

Self-diagnosis of agroecological practices in a family farming context

METHODOLOGICAL HANDBOOK



Self-diagnosis of agroecological practices in a family farming context

METHODOLOGICAL HANDBOOK



Table of Contents

Foreword	3
Background to the handbook	4
Description of the "self-diagnosis of agroecological practices in a family farming context"	5
Context of use and limits of the tool	7
1 Preparation of the workshop	9
The people involved in the workshop	9
The role of the facilitators	10
2 Presentation of the workshop	11
Presentation of participants	11
Presentation of the workshop	12
3 Presentation of agroecology	13
Presentation of the principles and dimensions	16
Conclusion	17
4 Presentation of the diagnostics of agroecological practices	19
Explanation during plenary session	20
Work in subgroups	21
5 Self-diagnosis: environmental dimension	25
PRINCIPLE 1 Favourable ground conditions for plant growth	26
PRINCIPLE 2 Efficient management of resources (water, energy) in agricultural systems	28
PRINCIPLE 3 Optimisation of synergies within the food and agricultural systems	30
PRINCIPLE 4 Optimisation of the biodiversity temporally and spatially	32
6 Self-diagnosis: socio-economic dimension	35
From the farm to the table game	36
PRINCIPLE 5 Decent working conditions and sustainable solutions for food and agricultural systems	38
PRINCIPLE 6 Economic sustainability of the systems	40
PRINCIPLE 7 Access to markets	42
PRINCIPLE 8 Development of the rural world and short, fair distribution networks	44
PRINCIPLE 9 Diversification of incomes, resilience to crises	48
PRINCIPLE 10 Healthy diet rooted in the local culture	50
7 Self-diagnosis: political-organisational	53
PRINCIPLE 11 Public policies and public investments that favour agroecology	54
PRINCIPLE 12 Control of resources by key actors in agricultural systems	56
PRINCIPLE 13 Access to information and participation in participatory research schemes	59
8 Sharing and prioritising	61
Appendices	65
Glossary	65
Bibliography	72

Authors Daniela Arango, Dominique Morel and Marc Mees

Proofreading Géraldine Higel

This English translation has been possible thanks to the PerMondo project: Free translation of website and documents for non-profit organisations. A project managed by Mondo Agit.

Translation Joanna Wright and Nicholas Horton

Publisher Olivier Hauglustaine, 4 rue aux Laines, B-1000 Brussels (Belgium)

Coordination Marc Mees | mme@sosfaim.org | **T** 32-(0)2-548.06.70 | **F** 32-(0)2-514.47.77
info.be@sosfaim.org **www.sosfaim.be**

Graphics www.marmelade.be | Printed on recycled paper

Completed with the support of the Directorate General for International Cooperation and Development of Belgium



Belgium

partner in development

Foreword

Background to the handbook

Along with numerous organisations working on issues of agriculture, food and development, in 2016 “SOS Faim” also began to address the question of agroecology. This concept has in just a few years become indispensable in every sense to the food and agricultural systems that characterise our society. As an organisation committed to sustainable family farming, this concept was key to our organisation.

As such we proceeded with caution, as this was a question which seemed to have already attracted the attention of many international experts. Organisations such as the IPCC¹, and certain others have come together with the aim of producing knowledge that could change the discourse regarding the earth’s ability to feed its inhabitants.

We were cautious, because, in a world dominated by capitalist economic systems and international commercial agreements we were aware of the light-years it could take before we are able to implement agroecological principles.

Cautious, as well, as our partners² still do not seem sufficiently committed to agroecology.

And finally, cautious, for though it may be easy to be “for” agroecology, in practice it is very difficult to avoid tensions between certain principles. Should we encourage the practices of the Zai in Burkina Faso, which allow dry, compact land to be used at the risk of increasing already difficult working conditions in manual agriculture? Or, how should we on one hand resolve the immediate fodder needs of farmers in sub-Saharan African if they want to increase their production and raise their income, yet on the other hand discourage the use of imported food or the return to pumping which, in the medium term, depletes groundwater, leaving the next generation with the choice of migrating or digging an even deeper hole for themselves?

We were equally cautious with our partners³, to avoid slipping into a neo-colonialist approach dictated by environmental emergencies, while nonetheless remaining engaged in Belgium: firstly with the festival *Alimenterre*⁴ which, since 2008, has denounced world food crises and their catastrophic consequences on farmers around the globe. Secondly, with advocacy campaigns such as the one against chicken imported by Cameroon in 2010, or more recently the campaign against powdered milk, constantly adding to the environmental aberrations caused by international competition rules and trade agreements between states and regions. And

1 Intergovernmental Panel on Climate Change.

2 SOS Faim partners are above all first or second order farming organisations, rural financial institutions and local NGOs.

3 (ibid).

4 Documentary film festival organised by SOS Faim since 2008 in francophone Belgium

finally, through the public promotion of responsible consumption of fair-trade products and organic agriculture.

We had but one step left to take, and in 2017, we finally began to make a change, gradually, yet resolutely.

Gradually, as we needed to restart from the beginning. If the whole world is talking about agroecology, everyone has their own definition and adds their own emphases. More “farmer” like La Via Campesina or Roppa⁵, more “green” for certain NGOs or agricultural syndicates, more feminist, or more political for others. SOS Faim has therefore conducted preliminary work that consisted of returning to the list of principles chosen in the social, environmental and political domains. Thirteen principles have thus been retained, explained in the most scientific manner possible, then translated into a more accessible language.

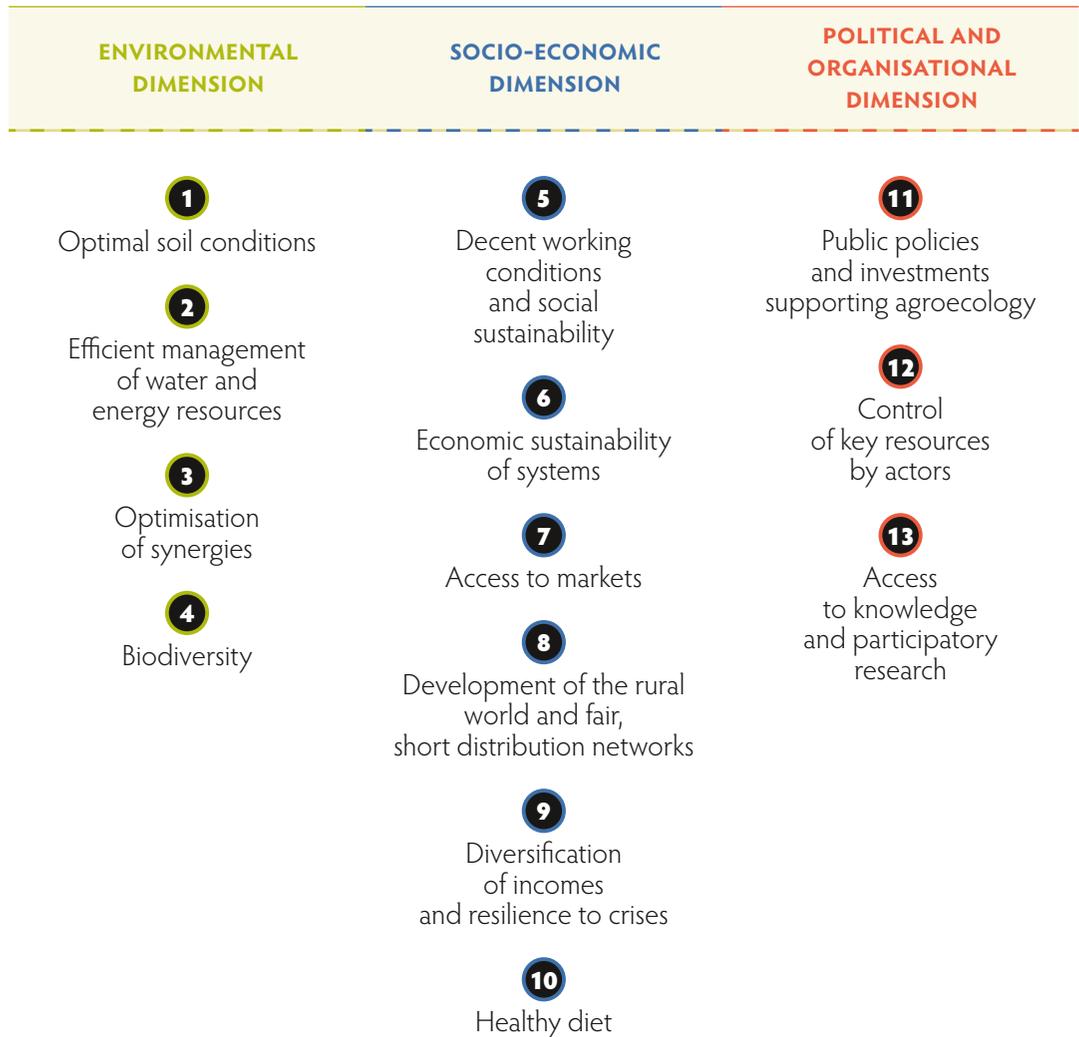
“Resolutely”, as this change, that has mobilised all SOS Faim stakeholders, has allowed us to lay the theoretical foundations of this agroecological approach and to advance, methodologically speaking, taking from European experiences in order to tackle this large and multifaceted concept with our partners from the south. The experience in Europe in fact shows that producers are keen to understand their practices and those of others by accepting that they are the result of a hierarchy between different principles and a compromise towards an “ideal agroecology”. Today, many prioritise certain aspects of the environmental dimension of production, but neglect the commercialisation, or even accept compromises on working conditions.

