THE PRINCIPLES OF AGROECOLOGY
TOWARDS JUST, RESILIENT AND SUSTAINABLE FOOD SYSTEMS
This document has been developed by the CIDSE Task Force on agroecology and is the result of a collaboration and dialogue held over the past year. The group consists of the following member organisations: Broederlijk Delen (Belgium), CAFOD (England and Wales), CCFD-Terre Solidaire (France), Entraide & Fraternité (Belgium), Focisv (Italy), KOO/DKA (Austria), MISEREOR (Germany), SCIAF (Scotland) and Trócaire (Ireland).

The examples illustrating the four dimensions of agroecology were identified and written by CAFOD (“Transforming Soil and Livelihoods in Rural Bangladesh”); CCFD-Terre Solidaire (“How a microfinance institution tailored financial products to the environmental impact of farming practices”; “Creating national agroecology platforms to address political dialogue in Niger, Burkina Faso and Mali”), Focisv (“Increasing resilience through mangrove rice cultivation”), MISEREOR (“Access to land and agroecology: a contribution to empowering women in India”; “The benefits of a farmer-led transition to agroecology in the Philippines”) and Trócaire (“Agroecology benefits rural economies”).

CIDSE would like to thank George Dixon Fernandez (FIMARC); Paulo Petersen (AS-PTA – Brazil); Joachim Milz (ECOTOP Consult – Bolivia); Octavio Sánchez (ANAFAE – Honduras); José Luis Espinoza (CEHPRODEC – Honduras); Claudia Pineda (AHCC – Honduras); Michel Pimbert, Jahi Chappell, Annemie Bernhaut, Carla Kay and Chris Maughan (Centre for Agroecology, Water and Resilience from Coventry University – UK); Stephane Bellon (INRA/Agroecology Europe – France); Margriet Goris (University of Vicoza, Brazil/ Wageningen University/Agroecology Europe) and Emile Frison (International Panel of Experts on Sustainable Food Systems – IPES-Food/Bioversity) for their precious comments and feedback and for the resources made available to inspire this paper. CIDSE would also like to thank Paul Holland and Angela María Ocampo for their support to this project.

This paper is published as part of a broader online multimedia dossier which includes related background documentation and video interviews. Our objective is to further develop a joint vision and understanding of agroecology. We will continue our dialogue with partner organisations and allies as well as with decision makers. The document is a living one which will be updated within the next 1.5 year.

Contact: François Delvaux, Climate & Agriculture and Food Sovereignty Officer
Email: delvaux@cidse.org
Published in April 2018

By CIDSE, Rue Stévin 16, 1000 Brussels, Belgium, www.cidse.org
Editor in Chief: Josianne Gauthier
Editor: Valentina Pavarotti
Credits cover page pictures:
Top line, from left to right: Global Justice Now – Development and Peace
Middle line, from left to right: Fergal Anderson – Maren Barbee
Bottom line, from left to right: Daniele Daly – Robert Couse-Baker
Printed on 100 percent recycled cyclus print paper produced without chemical or optical bleaching
This paper is available on-line in ES/FR/GE/IT/NL/PT at www.cidse.org/resources and as part of a multimedia dossier with additional resources at https://agroecologyprinciple.atavist.com.
What do we mean by agroecology? What does it look like? Is it scalable? Can we give concrete examples? How could we invest in or support it? Is it productive? Is there data proving its efficiency, that it is delivering on its promises? These are a few of the questions that often come up when speaking with people who are not terribly familiar with agroecology. When talking with people who are familiar with it, they raise other issues:

- “I don’t think they are really talking about agroecology: agroecology is not restricted to improving life in soils, it is so much more than that,”
- “It’s incredible, they use the word agroecology, but they’ve totally emptied it of its true meaning, it looks like they are using it to green-wash the industrial model”,
- “This might be how scientists are interpreting agroecology but peasant movements see it differently”,
- ”He/she’s not using the concept of agroecology but what he/she’s talking about is very much in line with how we see and define agroecology”, etc.

We could go on and on. Generally speaking there is a need to clarify what agroecology is and what it is not in order to gather political support, for the discipline to flourish, to avoid co-optation and fight against false solutions, etc. Social movements, civil society, international institutions, and academics have made several attempts to clarify what agroecology means over recent years and this trend continues with many still trying to clarify it.

