrigation & Livestock	Brazil	Fetraf
_		Brazil	FNDE
Belgium	CIRAD	Brazil	Fundação Banco do Brasil
Belgium	CropLife International	Brazil	GIZ
Belgium	Oxfam-Solidarity	Brazil	Grupo de Trabalho de Mulheres da ANA
Benin	Directeur de Cabinet adjoint du	Brazil	IFOAM
	ministere de l'agriculture, de lélevage et de la peche de la Republique du	Brazil	IPEA
	Benin	Brazil	Marcha Mundial das Mulheres
Benin	Government Benin	Brazil	MCTI
Benin	MIJARC	Brazil	MEC
Bhutan	Department of Agriculture	Brazil	MF



Country	Organization
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Brazil	MMA
Brazil	Movimento de Mulheres Camponesas
Brazil	Movimento dos Trabalhadores Rurais Sem Terra
Brazil	MPA
Brazil	MRE
Brazil	MS
Brazil	Rede Ecovida
Brazil	SG / PR
Brazil	UFV
Brazil	Via Campesina/MPA
Burkina-Faso	Agronome
Burkina-Faso	Association Munyu des femmes
Burkina-Faso	Collaborative Crop Research Program, The McKnight Foundation
Burkina-Faso	Féderation Nationale des Organisations Paysannes (FENOP)
Burkina-Faso	New Filed Foundation
Cambodia	Aide au Developpement Gembloux (ADG)
Cambodia	Center for Organic Development (COD)
Cambodia	CIRAD
Cambodia	Department of Agricultural Land Resource Management
Cambodia	FNN
Cambodia	General Directorate of Agriculture, MAFF
Cambodia	GRET
Cameroon	AFSA/IPACC
Cameroon	FIMARC
Cameroon	PROPAC
Cameroon	Training Officer Director
Canada	USC
Canada	USC Canada
Central Africa	Ministere des Eaux et Forests Chasse et Peche
Chile	ANAMURI
Chile	CET Chiloé

Country	Organization
Chile	COPROFAM
China	Bioversity International
China	China Agricultural University
China	Chinese Academy of Agriculture Sciences (CAAS)
China	Greenpeace East Asia
China	URGENCI
Colombia	ASOPECAM/MAELA
Colombia	Fensuagro/ cloc
Colombia	OXFAM
Colombia	SOCLA
Colombia	Universidad Nacional de Colombia
Congo	Ministère de la pêche et de l'aquaculture
Congo	Ministère de l'Agriculture et de l'Elevage
Congo	MPA/DGPE
Costa Rica	COPROALDE/MAELA
Costa Rica	DIALOGO RURAL
Costa Rica	Ministerio de agricultura
Cote d'Ivoire	COPAGEN
Cote d'Ivoire	Directions des Productions D'elevage
Cote d'Ivoire	Ministère des Eaux et Forêts
Cuba	ANAP
Cuba	ENET
Cuba	inifat
Dominica	Ministerio de agricultura
Dominica Republic	Ministerio de Medio Ambiente y Recursos
Dominica Republic	RETOÑO/CLOC-VC
Ecuador	CEA/MAELA
Ecuador	Ministerio de agricultura
Ecuador	RALTT
El Salvador	Centro Nacional de Tecnología Agropecuaria y Forestal
Equatorial Guinea	Inspector General de Servicios, en tanto que Ingeniero en Agronomia Tropical



Country	Organization
Equatorial Guinea	Ministre de la Pêche et de l'Environnement
Eritrea	Ministry of Agriculture
Ethiopia	Alliance for Food sovereignty in Africa
Ethiopia	Alliance for Food Sovereignty in Africa (AFSA)
Ethiopia	IFSN national network
Ethiopia	Institute for Sustainable Development
Ethiopia	MELCA-Ethiopia
Ethiopia	Panos Ethiopia
Ethiopia	Senior Policy Officer of the African Union Commission
EUA	Food First
France	Association Jardins d'Afrique - Ferme ecole agro-écologique de Kaydara
France	CIRAD
France	CNOP/convergence
France	French Embassy - Economic Service
France	GRET
France	GRET
France	Hub Rural
France	Institut de Recherche pour le Developpement
France	IRD
France	Photophonie
Gabon	Assistant Technique au Projet Appui à la Gestion Durable des Ressources Forestières au Gabon
Gambia	Ministry of Environment, Climate Change, Water, Forestry and Wildlife
Germany	Heinrich Boell Foundation
Ghana	Groundswell International
Great-Brittain	FoEI / IPC support
Great-Brittain	Tanzania Organic Agriculture Movement
Guatemala	Amigos de la Tierra
Guatemala	CEPRODI/CITI
Guatemala	REDSAG/MAELA
Guinea Bissau	Guinea Bissau Ministry of Agriculture (SWISSAID)