Thus emerged the idea of proposing a methodological tool in the form of a self-diagnosis table of agricultural practices to allow our interested partners to diagnose their situation under the different principles that define agroecology, and potentially to view them as the foundations of a considered agroecological transition.

5 Via Campesina is an international farmers movement comprised of more than 180 organisations in 80 different countries. The movement defends local agriculture and food sovereignty as a way for promoting social justice and dignity. Roppa is the network of Farmers Organisations and West Africa Producers.

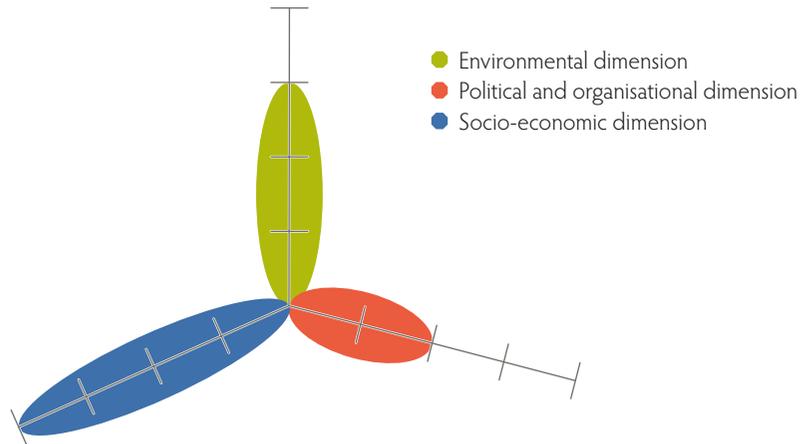
Description of the tool “self-diagnosis of agroecological practices in a farming context”

The “self-diagnosis of agroecological practices in a family farming context” tool is based on an analysis table formed around the 13 retained principles and classified in the 3 dimensions below:



For each principle, this handbook identifies the practices carried out by farmers and suggests a 4 step scale to gain a full understanding. These steps describe a situation on a scale of 1 to 4, from poor (level 1) to highly satisfactory (level 4). The 36 elements associated with the 13 principles allow a better understanding and hence a more precise definition regarding the diagnosis and the ranking of each scale.

DIMENSIONS OF AGROECOLOGY



The perceptions of populations are the main source of data used to inform the table and value the execution level of practices. The diagnostic is participatory and carried out by small groups of 6 to 10 people, and differentiates between groups of men and women.

This self-diagnosis is carried out in the context of a 2.5 day workshop and unites a group of 21 to 30 people, all members of a farmers organisations or representatives of a population of a given territory. During this workshop there are three predicted stages:

- **Presentation of agroecology** in its three dimensions (**environmental, socio-economic and political and organisational**). Each dimension is illustrated by the principles retained by "SOS Faim" with some practical examples adapted to the local context.
- **Diagnosis** that is carried out in small groups using a scale for each of the retained principles: this is the central part of the workshop.
- **Analysis of the results and definition of the priorities** of the organisation

These stages are described in detail in the present handbook and allow to guide the facilitators step-by-step to carry out the self-diagnosis.

Context of use and limits of the tool

The tool was deployed in countries where “SOS Faim” intervenes: in Burkina Faso with APIL⁶, in Senegal with FONGS⁷, and in Peru with CAAP⁸. In these three cases, the work was carried out by a team composed of “SOS Faim” and of the local partner with a group of people representing a farmer’s organisation⁹. These partners, NGO support and second level farmers organisations have both the skills for pedagogic matters and an interest to develop and expand their understanding of agroecology.

These experiences have proven that this tool is a **powerful instrument of dialogue within a farmers' organisation**, and allows a **global approach to the various dimensions of agroecology** that are too often considered solely within their environmental context. It is therefore first of all a **tool that brings together and reinforces the abilities** of a group regarding agroecology, and which encourages reflection of the agroecological transition. If it is monitored and becomes part of support work, it provides the possibility for partners to **take a strategic position on an evolving trajectory** as a farmers’ organisation or development NGO. By knowing the producers’ levels within each principle, we can determine the priorities and the concrete actions required in order to progress with the agroecological transition. In this sense, the self-diagnosis can be seen as a **foundation** and could even, in some years time, be used to compare the members’ perceptions.

However, as the tool is based on the perceptions and knowledge of the participants, **it is not a scientific diagnostic of agroecological practices**, and cannot serve as a comparison between different groups. It can, however, be complemented by a series of measures and data obtained over the course of interviews or in the context of extended studies.

The tool was initially conceived for members of the farmers’ organisation, and can be used with a wider public, regrouping those active in the field of food and agricultural issues: technical services, leaders of local collectives, rural youth associations, consumers, etc. It does not necessarily require a very literate public and can therefore be carried out in very isolated areas.

This handbook presents the methodology of the workshop with the aim of helping a team of facilitators in their self-diagnosis. It is not strict and leaves some freedom to the facilitators, particularly regarding context, and in outlining the principles and highlighting the importance of some over others.

As the creators of the handbook, we remain interested by the response of future users. As such, do not hesitate to send us your suggestions and the results of your experiences. We hope you enjoy reading this handbook!

Dominique Morel and Marc Mees

6 Action pour la Promotion des Initiative Locales (Action for the Promotion of Local Initiatives).

7 Fédération des ONG du Sénégal (Federation of NGOs in Senegal).

8 Centrale agro-andine du Pérou (Agroandina Centre of Peru).

9 Union of Boussouma, Burkina Faso, Diouloulou Agreement in Senegal and Coopain Cabana and Agrovas in Peru.

1

Preparation of the workshop

The people involved in the workshop

This workshop is aimed at farmers' organisations (cooperatives or organisations) or at NGO partners who work directly with the groups/organisations of producers.

The composition of the group must be adapted to the specific situations of the partner organisations, but it primarily addresses the elected and unelected members of the organisations, as well as their technical teams (technicians/animators). Some external resource persons may also be invited. They must have a good understanding of the area, the local agricultural systems and/or the rural socio-economic dynamic in their whole.

In total, the group must be comprised of between 21-30 people

Ideally, we need a balanced group with the following characteristics:

- Producer members (12-15 people)
- Elected producers (3-5 people)
- Employees/technicians of farmers' organisation (if NGO: employees of the NGO) (3-5 people)
- Resource persons (department technician, people active in rural development, elected/technician of a relevant community, local researcher involved in agricultural questions, businessperson in the food industry).

Ideally, women represent half of the participants. In some contexts, this ratio may reduce to 30%.

A balance must be achieved in age: ideally, half of the participants (men and women) are under 40 years old.

The role of facilitators

The workshop needs **three facilitators** (of which at least one must be a woman).

These facilitators must **understand the principles of agroecology** in a general sense as well as the objective and the expected results of this workshop so they are able to explain them to the participants. In order to do so, they must have followed the guide and validated the proposed ranked steps for each principle and element. They must also have validated the proposed practices as an example of “good practice” in the presentation of each of the dimensions, certain practices being adapted in certain contexts but without reason or pertinence to another.

During the group work, they must **encourage reflection and individual participation** so that each participant can express themselves, and so that no one person dominates or influences the others during discussions. They must also encourage everyone’s participation.

When it comes to the results, the facilitators must **listen to the participants attentively** and verify that the scores for each principle correspond accurately with the participants’ opinions.

If, during the vote, there are “atypical” results in comparison with the rest of the group, it is important that the facilitator attempts to understand the reasons for this. Ideally, the facilitator will write the participants’ results either directly on the Excel table, allowing conclusions to be drawn directly, or on a separate paper that will be introduced into the summary table of different subgroups.

The facilitators are responsible for the time management and ensuring that the rules of the game are respected.

2

Presentation of the workshop

 PARTICIPANTS	> The group (21-30 people)
 TIME	> 45 mins
 OBJECTIVES OF THIS SECTION	> Presentation of participants > Presentation of workshop and logistics
 HUMAN RESOURCES AND INFRASTRUCTURE	> The facilitating team (3 facilitators)
 REQUIRED MATERIALS	> A room to welcome the group > A projector or a poster with the conclusions from the morning > Marker pens, paper and pens

ACTIVITY

Presentation of participants

- OPTION 1** > Each participant says his/her name, role (producer, leader, technician) and if he/she takes part in agroecology.
- OPTION 2** > In pairs, the participants must present themselves to each other by saying their name, their role and if they take part in agroecology. Then each person presents their partner to the group.
- OPTION 3** > Depending on the context, another option more adapted to the presentation may be used.