In our network, we felt there was a similar need for clarification and alignment. What follows is the initial outcome of this work. We decided to split the different principles into the four dimensions of sustainability: environmental, socio-cultural, economic and political. We believe it is a good way to capture the complexity and multi-dimensional aspect of agroecology. It allows us to understand agro-ecosystems and food systems by taking into account the social, economic, and political contexts in which they sit.¹ It also builds on categories of principles that have already been identified in previous work done by others in the agroecological movement.

We are clear what we are trying to achieve. Our aim is not to build a new definition of agroecology but rather to identify principles that will strengthen our narrative as well as our advocacy and programme work. We want to develop further a common vision and understanding of what agroecology (which we see as one of the main elements in achieving food sovereignty and climate justice) means and looks like.

This is the first step in a broader process that will also include the development of a practical guide which, together with these principles, should serve as the basis for initiating a dialogue in different parts of the world and within the member organisations of our network (assessing current practices and strategies). As our societies face deep social, environmental and economic crises and climate change imposes on our societies deep and radical shifts from current models of production and consumption, there is a certain urgency for agroecology to be understood and supported widely. With this humble contribution, we hope and believe that we can contribute to strengthening the existing agroecological movement, which is the purpose of what we are doing on agroecology.
1. THE THREE FACETS OF AGROECOLOGY

Agroecology is:
• A scientific research approach\(^2\) involving the holistic study of agro-ecosystems and food systems,
• A set of principles and practices that enhances the resilience and sustainability of food and farming systems while preserving social integrity,
• A socio-political movement\(^3\), which focuses on the practical application of agroecology, seeks new ways of considering agriculture, processing, distribution and consumption of food, and its relationships with society\(^4\) and nature.

2. THE INTERDEPENDENCE OF AGROECOLOGY AND FOOD SOVEREIGNTY

Like Ibrahima Coulibaly, we believe that “there is no food sovereignty without agroecology. And certainly, agroecology will not last without a food sovereignty policy that backs it up”.\(^5\)

We wish to build on the perspectives developed by social movements actively involved in shaping and defining food systems. We also recognize and respect the work that has been done so far to clarify and develop the concept of agroecology and consider it as laying the foundations of this work.

3. PRINCIPLES: DEFINITION AND CHARACTERISTICS

Principles are a set of broad guidelines that constitute the building blocks of agroecology, its practice and implementation.

They build on the following characteristics:
• Agroecology promotes principles rather than rules or recipes of a transition process,
• Agroecology is the result of the joint application of its principles and their underlying values to the design of alternative farming and food systems. It is therefore acknowledged that the application of the principles will be done progressively,
• The principles apply across locations and lead to different practices being used in different places and contexts,
• All principles should be interpreted in the context of improving integration with the natural world, and justice and dignity for humans, non-humans and processes.

CIDSE views on food sovereignty: Food sovereignty is a policy framework which addresses the root problems of hunger and poverty by refocusing the control of food production and consumption within democratic processes rooted in localised food systems. It embraces not only the control of production and markets, but also people’s access to and control over land, water and genetic resources. It assumes the recognition and empowerment of people and communities to realise their economic, social, cultural, and political rights and needs regarding food choices, access and production. It is defined as: “The right of peoples to define their own food and agriculture; to protect and regulate domestic agricultural production and trade in order to achieve sustainable development objectives; to determine the extent to which they want to be self reliant; to restrict the dumping of products in their markets. Food sovereignty does not negate trade, but rather it promotes the formulation of trade policies and practices that serve the rights of peoples to food and to safe, healthy and ecologically sustainable production”.\(^6\)
In order to develop this set of principles, we tried to systematize, synthesize the work from various voices within the agroecological movement. Although we did not include footnotes or clear references systematically, this works builds on, was inspired by and further develops pre-existing principles. These are the resources we used:

**2016**

**2014**

**2013**
- Centre for Studies and Strategic Foresight (2013). Agro-ecology: different definitions, common principles.
- Rosset, P. and Martinez-Torres, M-E (2013). La Via Campesina and Agroecology in “La Via Campesina’s Open Book: Celebrating 20 Years of Struggle and Hope”.