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Kenya       Participatory Ecological Land Use Management - PELUM Kenya         Kenya       Pastoralist Women for Health and Education         Kenya       SACDEP Kenya	Kenya	
Management - PELUM Kenya       Kenya       Pastoralist Women for Health and Education       Kenya       SACDEP Kenya	Kenya	KOAN
Education Kenya SACDEP Kenya	Kenya	
	Kenya	
Kenya World March of Women	Kenya	SACDEP Kenya
	Kenya	World March of Women



Country	Organization
Lao PDR	Agence Francaise de Developpemnet (AFD)
Lao PDR	CIRAD
Lao PDR	DALaM/MAF
Lao PDR	GRET
Lao PDR	Helvethas
Lao PDR	Ministry of Agriculture and Forestry
Lao PDR	SEDA
Liberia	Forestry Development Authority
Madagascar	Chargée d'Etudes
Madagascar	MEEMF
Malawi	Malawi Farmer-to-Farmer Agroecology project
Malaysia	National University of Malaysia
Malaysia	PAN, Asia Pacific
Malaysia	PANAP
Malaysia	Third World Network
Mali	CARE International
Mali	CAWR Center for Agroecology Water and Resilience - BEDE Biodiversité Echanges et Diffusion d'Expériences
Mali	CNOP Mali and ROPPA
Mali	COFERSA
Mali	Convergence CMAT-MALI
Mali	IRPAD/Afrique
Mali	Practical action
Mexico	UFIC/CITI
Mexico	Cento de Desarrollo Integral Campesino de la Mixteca
Mexico	SOCLA
Mongolia	Mongolian University of Life Sciences
Mongolia	NAMAC
Mozambique	Ministry of Land, Environment and Rural Development
Myanmar	Doh Taung Thu
Myanmar	GRET
Myanmar	Myanmar Organic Grower and Producer Association
Myanmar	SWISSAID

Country	Organization
Myanmar	SWISSAID Myanmar
Nepal	Ministry of Agricultural Development
Nicaragua	ATC/ CLOC VC
Nicaragua	Embaixada da Nicaragua
Nicaragua	INTA
Niger	SWISSAID
Nigeria	Environmental Rights Action/Friends of the Earth Nigeria
Nigeria	Forum for Agricultural Research in Africa
Nigeria	Heinrich Boell Foundation
Nigeria	Ministere de L'Agriculture
Norway	Caritas Norway
Pakistan	WWF Pakistan
Panama	MJA/CITI
Panama	Regional de Servicios Agropecuarios de Panamá
Papua New Guinea	Department of Agriculture and Livestock
Paraguay	COPROFAM
Paraguay	IFSN
Paraguay	Ministerio de agricultura
Peru	Oxfam
Peru	SOCLA
Philippines	AFA
Philippines	Dept of Agriculture
Philippines	Oxfam-GB East Asia
Philippines	PARAGOS
Republic of Korea	KWPA / LVC
Rwanda	MIJARC
Samoa	Ministry of Agriculture and Fisheries.
Senegal	Académie Nationale des Sciences et Techniques du Sénégal
Senegal	ActionAId International Senegal
Senegal	Agence Nationale de Conseil Agricole et Rural
Senegal	AGRECOL-NAT-BI
Senegal	AGRISUD





Country	Organization
Senegal	Agropasteur
Senegal	AJAC LUKAAL
Senegal	Animatrice
Senegal	Association Jardins d'Afrique - Ferme Ecole Agro-écologique de Kaydara
Senegal	Association pour le bien etre et Protection de l'environnement
Senegal	CEEDD
Senegal	Centre de formation professionnelle horticole
Senegal	CNCR
Senegal	Comité Ouest-Africain des Semences Paysannes
Senegal	Coordonnatrice
Senegal	DA/MAER
Senegal	DAGE/ Ministère de l'Agriculture et de l'Equipement Rural
Senegal	DAPSA/MAER
Senegal	DG ISRA
Senegal	DHOST
Senegal	Direction agriculture/ MAER
Senegal	Direction de la Protection des Végétaux
Senegal	Direction Horticulture
Senegal	DPV
Senegal	Ecole Nationale Superieure D'Agriculture
Senegal	ECOLINK
Senegal	ENDA
Senegal	ENDA Coorporation
Senegal	Enda Pronat
Senegal	ENSA/UT
Senegal	Fahamu Africa
Senegal	FAPD
Senegal	FENAB
Senegal	FONGS
Senegal	FOS/FL
Senegal	Government Senegal
Senegal	Green Senegal