Presentation of the workshop

A facilitator presents the following:

- The objectives of the workshop
 - Create a picture of the farmers' organisation and its area with regards to agroecology
 - Set up discussions of the results of the diagnostic (strong points, weak points)
 - Identify key areas to be implemented by the organisation
- The conditions of success for the workshop
 - Good preparation (choice of participants and facilitators)
 - Playing the game
 - Getting involved and participating
- The stages of the workshop
 - General definition of agroecology (in plenary session)
 - Diagnostic (in subgroups) of the environmental dimension
 - Diagnostic (in subgroups) of the socio-economic dimension
 - Diagnostic (in subgroups) of the political-organisational dimension
 - Assembling the diagnostic and prioritisation (in plenary session)
- Working hours and logistics (housing, food, etc.)
- The program:

DAY 1	DAY 2	DAY 3 (1/2 DAY)
<ul style="list-style-type: none"> ► Welcome ► Basic principles of agroecology ► Reflection in subgroups: dimension 1 	<ul style="list-style-type: none"> ► Reflection in subgroups: dimensions 2 and 3 	<ul style="list-style-type: none"> ► Sharing work ► Prioritisation

3

Presentation of agroecology

 PARTICIPANTS	<ul style="list-style-type: none"> > The group (21-30 people)
 TIME	<ul style="list-style-type: none"> > 1:30 to 2 hours
 OBJECTIVES OF THIS SECTION	<ul style="list-style-type: none"> > Define the concept of agroecology and identify with the group the different dimensions and elements that make up agroecology (social, environmental, political dimensions)
 HUMAN RESOURCES AND INFRASTRUCTURE	<ul style="list-style-type: none"> > 1 facilitator > A room to welcome the group
 REQUIRED MATERIALS	<ul style="list-style-type: none"> > A projector/posters with > Marker pens > Paper and pens

ACTIVITY

Game of true/false

The host will make successive statements and ask the participants if they are **TRUE** or **FALSE**. This game can be played individually (questions asked to the group) or in teams (for example 3 or 4 teams who have a few minutes each time to discuss and agree on an answer).

The following statement can be adapted depending on the context:

<p>➤ Agroecology (AE) is like organic agriculture</p> <p>AE is larger and includes the majority of organic certified practices. It is more of an ideal we are aiming for, rather than a fixed situation we are or are not in.</p>	FALSE
<p>➤ AE means to use improved seeds</p> <p>However AE does not exclude improved seeds.</p>	FALSE
<p>➤ AE is to ask technical services to have easier access to cheap fertilizer.</p> <p>It in fact asks technical services to facilitate the access to organic fertilizer, if necessary in conjunction with the chemical fertilizers, if the context requires.</p>	FALSE
<p>➤ AE is the implementation of a communal reforestation plan discussed by concerned parties.</p> <p>A reforestation plan suggests the introduction of trees that are important for the agroecological systems. The discussion should provide the concerned parties with a greater understanding.</p>	TRUE
<p>➤ AE is to specialise in one or two crops or breeding activities with the aim of producing a high yield.</p> <p>This model often leads to a specialisation with negative impacts regarding biodiversity and resistance to illness. However, we can specialise intelligently in AE.</p>	FALSE
<p>➤ AE is to process products locally.</p> <p>As such, the added value created by this processing will directly benefit the local population.</p>	TRUE
<p>➤ AE favours export crops.</p> <p>Export cultures are often the roots of pollution and global warming as well as sources of monoculture. However, it is possible to combine AE and certain export cultures thanks to fair-trade and organic labelling.</p>	FALSE

<p>► AE is to decide together, at the heart of the organisation, what type of agricultural inputs we want to use in the region.</p> <p>This is key, as the type of agricultural inputs we use and the way in which we use them impacts our neighbours and/or what the organisation produces (if it markets collectively).</p>	<p>TRUE</p>
<p>► AE protects soils from erosion.</p> <p>Erosion is a critical factor in the management of soil and fertility.</p>	<p>TRUE</p>
<p>► AE is to buy cheap corn and resell it when prices go up.</p> <p>The margin will go to the retailer, inhibiting the farmers from making a good living from their work. Unless the organisation (not the retailer) takes it on.</p>	<p>FALSE</p>
<p>► AE is to be present in the markets and know your clients.</p> <p>We can therefore raise awareness regarding the importance of good quality products for health, production methods and farmers' livelihoods.</p>	<p>TRUE</p>
<p>► AE is to encourage the production of different crops in one region.</p> <p>Polyculture is beneficial to biodiversity and reduces exposure to climate and economic risks.</p>	<p>TRUE</p>
<p>► AE is to find outlets in the main chains of distribution.</p> <p>In this model we would distance ourselves from the consumer and we are not in control of the price, which would be driven down. Yet, combined with other distribution strategies, this may make sense.</p>	<p>FALSE</p>

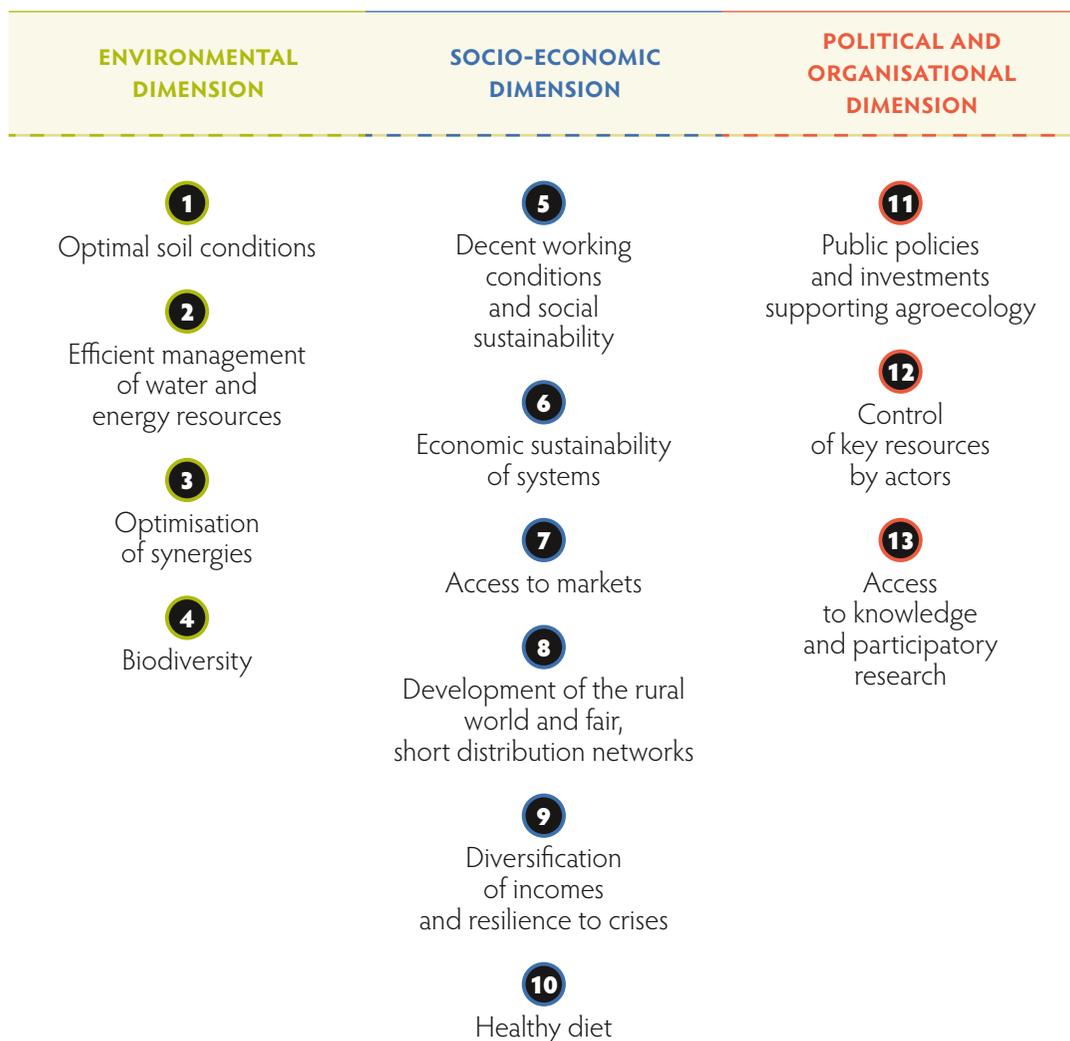
The facilitator concludes on these different aspects of observation of agroecology:

- from production to sales
- from field to landscape
- from practice to policy
- the facilitator notes the questions from the debate in order to illustrate his/her words during the presentation of the principles

Presentation of principles and dimensions

The facilitator presents the following principles with help, if necessary, from the table of principles. He/she must bear in mind the reasons for each principle and demonstrate them using one or two examples.