**2012**

**2011**

**1995**

**WEBSITE**

**RESOURCES USED TO IDENTIFY AND DEVELOP THE PRINCIPLES**
1. THE ENVIRONMENTAL DIMENSION OF AGROECOLOGY

| 1.1   | Agroecology enhances positive interaction, synergy, integration, and complementarities between the elements of agro-ecosystems (plants, animals, trees, soil, water, etc.) and food systems (water, renewable energy, and the connections of re-localised food chains). |
| 1.2   | Agroecology builds and conserves life in the soil to provide favourable conditions for plant growth. |
| 1.3   | Agroecology optimises and closes resource loops (nutrients, biomass) by recycling existing nutrients and biomass in farming and food systems. |
| 1.4   | Agroecology optimises and maintains biodiversity above and below ground (a wide range of species and varieties, genetic resources, locally-adapted varieties/breeds, etc.) over time and space (at plot, farm and landscape level). |
| 1.5   | Agroecology eliminates the use of and dependency on external synthetic inputs by enabling farmers to control pests, weeds and improve fertility through ecological management. |
| 1.6   | Agroecology supports climate adaptation and resilience while contributing to greenhouse gas emission mitigation (reduction and sequestration) through lower use of fossil fuels and higher carbon sequestration in soils. |

THE IMPACT OF THIS DIMENSION

Through its environmental dimension and by applying principles which tend to mimic natural ecosystems, agroecology contributes to building more complex agro-ecosystems. Agroecology increases resilience and the capacity for systems to adapt to climate change in contexts in which climatic risks are common. For instance, “it has been demonstrated that increased biodiversity in the soil improves water use, nutrient uptake, and disease resistance of crop plants”. By delivering resilience, biodiversity often acts as a “buffer against environmental and economic crisis”. Through its environmental dimension, agroecology therefore helps to build self-sufficient, healthy, pollution-free systems that provide an accessible and diverse range of safe food, energy and other domestic needs. As a co-benefit of the application of its principles, agroecology also contributes to mitigating climate change e.g. building healthy soils and restoring depleted soils – thus contributing to carbon sequestration – or by reducing direct and indirect energy use – thus avoiding greenhouse gas emissions. Through efficient use of resources (such as water, energy use, etc.), agroecology also contributes to building resilience and increasing its efficiency. Beyond this major potential for resilience, mitigation and adaptation, agroecology provides a healthy, safe working environment for farmers and farm labourers as well as a healthy environment for rural, peri-urban and urban communities while providing them with healthy, nutritious, diversified food.

The online version of this publication also includes examples (projects, case studies or research) of the environmental dimension of agroecology:

- **Resilience, extreme weather events, and agroecology**: this example covers several studies that looked at agricultural performance after extreme weather events in Central America.
- **Transforming soil and livelihoods in rural Bangladesh**: this example shows how adopting vermi-compost and compost in Bangladesh has helped increase soil fertility, crop productivity and household incomes.
- **Improving resilience through mangrove rice cultivation**: this example focuses on mangrove rice cultivation which provides independence from chemical inputs and improves crop yields.

*Join us online to find out more about the impact agroecology actually has!*
2. THE SOCIAL AND CULTURAL DIMENSION OF AGROECOLOGY

2.1 Agroecology is rooted in the culture, identity, tradition, innovation and knowledge of local communities. Agroecology contributes to healthy, diversified, seasonally- and culturally-appropriate diets.

2.2 Agroecology is knowledge-intensive and promotes horizontal (farmer-to-farmer) contacts for sharing of knowledge, skills, and innovations, together with alliances giving equal weight to farmer and researcher.

2.3 Agroecology creates opportunities for and promotion of solidarity and discussion between and among culturally diverse peoples (e.g. different ethnic groups that share the same values yet have different practices) and between rural and urban populations.

2.4 Agroecology respects diversity between people in terms of gender, race, sexual orientation and religion, creates opportunities for young people and women and encourages women's leadership and gender equality.

2.5 Agroecology does not necessarily require expensive external certification as it often relies on producer-consumer relations and transactions based on trust, promoting alternatives to certification such as PGS (Participatory Guarantee System) and CSA (Community-Supported Agriculture).