Country	Organization
Senegal	IED Afrique
Senegal	INP/MAER
Senegal	Institut Sénégalais de Recherches Agricoles
Senegal	IPAR
Senegal	IRD
Senegal	Jardins d'Afrique
Senegal	MAER
Senegal	MEDD
Senegal	Ministère de l'Agriculture et de l'Equipement Rural
Senegal	Ministère de la Culture et de la Communication
Senegal	Ministere de l'Agriculture et de l'Equipement Rural, chargé de mission
Senegal	Ministère des Affaires Etrangères et des Sénégalais de l'Extérieur
Senegal	MPEM
Senegal	New Field Foundation
Senegal	ONG NDEM
Senegal	PAN-Africa
Senegal	RBM
Senegal	Sapeur Pompier
Senegal	Secrétaire Général du MAER
Senegal	UADB
Senegal	UGPM
Senegal	Université Cheikh Anta Diop
Senegal	World Vision International (West Africa regional office)
Singapore	CropLife Asia
Singapore	French Embassy in Singapore
Singapore	Yale -NUS College
South Africa	FSC / LVC
South Africa	Masifundise/WFFP
Spain	CERAI
Switzerland	Biovision
Tanzania	African Organic Agriculture Network (AfrONet)



Country	Organization
Tanzania	Participatory Ecological Land Use Management (PELUM) Tanzania
Tanzania	WAMIP
Tanzania	WFF
Tchad	SWISSAID
Thailand	AFD-French Development Agence
Thailand	Agricultural and Food Marketing Association for Asia and the Pacific- AFMA
Thailand	Agricultural Information Division, MOAC
Thailand	Asian Center of Innovation for Sustainable Agriculture Intensification (ACISAI)
Thailand	Asia-Pacific Association of Agricultural Research Institutions
Thailand	BioThai Foundation
Thailand	Biovdiversity
Thailand	Chulalongkorn University in the School of Agricultural Resources
Thailand	CLUMP Foundation
Thailand	Department of Agriculture
Thailand	Focus on the Global South (FGS)
Thailand	Greenpeace Southeast Asia
Thailand	Kasetsart University
Thailand	Khon Kaen University
Thailand	LVC Thailand
Thailand	Ministry of Agriculture and Cooperatives of Thailand
Thailand	Ramkhamhaeng University
Thailand	SAFT
Thailand	School for Wellbeing Studies and Research
Thailand	Suan Nguen Mee Ma social enterprise
Thailand	Sustainable Rice Platform, UNEP
Thailand	Thai Education Foundation / The Field Alliance
Thailand	The Biodiversity Finance Initiative
Thailand	Translator
Thailand	World Vegetable Center (AVRDC)
Timor-Leste	MOKA TL

Country	Organization
Тодо	Centre de Formation Agricole et de Production Ecologique du Togo (CFAPE-TOGO)
Тодо	Direction des Ressources Forestières/ Ministère de l'Environnement et des Ressources Forestières
Тодо	Friends of the Earth
Тодо	ITRA
Тодо	Ministère de l'agriculture de l'élevage et de l'hydraulique
Uganda	Alliance for Food Sovereignty in Africa
Uganda	Eastern and and Southern Africa Small Scale Farmers Forum (ESAFF)
Uganda	IUF
URUGUAY	Amigos de la Tierra
URUGUAY	COPROFAM
USA	Croplife International
USA	IATP
USA	ICRAF
USA	Independent
USA	SOCLA
USA	University of California, Berkeley
USA	Institute for Agriculture and Trade Policy
Viet Nam	MARD
Viet Nam	Oxfam America
Vietnam	Center for Agricultural Research and Ecological Studies (CARES), Vietnam National University of Agriculture
Vietnam	CIAT
Vietnam	Field Crop Research Institute (FCRI)
Vietnam	NOMAFSI (Northern mountainous Agriculture and Forestry Science Institute)
Vietnam	PGS
Vietnam	Seed to table
Zambia	Ministry of Agriculture
Zimbabwe	Actionaid
Zimbabwe	LVC
Zimbabwe	University of Zimbabwe
Zimbabwe	ZIMSOFF



#### SUMMARY FOR DECISION-MAKERS |FAO REGIONAL SYMPOSIA |ON AGROECOLOGY



The recently adopted Sustainable Development Goals pose us with a new big challenge: I quote - "to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture". To achieve this by 2030, in 15 years-time, we need to shift to sustainable food systems that produce more with less environmental costs. And we need to do it fast.

Agroecology offers a promising and innovative solution. Most importantly, it recognizes the central role of millions of smallholder and family farmers. They produce most of our food. But with climate change, farmers need even more the support of public policies / to continue playing this essential role.

Agroecology training, public procurement, secure tenure rights – these are some of the promising avenues of Government support.

José Graziano Da Silva Director General, FAO

Regional meeting on Agroecology for food security and nutrition in Sub-Saharan Africa

For more information: agroecology@fao.org