The idea is not to focus on the details, (the principles are discussed in plenary sessions for each dimension before the work in subgroups) but to provide key words and to ensure that the participants understand.



Conclusion

Finally, the main aspects to bear in mind from this introduction are:

- AE encompasses the whole chain of value of a product and concerns all parties.
- Organic agriculture constitutes part of AE, but is not the only aspect of AE.
- AE is applicable everywhere but is practiced differently depending on the context.
- AE is a way of understanding modes of production and consumption.
- AE concerns plots of land, territories, organisations and institutions.
- AE has multiple objectives:
 - The preservation of natural resources and biodiversity
 - The reduction of negative effects: water pollution, bad diets, greenhouse gas production
 - The generation of stable, local incomes
 - The increase of the resilience of farmers
 - The promotion of the importance of human and social aspects

4

Presentation of the diagnostic of agroecological practices

 PARTICIPANTS	<ul style="list-style-type: none"> > 3 subgroups of 7-10 people
 TIME	<ul style="list-style-type: none"> > 1.5 days maximum
 OBJECTIVES OF THIS SECTION	<ul style="list-style-type: none"> > Define a value for each element of each dimension. We can ask everyone for an estimate between 1-4, as the handbook suggests, or ask the participants to place themselves between 0-100% of agroecological practices
 HUMAN RESOURCES AND INFRASTRUCTURE	<ul style="list-style-type: none"> > 3 facilitators > 3 rooms or 3 different spaces
 REQUIRED MATERIALS	<ul style="list-style-type: none"> > 3 pieces of paper that explain a principle, its elements and the scoring system > 3 card games with the principles > 3 games of 8 cards with individual ranking > 6 rules of the game > A board and markers > 3 pieces of paper per principle that re-list the individual rankings to be filled in by the facilitators



Explanation in plenary session

The facilitator explains how it works:

- ▶ At the beginning of the diagnostic of each dimension we will re-examine the principles with the help of a document that provides the definitions and illustrates the principles with photos adapted to the context.
- ▶ We will divide into subgroups: each subgroup must be organised in a way that allows all the participants to express themselves freely and comfortably. There will be a subgroup of women.
- ▶ Each subgroup will work on all of the principles. This will take between 1-1.5 days of work.
- ▶ We will explain the principles and their elements and evaluate their relevance (certain elements are not adapted to the context and/or do not make sense).
- ▶ We will define what each element means in terms of practices adapted to the context. The participants may then explain what they do and compare it to what they could do. This avoids a self-diagnostic directed only at what we know.
- ▶ We note down the practices that are carried out/observed by the participants, specifying where they apply (in a particular culture, in a specific zone). The practices that represent the zone and/or grouping must be prioritised.
- ▶ When ready, each participant ranks the elements according to the levels (1-4) or situates themself between 1-100%.

EXAMPLE for the principle "optimal soil conditions":

A participant explains that he/she composts but does not specify that he/she only does it for the plots or the vegetable garden, and that for the rest of the farm he/she uses animal manure. This can be scored as a 3. However if it was previously explained that examining the practices on the farm as a whole and that modifications can be made on the basis of the soil analysis, hedge placements or the rows of leguminous plants, rotate the vegetables, introduce organic fertilizer, the score will return to 1 or 2.

The rules of the game:

- There are no stupid questions!
- 1 participant = 1 voice that is worth the same as the rest
- We respect others' points of view even if we do not agree
- We do not change subgroups during the workshop
- We respect the speaking time limits. Maximum 10 minutes for each discussion point
- At the end everyone must vote – no abstentions! (Votes are anonymous)
- We all vote at the same time. Everyone must vote according to his/her own opinion, not according to the neighbour's opinion

Subgroup work

For each dimension (environmental, socio-economic, political-organisational), the different principles are presented:

For each principle, the first table will re-use the following information:

The dimension



ENVIRONMENTAL



SOCIO-ECONOMIC



POLITICAL AND ORGANISATIONAL

The principle

Definition of the principle



PRINCIPLE 1

Favourable soil conditions for plant growth

DEFINITION ► Encouraging all practices that aim to enrich the soil with organic matter and nutritional elements to promote life in the soil, to protect the soil against erosion, for soil that is better primed for agricultural production with regards to the initial conditions (notably the nature of the soil and the climate).

ELEMENTS	EXAMPLES OF AGROECOLOGICAL PRACTICES
KNOWLEDGE	<ul style="list-style-type: none"> Laboratory analysis (nutriments) Observation of spontaneous vegetation Munsell colour system Texture/grain size Microbiology
FERTILIZATION	<ul style="list-style-type: none"> Deep and surface-level organic fertilization Solid and liquid compost/Vermicompost Use of microorganisms (MMOs)/digestate Directing seeding mulch-based cropping system (DMC): covering plants, mulch Improved fallow lands

The elements

Examples of practices as a prompt for the facilitators if the participants do not know what the principle is referring to.

- **The dimension:** environmental, socio-economic or political-organisational.
- **The principle:** there are 13 principles (See “presentation of the concept of agroecology”).
- **The elements of the principles:** there can be one or more: these are the different aspects that allow us to understand the principle and define the practices. As such, for optimal soil, we will examine the practices connected with knowledge of the soil, fertilization, soil work and erosion.
- **Some practices** considered agroecological. Presenting these practices in the handbook provides the facilitators with the tools to prompt or develop reflection. Ideally, the participants will describe the practices they implement in their own work without help from the facilitators.

The second table presents four different levels for each element. This is the objective of the workshop: participants position themselves on a level. The table is for the facilitator and does not have to be shared with the other participants.

For certain principles or elements, there is information regarding the level of observation: the individual plot or the land as a whole, the family farm or the farmers’ organisation in general. At times, it may come down to noticing a trend (for example, for the evolution of biodiversity).

Elements	Four levels per element			
ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
KNOWLEDGE	We do not know our soil.	We know a bit about our soil.	We know our soil well.	We know our soil well and its needs with regard to what we grow.
FERTILIZATION (Plot)	We do not do any type of fertilization.	We use some organic inputs and/or mineral inputs (chemical fertilizers) depending on our means/irregularly.	We regularly use organic inputs (good quality and quantity).	We know exactly what type of input we must use (quality and quantity). We prioritise organic fertilizers and we combine different techniques.
PROTECTION AGAINST EROSION (Plot and land)	Our soil is eroding progressively each year and we are not doing anything to avoid it. We notice it in the plots and in	There is erosion in certain areas. We are not gaining back the soil, but we are preventing it from continuing with	There is erosion in certain areas. We are preventing it from continuing with certain practices and we are	We make use of multiple practices and as such the soil does not erode. We are not losing soil.

The facilitator:

- Reads the principle and its definition as well as the elements that characterise it.
- Reads the first element, define it if necessary and ensure it is well understood.
- Writes down the practices described by the participants in two columns: the agroecological practices on one side and the non-agroecological practices on the other.
- Begins a discussion by presenting the “ideal” practices, emphasising the expected results. The participants then place their practices in the evolutionary scale. For certain elements, it is difficult to characterise all the levels. To position themselves the participants must ask themselves if: (1) they are on the way, (2) they have started the work, (3) they are half way there, (4) they are already very advanced.
- Shows the 4 level scale and asks the participants to write it down.
- Most of the time, the ranking will correspond with the real situation. It is, however, advisable to note down if there are trends: for example, a participant may be on level 2, but write down that he/she is on level 3. To note this, the host could use these signs [= ↗ ↘].
- Each element is written individually (an average will be calculated for the group)
- Continues with the following element of the principle.

5

Self-diagnostic: environmental dimension

Summary of the environmental dimension

The diverse types of agriculture that are derived from scientific agroecology endeavour **to make intensive use of natural and renewable resources**: solar energy for photosynthesis, carbon from carbon dioxide in the atmosphere to produce carbohydrates (sugar, starch, oils), nitrogen from the air for protein synthesis, minerals from the soil from daily weathering of bedrock, etc. These are thus the agricultures that practice soil covering, association of crops, integration of farming and agriculture, crops that use few external inputs and encourage all types of synergies (mycorrhizal fungi to flush out the minerals stuck between clay sheets, biopesticides, biological control, etc).

They endeavour **to make little use of rare and fossil resources**: petrol, natural gas, phosphate mines, etc. They prefer, for example to make proteins with biological nitrogen fixation of legumes rather than with synthetic nitrogen fertilizers, the manufacture of which is high in fossil energies. They also prefer to recycle nitrogen and phosphorus from farming wastewater through manure spreading.

They adhere to the **natural functions of the environment**. For example, they will refrain from eradicating insect infestations and pathogens in favour of living alongside them, while limiting their proliferation and their potential infestations.