2.6 Agroecology supports peoples and communities in maintaining their spiritual and material relationship with their land and environment.

» THE IMPACT OF THIS DIMENSION

As it starts from the existing knowledge, skills and traditions of farmers and food producers, agroecology is particularly well-suited to achieving their right to food. It allows the development of appropriate technologies closely tailored to the needs and circumstances of specific small-scale farmers, peasants, indigenous people, pastoralists, fisherfolks, herders, hunter-gatherers communities in their own environment.

In most developing countries, agriculture remains the most common occupation and the sector therefore offers the best opportunities for inclusive development. As such, it can help reverse rural-to-urban migration and family fragmentation. If people learn and apply agroecological practices and develop and control the value chain up to the end user, rural life and food production (in rural or urban environments) will once more be attractive and valued by society, thereby contributing to thriving local economies, social cohesion and stability.

By placing food producers at the heart of food systems (peer-to-peer exchanges of practice, promotion of food producers’ skills, etc.), increasing autonomy and revitalizing rural areas, agroecology contributes to giving a new value to peasant identities and strengthening peasant confidence and involvement in their local food system.

By bringing producers and consumers closer in shorter, more local value chains, and strengthening both groups’ role and voice, agroecology contributes to restoring justice to the food system by decoupling it from corporate power. It promotes trust and solidarity in the producer-consumer relationship and provides for nutritious, healthy and culturally-appropriate food for both groups. It supports local food diversity, thus helping protect local cultural identities. More direct marketing also reduces the food system's carbon footprint and pollution by reducing processing, packaging and transport.

Agroecology creates opportunities for women to increase their economic autonomy and, to some extent, influence power relationships, especially within the home while also expanding the diversity and value of roles available to men. Agroecology as a movement is supportive of women's rights because of its inclusiveness, the fact that it recognizes and supports women's role in agriculture, and because it encourages women's participation. Being in essence a struggle for social justice and emancipation, the agroecological movement should always go hand-in-hand with active feminism. As the impact of agroecology on gender relations is not automatically positive, a specific focus on women while implementing agroecology in its various dimensions is required.

The online version of this publication also includes examples (projects, case studies or research) of the social and cultural dimension of agroecology:

• Access to land and agroecology: a contribution to empowering women in India: this example shows how agroecology, by taking into account the gender perspective and creating a role for women, can contribute to empowerment.

Join us online to find out more about the impact agroecology actually has!
3. THE ECONOMIC DIMENSION OF AGROECOLOGY

- **3.1** Agroecology promotes fair, short distribution networks rather than linear distribution chains and builds a transparent network of relationships (often invisible in formal economy) between producers and consumers.

- **3.2** Agroecology primarily helps provide livelihoods for peasant families and contributes to making local markets, economies and employment more robust.

- **3.3** Agroecology is built on a vision of a social and solidarity economy.

- **3.4** Agroecology promotes diversification of on-farm incomes giving farmers greater financial independence, increases resilience by multiplying sources of production and livelihood, promoting independence from external inputs and reducing crop failure through its diversified system.

- **3.5** Agroecology harnesses the power of local markets by enabling food producers to sell their produce at fair prices and respond actively to local market demand.

- **3.6** Agroecology reduces dependence on aid and increases community autonomy by encouraging sustainable livelihoods and dignity.

**THE IMPACT OF THIS DIMENSION**

By using local resources and providing food to local and regional markets, agroecology has the potential to boost local economies and contribute to eliminating the negative impact of international ‘free’ trade on small-scale food producers’ livelihoods. Agroecological practices are economically viable as agroecological production methods reduce the cost of external inputs and therefore allow greater financial and technical independence and autonomy for food producers. By diversifying production and peasant activity, food producers are less exposed to market-related risks such as price volatility or loss due to extreme weather events exacerbated by climate change. Small-scale farmers in particular benefit from implementing agroecology, as they can sustainably increase their yields, improve their food and nutrition security and raise their income. With regard to productivity and revenues, agroecology is particularly beneficial for less well-off households and can thus be described as inherently “pro-poor”. Agroecology also contributes to economies by providing appropriate technology and food-based employment opportunities in rural and peri-urban areas. At the same time, it can offer a livelihood for people in cities with a small plot or access to public land. One of the objectives of agroecology is to provide decent work that respects human rights and provides a decent income for food producers. By decreasing the distance between producer and consumer, agroecology reduces storage, refrigeration and transport costs, as well as food loss and waste. Agroecology takes externalities for society and environment fully into account, as it minimizes waste and reduces effects on health, and supports positive externalities such as ecological health, resilience and regeneration.