Next, an organisation in subgroups will work on different elements of each principle.



PRINCIPLE 1

Favourable soil conditions for plant growth

DEFINITION ► Encouraging all practices that aim to enrich the soil with organic matter and nutritional elements to promote life in the soil, to protect the soil against erosion, for soil that is better primed for agricultural production with regards to the initial conditions (notably the nature of the soil and the climate).

ELEMENTS	EXAMPLES OF AGROECOLOGICAL PRACTICES
KNOWLEDGE	<ul style="list-style-type: none"> • Laboratory analysis (nutriments) • Observation of spontaneous vegetation • Munsell colour system • Texture/grain size • Microbiology
FERTILIZATION	<ul style="list-style-type: none"> • Deep and surface-level organic fertilization • Solid and liquid compost/Vermicompost • Use of microorganisms (MMOs)/digestate • Directing seeding mulch-based cropping system (DMC): covering plants, mulch • Improved fallow lands • Enrichment (crushed limestone, sanding, marling, etc.) to maintain the soil and restore eroded soil/Initial calcium phosphate fertilizer • Fertilization linked to the movement or night stabling of herds.
PROTECTION AGAINST EROSION	<ul style="list-style-type: none"> • Knowledge of erosion areas (type, significance) • Protection via permanent cover • Crop rotation and succession planting • Terrace cultivation • Stone walls and dykes • Grass strips • Windbreak hedgerow • Small rock dams, embankments
BIODIVERSITY OF THE SUBSOIL	<ul style="list-style-type: none"> • Polycultures • Long-term rotations (at least four years) • Sole use of organic substances • Associated crops • "Blanketing"/mulching (encouraging earthworms)
TILLAGE	<ul style="list-style-type: none"> • Harrowing/digging (layer 20cm under the surface) • Surface tilling of soil • Weeding and hoeing (loosening the surface of the soil around the planted crops) • Introduction of deep roots crops and legumes • Covering the soil before planting ("blanketing") • Mulching, covering of soil in humid areas

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
KNOWLEDGE	We do not know our soil.	We know a bit about our soil.	We know our soil well.	We know our soil well and its needs with regard to what we grow.
FERTILIZATION (Plot)	We do not do any type of fertilization.	We use some organic inputs and/or mineral inputs (chemical fertilizers) depending on our means/irregularly.	We regularly use organic inputs (good quality and quantity).	We know exactly what type of input we must use (quality and quantity). We prioritise organic fertilizers and we combine different techniques.
PROTECTION AGAINST EROSION (Plot and land)	Our soil is eroding progressively each year and we are not doing anything to avoid it. We notice it in the plots and in the landscape.	There is erosion in certain areas. We are not gaining back the soil, but we are preventing it from continuing with certain practices.	There is erosion in certain areas. We are preventing it from continuing with certain practices and we are starting to recover eroded soil.	We make use of multiple practices and as such the soil does not erode. We are not losing soil.
BIODIVERSITY OF SUBSOIL** (Plot)	We do not find any organisms (micro or macro) when we till the soil. We are not looking to encourage their existence.	We do not find any organisms (micro or macro) when we till the soil. We intend to encourage their existence with certain practices.	We find some organisms (micro and macro) when we till the soil. We intend to encourage their existence with certain practices.	We can attest to a large biodiversity (micro and macro organisms) in the subsoil.
TILLING/SOIL STRUCTURE*** (Plot)	We do have tilling practices that have negative effects on biodiversity, either through erosion or on the ability to nourish the crops. Compacted soil, poorly aerated, not drained, etc.	No negative effects. We do not have any practices that encourage or damage the soil structure.	We are beginning to modify our practices to improve the soil.	We have positive tilling practices that limit compacting and erosion and encourage aeration and drainage, etc.

** Micro-organisms (fungi, bacteria) macro-organisms (earthworms, termites, ants, centipedes)

*** For the tilling stage, the soil composition must be taken into consideration, as this stage could change depending on the type of soil.



PRINCIPLE 2

Efficient management of resources (water, energy) in agricultural systems

DEFINITION ► Thinking simultaneously in terms of efficient use of the two main resources: water and energy. Irrigation systems must limit losses from evaporation and if possible encourage water recycling, and covering the soil allows solar energy to be maximised.

ELEMENTS	GENERAL IDEA	EXAMPLES OF PRACTICES
ENERGY	SOURCE OF RENEWABLE ENERGY	<ul style="list-style-type: none"> • Solar pump instead of a petrol/diesel engine • Solar oven instead of wood or coal • Use of biogas in houses rather than wood
WATER	REASONABLE USE (irrigated and non-irrigated systems)	<ul style="list-style-type: none"> • Size of planks • Basin or ridge crops • Organisation of water distribution • Crops following contour lines • Adapted and resistant species • Works, irrigation networks and adapted drainage materials • Shaping the land (levelling, evacuation channels, bed profiles, basins). Efficient watering systems
	WATER REUSE	<ul style="list-style-type: none"> • Collecting and harvesting rainwater • Fish-farming-irrigation • Water filtration and purification
	CONSERVATION OF WATER IN SOILS	<ul style="list-style-type: none"> • Adding organic manure • Hoeing and ridging • Direct seeding mulch-based cropping system (DMC): mulch • Crop association, agroforestry • Hedging techniques (live hedges and windbreaks)
	PROTECTION AGAINST POLLUTION	<ul style="list-style-type: none"> • Use of natural, biodegradable treatments and fertilizers • Collection and use of livestock manure and excrement • Reduced use of artificial chemical pesticides through an integrated phytosanitary approach

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
REASONABLE USE	We are not worried about good water management, either because it is abundant or because it is cheap.			We have a reasonable water use: we prefer systems without irrigation with techniques that allow to make use the most of rainwater (which retains it). For the irrigated systems we have efficient watering systems, we avoid losses, we calculate the rotation of water and/or the volume; we water during appropriate periods.
REUSE	We do not intend to save, collect or reuse water.			We collect rainwater for both the crops and the house, we use sewage water from the house, we have filtration systems, etc.
CONSERVATION IN SOIL	We do not take any measures to encourage water retention.			We make use of multiple techniques to store water: small dykes, zai pits, mulch, trees surrounding plots, alternating deep root plants to encourage absorption.
PROTECTION AGAINST POLLUTION	We do not check water pollution and we do not take any measures.			We monitor pollution: we ban pesticides and control the water quality in wells/ boreholes.
MAXIMISATION OF RENEWABLE ENERGY	We do not take interest in renewable energy and we primarily use fossil energies at home and in the field.			We maximise renewable energy (wood, solar, biogas, wind) including on the plots, and we are careful to renew them (particularly wood).

The fact that column 2 and 3 are not completed does not mean you can only choose between 1 and 4. You must situate yourself in the intermediary levels between levels 1 and 4.



PRINCIPLE 3

Optimisation of synergies inside the food and agricultural systems

DEFINITION ► Thinking and encouraging positive interactions, complementarities and synergies between elements of the agricultural systems and food systems.

ELEMENTS	GENERAL IDEA	EXAMPLES OF PRACTICES
SYNERGIES	AGRICULTURE-LIVESTOCK FARMING-FISH FARMING-DOMESTIC INTEGRATION	<ul style="list-style-type: none"> • Crop/livestock integration • Development of local resources for livestock feed • Use of crop waste in fish feed • Production of organic material used in plots • Use of animals for agricultural work (transport, tillage, drainage) • Production of feed (crops/trees) for livestock • Harvesting forage species for livestock • Animal walkways/conflict management • Use of animal heat for humans (underground stables) or plants (greenhouses close-by) • Use of domestic waste and manufacturing of compost/biogas
	INTEGRATED CONTROL OF INFESTATIONS AND WEEDS	<ul style="list-style-type: none"> • Push-pull • Associated crops • Service plants • Refuge areas at border of plots • Milling intermediary crop/biopesticides (allelopathy) • Biological control
WASTE MANAGEMENT (farm/village)		<ul style="list-style-type: none"> • Recycling, separation, burning so as not to contaminate waters, animals, soils, land

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
AGRICULTURAL, LIVESTOCK, FISH, DOMESTIC SYNERGIES	The farms are not very diversified (monoculture/ mono-activity) or work without interaction.	Synergies are beginning between at least two activities on the farm.	We are looking to increase synergies between different activities on the farm.	All the elements of the farm are well integrated and we encourage synergies between agriculture, forest, livestock, and fish farming as much as possible, as well as in the home.
INTEGRATED CONTROL	We do not practice any integrated control and we use chemical pesticides without measuring doses.	We are beginning to alternate the fight against illnesses/ infestations with techniques or biological products.	We have an integrated control approach against infestations using techniques such as push-pull, biological control, associated cultures. We limit the chemical pesticides as much as possible.	We do not need to use chemical pesticides and we have a control based solely on biological products and techniques.
WASTE MANAGEMENT (farm/village)	In general we are not careful with waste, we do not recycle at home nor in the village or commune.	The village/ commune has started educating families and schools on certain aspects of waste (chemical products, plastic bags).	There is a system of sorting/ collection in the commune/ village. Families are beginning to be educated regarding issues of waste and their consequences on human and animal health as well as soil and water.	There is a system of waste collection in the area/village/ commune and certain wastes are recycled. We are very careful with our waste and we are beginning to try to reduce it. Waste that we produce in the home are sorted, then burned or collected.



PRINCIPLE 4

Optimisation of biodiversity temporally and spatially

DEFINITION ► Encouraging a wide range of species and varieties of vegetables as well as animal breeds in the plots, the farms and the rural territory (landscape). This biodiversity is measured within a species as well as within the ecosystem (presence of certain plants or animals that might disappear as a result of human practices, particularly agricultural practices).

GENERAL IDEA	EXAMPLES OF PRACTICES IN PLOTS
SPECIES	<ul style="list-style-type: none"> • Associated and successive crops • Grassy strips (Encouraging pollinators and discouraging infestations) • Sylvopasture • Hedges and windbreaks, fodder trees • Animal diversity
VARIETY/ ANIMAL BREEDS	<ul style="list-style-type: none"> • Sorting seeds, maintaining the diversity of varieties (rice, millet) • Different varieties depending on usage • Varieties and species adapted to local conditions (tested if "better" varieties).
EXAMPLES OF OBSERVATIONS ON LANDSCAPE LEVEL (EVOLUTION COMPARED WITH "BEFORE")	
<ul style="list-style-type: none"> • Hedges and sections of forests • Agroforestry • Areas of "natural or protected reserves" • Protection of tides and watercourses • Reintroduction of species • Hunting control/collection of certain species 	

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
BIODIVERSITY ON PLOTS AND FARM	We are in monocultures (with one or 2 varieties) or one type of livestock (1 or 2 animal species). We are not concerned by biodiversity.			We are developing in a conscious way the number of species and varieties in our work. We accept living alongside insect infestations, etc.
BIODIVERSITY IN LANDSCAPE¹⁰	We are in un-diversified zones (one or two crops). Certain species or animals, insects, birds, forest species or wild plants have disappeared.			We are in a very diversified zone (alternating forest, pastures, different crops). Our natural fauna is rich. The population and authorities are educated towards protecting certain animals or plants.

The fact that column 2 and 3 are not completed does not mean you can only choose between 1 and 4. You must situate yourself in the intermediary levels between levels 1 and 4.

¹⁰ Regarding these elements include the trend, not only the observation.

6

Self-diagnostic: socio-economic dimension

Summary of the socio-economic dimension

The agroecological models are directed towards remunerative markets that allow the farmers and their family and any potential workers the correct remuneration for the work provided. Today, these markets are markets either directed at the consumer, or long or short fair circuits (labelled fair-trade) on the exportation value chain.

They also encourage the local added production value by stimulating the production of inputs and the transformation of products regionally.

According to this social plan, the models mobilise mechanisms of solidarity (material or service cooperatives, communal work systems, participatory guarantee systems) to ease the workload and/or working time as well as strengthening social connections.

This stage begins by a plenary presentation of the 6 principles in the socio-economic dimension. Afterwards, subgroups launch, beginning with the game (from the farm to the table).



Game "From the farm to the table" (1hour)

The game from the farm to the table must demonstrate multiple elements or key aspects of the socio-economic dimension of agroecology by mentioning in particular:

- ▶ the number and the type of actors involved (producer, cooperative, company, intermediary, etc.)
- ▶ the knowledge of prices and margins carried out by actors
- ▶ the possibility or lack thereof of negotiating prices
- ▶ the link with the final consumer

Ideally, each group will work on a different product but one for which they know the production and marketing. Then they carry out the diagnostic of each of the principles.

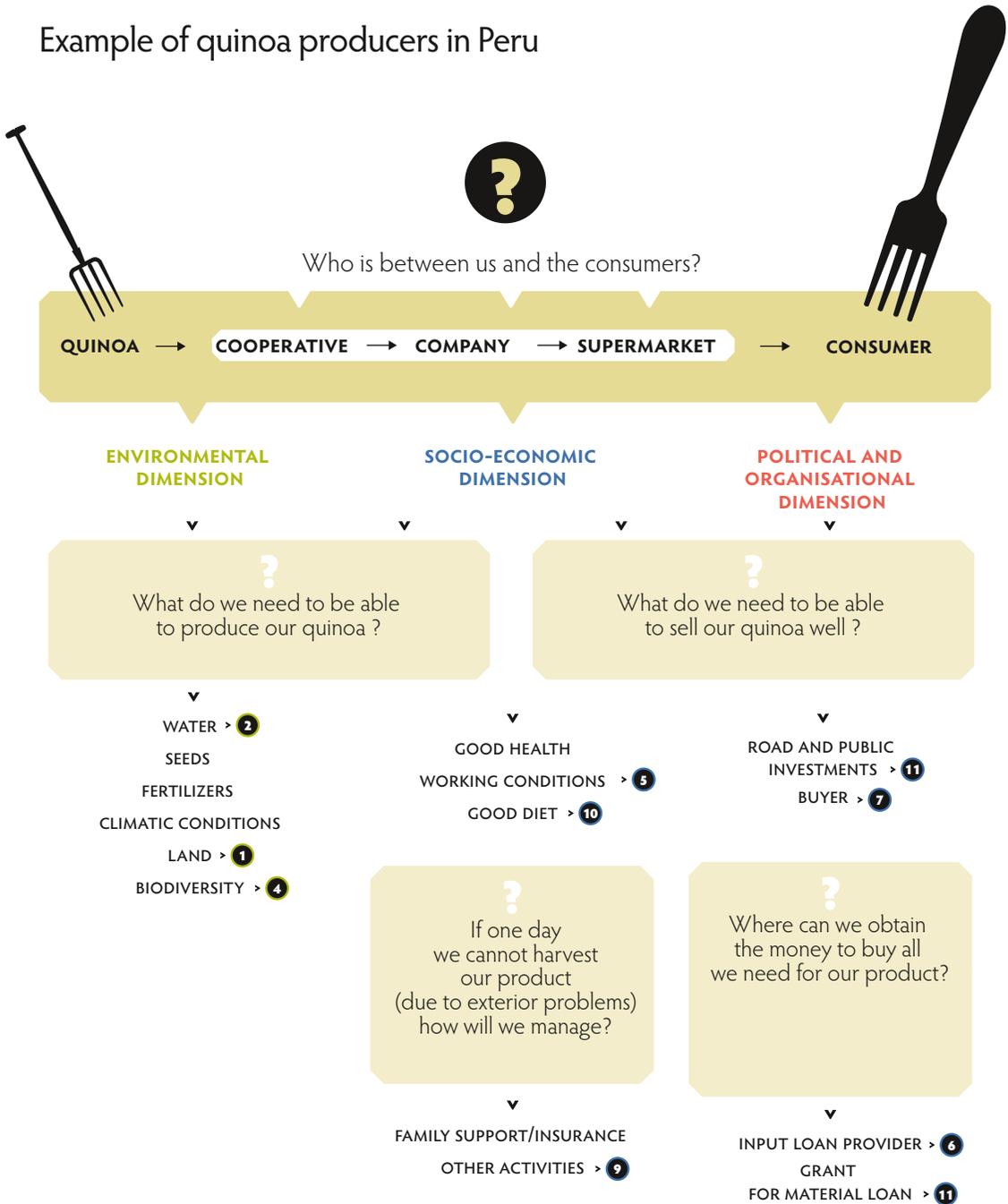
Once the trajectories have been drawn, he/she will then ask them to complete it by including the actors (farmer, transporter, industrial, exporter, group, etc.), then the inputs or the requirements for each stage (inputs, loans, tools, workforce, vehicle, etc.).

Support questions to complete the drawing:

- ▶ What do we need to be able to produce in good conditions? (seeds, tools, land, climatic conditions, health, good diet, etc.)
- ▶ Do we have providers or advisers for the inputs?
- ▶ What do we need to be able to sell our product (transport, road, client, good prices)?
- ▶ Can we borrow money? If yes, from whom?
- ▶ Who are our clients? Final consumer, or intermediary?
- ▶ Is there anyone else involved between the production and the final consumer? Who?

The facilitator will then organise a discussion regarding how the "value chain" works: are the participants generally satisfied? Do they have all the information they need? Do they have access to the necessary storage/conservation/transport infrastructures for their product? Do they consider themselves to be appropriately remunerated for their work?

Example of quinoa producers in Peru



*The numbers indicate the corresponding principle



PRINCIPLE 5

Decent working conditions and social sustainability of food and agricultural systems

For this principle, it is important to get the different point of views of men and women.

DEFINITION ► To deduce whether, for a given revenue, the working conditions (organisation, time, difficulty) of producers on one side and employees on the other, correspond with the expectations and do not create situations of exploitation with regards to local norms. This definition is of course very complex and subjective, and is more about a feeling.