The online version of this publication also includes examples (projects, case studies or research) of the economic dimension of agroecology:

- **Agroecology benefits rural economies**: this example shares the main findings of a study run in Guatemala, highlighting the positive financial impact of adopting agroecology.

- **How a microfinance institution tailored financial products to the environmental impact of farming practices**: this example is about how a microfinance institution developed a type of loan with an interest rate that varied according to the environmental impact of the practices adopted by farmers.

*Join us online to find out more about the impact agroecology actually has!*
4. THE POLITICAL DIMENSION OF AGROECOLOGY

4.1 Agroecology prioritises the needs and interests of small-scale food producers who supply the majority of the world’s food and it de-emphasises the interests of large industrial food and agricultural systems.

4.2 Agroecology puts control of seed, biodiversity, land and territories, water, knowledge and the commons into the hands of the people who are part of the food system and so achieves better-integrated resource management.

4.3 Agroecology can change power relationships by encouraging greater participation of food producers and consumers in decision-making on food systems and offers new governance structures.

4.4 Agroecology requires a set of supportive, complementary public policies, supportive policymakers and institutions, and public investment to achieve its full potential.

4.5 Agroecology encourages forms of social organisation needed for decentralised governance and local adaptive management of food and agricultural systems. It also incentivises the self-organisation and collective management of groups and networks at different levels, from local to global (farmers organisations, consumers, research organisations, academic institutions, etc).

THE IMPACT OF THIS DIMENSION

Through its political dimension, agroecology transfers the source of power in food systems from focusing on the interests of an increasingly small number of large industrial agricultural entities to direct producers, i.e. small-scale food producers who supply the majority of the world’s food. It challenges and helps remedy the injustices caused by corporate power’s domination in the existing food system. When part of a food sovereignty approach, agroecology represents a democratic transition in food systems that empowers peasants, pastoralists, fisherfolks, indigenous peoples, consumers and other groups, allowing their voice to inform policy making from community to national and international level. It lets these groups claim/achieve their right to food.

The political dimension of agroecology gives practical expression to food sovereignty, placing small-scale food producers at the heart of policy processes and decisions that affect them. It seeks to meet multiple challenges from security of access to productive resources (land, water, seed), to food and nutrition security through climate resilience with sustainable long-term solutions that promote agroecological diversification and food sovereignty. Agroecology movements, that are commonly composed of grassroots food producers and consumer-led, are promoting a spreading of agroecology to other farmers and communities (horizontal scaling up or scaling out).

Alongside scaling out, the political dimension requires a favourable public policy environment in which agroecological solutions can be multiplied (vertical scaling up).

The online version of this publication also includes examples (projects, case studies or research) of the political dimension of agroecology:

- **The benefits of a farmer-led transition to agroecology in the Philippines**: this example focuses on how Filipino food producers organised themselves to regain control over resources by involving all the protagonists and farmer/scientist partnerships, and overcame unequal power relationships.

- **Creating national agroecology platforms to address political dialogue in Niger, Burkina Faso and Mali**: this example shows how different stakeholders came together to create national platforms for agroecology and how their work started to influence policy.

*Join us online to find out more about the impact agroecology actually has!*
As highlighted in the introduction, the social, environmental and economic crisis we face calls for a profound change in the way our food systems are organised. Climate change makes it an imperative and adds a certain sense of urgency. This necessitates tackling all four dimensions of agroecology together. The separation into several dimensions helps us to understand the potential of agroecology more clearly, but it must be seen as a whole, as a holistic approach. Indeed, many farmers and peasants stress the holistic character of agroecology, as a way of living, something which gives sense to life. To them, it is not merely about providing a means of livelihood and a sustainable agro-ecosystem but of living in harmony with nature and other people. Equally, the potential impact of agroecology must not be limited to a single dimension.