ELEMENTS	EXAMPLES OF PRACTICES
CHILD LABOUR	<ul style="list-style-type: none"> • Time passed by children in the fields (every day, hours/days, during week-ends, holidays, etc.)
WORKLOAD	<ul style="list-style-type: none"> • Average hours/day for production activities: • Average hours/day for domestic activities:
DIFFICULTY OF ACTIVITIES	<ul style="list-style-type: none"> • Production activities Yes <input type="checkbox"/> No <input type="checkbox"/> • Domestic activities Yes <input type="checkbox"/> No <input type="checkbox"/>
WELLBEING/BASIC NEEDS ARE MET	<ul style="list-style-type: none"> • Diet, health • Housing (maintenance and services) • Clothing and shoes • Education • Transport • Communication • Marriages/community celebrations

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
CHILD LABOUR	Children (<12years) work at least 4hours a day in the fields.	Children (<12years) work at least 4 hours a day in the fields but only in extraordinary situations.	Children (<12years) help with some light tasks in the field and with housework.	Children (<12years) help with housework but only a light load.
DIFFICULTY AND WORKLOAD	our activities are very difficult and there is a heavy workload. We do not have time for social/cultural activities, we feel "exploited".	The majority of the activities we do are difficult.	The majority of the activities we do are not difficult.	The tasks we have are not difficult. We have a good balance between production activities, domestic activities and social activities. We are satisfied.
WELLBEING	None of our basic needs are met. The remuneration we receive is not even enough to feed ourselves.	Less than 50% of our basic needs are met.	More than 50% of our basic needs are met but less than 90%. For the rest we borrow or we do not have access.	More than 90% of our basic needs are met. We can save money and/or invest in our family and in our farm for the future.



PRINCIPLE 6

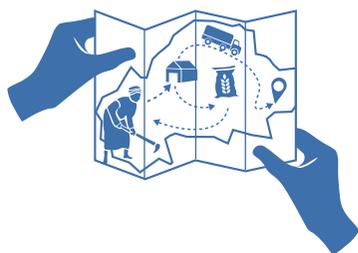
Economic sustainability of systems

For this principle, it is also important to have the specific opinions of men and women.

DEFINITION ► Economic sustainability is evident in the capacity of the system to generate revenues for the family and/or the members who contribute to its reproduction.

ELEMENTS	GENERAL IDEA	EXAMPLES OF PRACTICES
DECISION-MAKING AUTONOMY	ACCESS TO INFORMATION AND KNOWLEDGE OF THE SYSTEM	<p>Compared with all the elements that comprise economic sustainability of the system.</p> <ul style="list-style-type: none"> • Production, technical itinerary, assistance of farmers' organisation/technical services. • Marketing • Climate events • Grants • Providers, markets, clients • Levels of literacy/education • Intergenerational transmission
	CAPACITY AND FLEXIBILITY	<ul style="list-style-type: none"> • Socio-cultural context (labour margin of women in patriarchal societies) • Physical/environmental context (4,000 meters above sea-level or 300 millimeters of rain) • Economic context • Political/legal situation
FINANCING (farm-farmers' organisation)	INVESTMENTS	<ul style="list-style-type: none"> • Self-financing • Access to finances/grants (short/long term) • Level of debt

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
<p>DECISION-MAKING AUTONOMY</p>	<p>We have no access to information. The majority of decisions we make are imposed by external conditions. We have very limited flexibility.</p>	<p>We have access to certain information but they are not updated. The decisions we make are sometimes dependent on external conditions, but we have some flexibility.</p>	<p>We have access to some information. Some decisions we make are independent from external conditions. We have ample flexibility.</p>	<p>We have established systems of information. The majority of decisions we make are independent from external conditions. We have a large amount of flexibility.</p>
<p>FINANCING (Farm/farmer's organisation)</p>	<p>We do not have money nor access to credit (only in deplorable conditions with wear rates)</p>	<p>We have access to certain credit or grant but in unsuitable conditions. Our capacity for repayment is limited.</p>	<p>We have access to certain short term credit or grants in adapted conditions. We have a certain capacity for repayment.</p>	<p>We are able to (self-)finance agricultural activities (short and long term) in the "right" conditions, either with credit or with self-financing.</p>



PRINCIPLE 7

Access to markets

This principle will be diagnosed according to the products/value chains drawn before and will be analysed from the point of view of the producers and the farmers' organisation.

DEFINITION ► Looking first at the marketplaces, local or export, and their accessibility: physical access (are there roads, means of transport), intellectual access (technical/knowledge/information requirements), economic access (are you required to pay to sell?). This also requires looking at the capacity of the markets to correctly and fairly remunerate farmers bearing in mind social and environmental aspects. An organic and fair-trade export market could be more competitive than a local market, where the prices are defined by certain powerful local vendors.

ELEMENTS	GENERAL IDEA	EXAMPLES OF PRACTICES
ACCESS TO MARKETS	ACCESS TO MARKET INFORMATION	<ul style="list-style-type: none"> • information systems • Improving information on markets by farmers' organisation • Farmers' organisation actions through consultation spaces or inter-professional organisations in the sector (information coming from the same sector) • Public or private market information systems • Regional networks of market information systems
	PHYSICAL ACCESS	<ul style="list-style-type: none"> • Infrastructure (roads) • Transport • Field sale • Individual sale on a nearby market • Organisation of transport to access distant markets or buyers • The farmer's organisation buys its members' products or facilitates the concentration of offers in a single market
	ECONOMIC ACCESS	<ul style="list-style-type: none"> • Financing: existence of inventory credit system ("warrantage") facilitating access to credit storage by farmers' organisations • Farmers' organisations facilitating access to credit for members in order to improve marketing • Agricultural products exchanges • Contract farming
AUTONOMY REGARDING MARKETS	DECISION/FLEXIBILITY REGARDING QUALITY AND PRICE	<ul style="list-style-type: none"> • Quality: actions by farmers' organisations to improve product quality (specific markets, costs, prices). Labelling, niche markets • Systems of negotiation or price-fixing between sellers and buyers before the sale

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
ACCESS TO MARKETS	We do not have access to information regarding the markets. We have limited access to financing. They are physically far and difficult to access.			There are established market information systems. We know how the value chain works. We have the means to physically access markets.
AUTONOMY REGARDING MARKETS	Our products are not labelled and do not have quality recognition. We cannot decide our sale prices or control the measures (quantity/quality). We have no means to either negotiate prices or find other buyers.			Our products are either labelled or have quality recognition. We can influence our sale prices and control the measures (quantity/quality) and/or we can find other buyers.

The fact that column 2 and 3 are not completed does not mean you can only choose between 1 and 4. You must situate yourself in the intermediary levels between levels 1 and 4.



PRINCIPLE 8

Development of the rural world and short, fair distribution networks

For this principle it is firstly very important to determine the ranking system with the participants: the community itself, the zone, the region, or the country. This principle will also be analysed by the product studied by the sub-group.