Unfortunately, lack of clarity has been used by some to weaken the concept of agroecology: “suddenly agroecology is in fashion with everyone, from grassroots social movements to the FAO, governments, universities and corporations. But not all have the same idea of agroecology in mind. While mainstream institutions and corporations for years have marginalized and ridiculed agroecology, today they are trying to capture it. They want to take what is useful to them – the technical part – and use it to fine tune industrial agriculture, while conforming to the monoculture model and to the dominance of capital and corporations in structures of power”.  

This paper is our own attempt to clarify what agroecology means, what it looks like and show that, when taken as a whole, agroecology and its various principles can lead to tremendous positive effects in terms of human rights and the right to food. At the same time, it contributes to tackling the root causes of the issues our societies are currently facing and challenging existing power structures. This is why agroecology, as a movement, is key to us.

We are well aware that ultimately, many complimentary political actions, a transition process and a paradigm shift will be required for agroecology to deliver and its principles be applied jointly and progressively. We are also aware that the principles listed above might evolve, might need to be revised, might not be perfectly well phrased or not 100% in line with what agroecology looks like in practice. But we see this as a first step in a wider process that will eventually lead to an updating and further illustration of the current list of principles we identified.

Next steps include building a “practical guide to using the principles” that would ideally serve as a basis for initiating dialogue between our organisations (on advocacy strategies and programmes and consistency between them) as well as within the broader agroecological movement. This therefore needs to be seen as a living document and an invitation to start a dialogue on what agroecology means and looks like.

As we see it, agroecology can be defined as a coherent concept for designing future farming systems as it is strongly rooted both in science and in practice, and because it shows strong connections with the principles of the right to adequate food.

Olivier De Schutter
REFERENCES


8. When using the terms “small-scale food producers” or “food producers” we understand them as encompassing the following groups: small-scale farmers, peasants, indigenous peoples, pastoralists, fisherfolk, herders, hunter-gatherers communities…


11. “Resilience can be measured in relation to sustained production, overall agroecosystem health, and the system’s ability to respond to distress over long time periods” in Brym, Z.T., Reeve, J.R. (2016). Agroecological Principles from a Bibliographic Analysis of the Term Agroecology.


16. FAO website: “10 key elements of Agroecology”.

17. The right to adequate food is achieved when every man, woman and child, alone or in community with others, has the physical and economic access at all times to adequate food or means for its procurement. http://www.fao.org/right-to-food/en.

18. Feminism is “the advocacy of women’s rights on the ground of the equality of the sexes”. (Oxford Dictionary).

19. ILO: The social and solidarity economy (SSE) is a concept that refers to enterprises and organisations, in particular cooperatives, mutual benefit societies, associations, foundations and social enterprises, which specifically produce goods, services and knowledge while pursuing economic and social aims and fostering solidarity.


22. “The commons refer to forms of wealth that belong to all of us and that must be actively protected and managed for the good of all. Commons can be natural, such as air, water, land, forests and biodiversity; social and institutional, such as public goods, spaces and services; political, such as collectively held notions of democracy, justice and governance; and intellectual and cultural, such as general knowledge, everyday technology, shared music and scientific truths. While such categories may differ across countries and regions, commons generally consist of resources that communities and societies recognise as being accessible to everyone, and that are conserved and managed collectively for use by present and future generations”. Guttal, Shalmali, Manahan, Mary Ann, “In defense of the commons” (2015).

23. “Smallholders provide up to 80 percent of the food supply in Asian and sub-Saharan Africa” (FAO Factsheet on smallholder and family farmers) and “The vast majority of the world’s food is produced by family farms, which also house the majority of poor and hungry people worldwide”. (FAO).


CIDSE members

Austria

Belgium

Canada

England and Wales

Germany

Ireland

Luxembourg

the Netherlands

Slovakia

Scotland

Switzerland

USA

USA

Contact

CIDSE – Rue Stévin 16 – B-1000 Bruxelles
T: +32 (0)2 230 77 22 – F: +32 (0)2 230 70 82 – postmaster@cidse.org
www.cidse.org
https://agroecologyprinciple.atavist.com