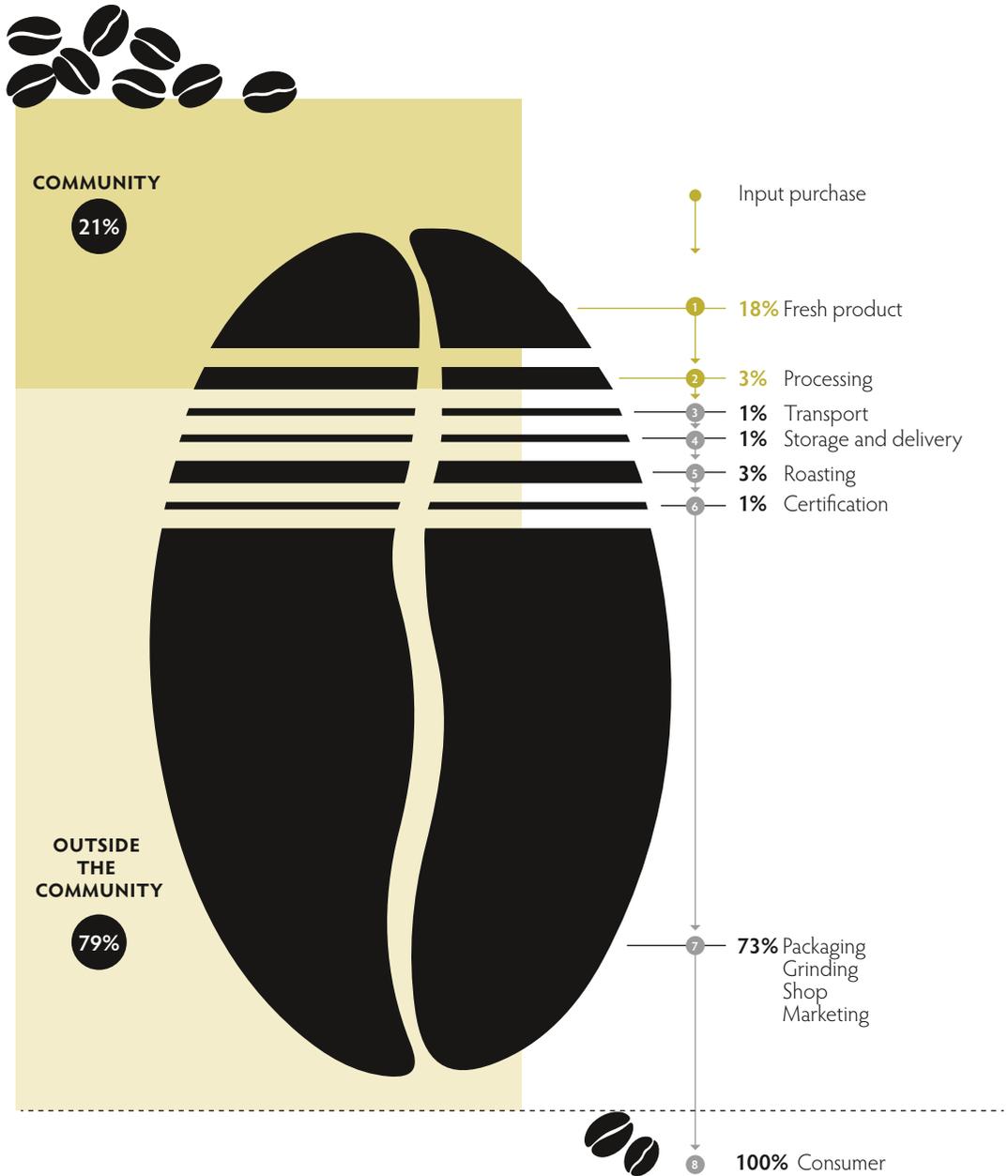
DEFINITION ► Verifying if the food and agricultural system physically creates jobs and activity in the rural world, or if it relies mostly on resources from external markets. We must look at the distribution networks, in particular their short character (few links between the producer and the consumer) with the aim of creating a certain transparency and proximity/partnership between the consumers and the producers.

ELEMENTS	EXAMPLES OF PRACTICES
INPUTS AND SERVICES	<p>Origin of inputs (pesticides, seeds, machines, advice, transport): local, regional, national, international.</p> <p>Level of transformation (fresh products, processed locally or not).</p> <p>Money is reinvested primarily in the community or outside.</p>
LEVEL OF PROCESSING	<p>Fresh products, sorting/bagging, simple local processing, external processing</p> <p>Money is reinvested primarily in the community or outside.</p>
SHORT DISTRIBUTION NETWORK	<p>Number of links in the chain</p> <p>Individual or direct collective:</p> <ul style="list-style-type: none"> • Sale at farm (kiosk, gathering, AMAP¹¹, etc.) • Sale in public markets/fairs (direct) • Sale delivered by the farm in specified locations (network delivery points) • Sale via order (Internet or other direct means) • Home delivery of boxes <p>Individual or collective with an intermediary:</p> <ul style="list-style-type: none"> • Collectives, restaurants, internet sites • Shops (retailers, boutiques, grocery shops) • Resale
CONCEPT OF FAIRNESS	<ul style="list-style-type: none"> • Price (in terms of quality and production cost) • Negotiation ability • Associative or cooperative intermediary

11 AMAP: Association for the preservation of farming agriculture (Association pour le maintien d'une agriculture paysanne)

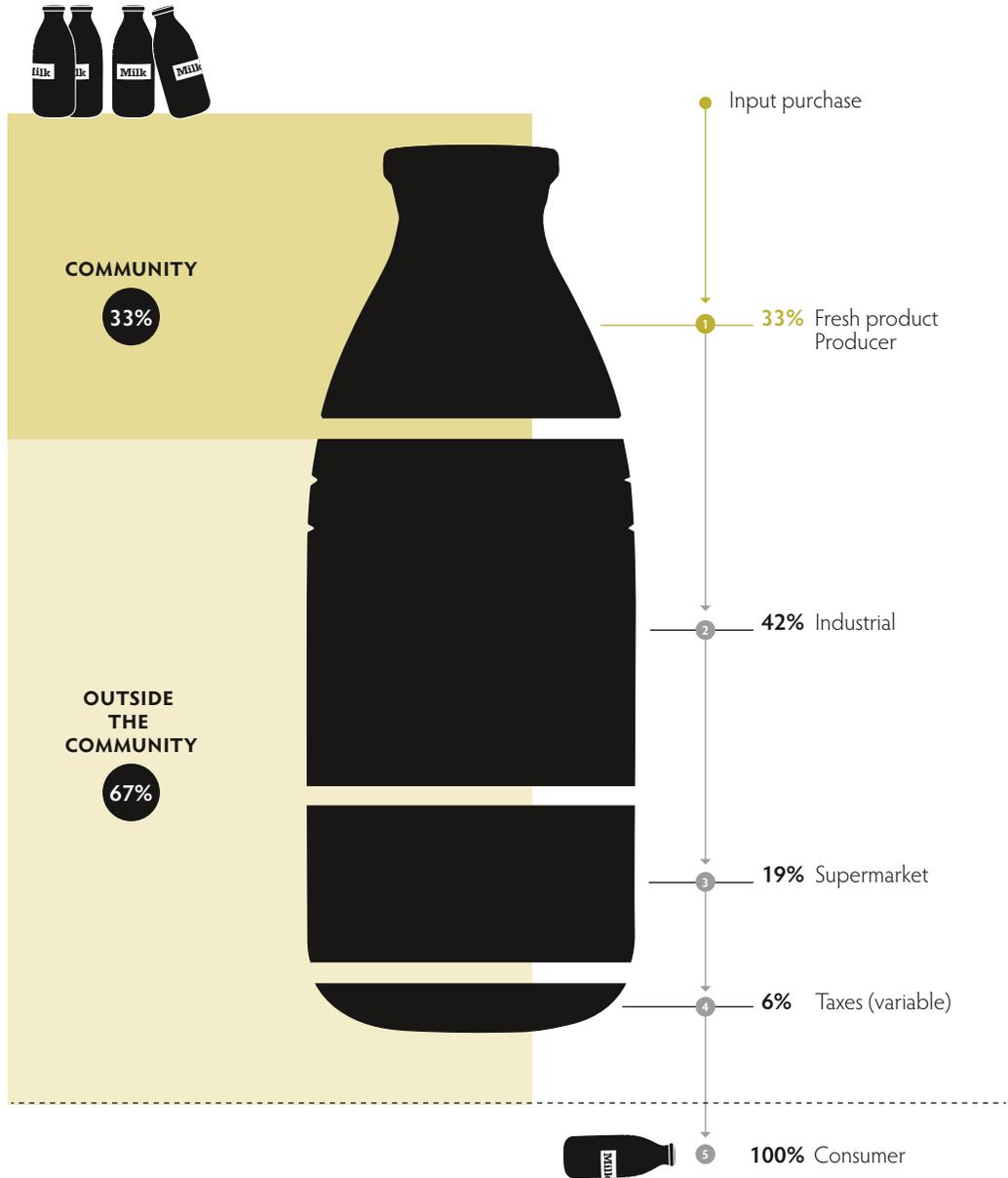
Example Coffee

Cost of sales breakdown

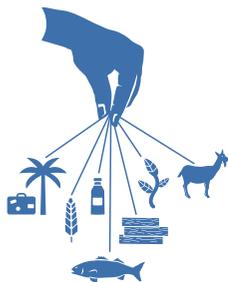


Example Milk value chain

Cost of milk: from the cow to the consumer, who earns what?



ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
INPUTS AND SERVICES	The inputs and services we purchase come from outside the community.	The majority of inputs we purchase come from outside the community.	The majority of inputs we purchase come from the community.	All the inputs we purchase come from the community.
DEGREE OF PROCESSING AND SERVICES	The product is processed outside the country.	The product is processed in the country.	The product is processed by a company in the region.	The product is processed onsite at the farm or in a small local unit.
SHORT CIRCUIT	There are more than 6 links in the chain. No client relationship, we do not know the consumers.	There are between 5-6 links in the chain.	There are 4 links in the chain.	There are 2-3 links in the chain. We know our buyer and/or the final consumers.
FAIR TRADE CONCEPT	The chain is not fair. There is neither transparency nor flexibility for negotiation regarding price or quality.	There is a certain transparency regarding quality. We cannot influence decisions in the chain.	There is a certain transparency regarding quality and price. We can to a certain degree influence decisions in the chain.	The chain is fair. There is transparency regarding price and quality. We have a certain flexibility to negotiate and influence.



PRINCIPLE 9

Diversification of incomes, resilience to crises

DEFINITION ► Looking at the level of diversification (markets, activities, incomes) particularly for families of producers and their organisation, as well as security mechanisms that allow them to be resilient to climate and economic crises that could affect them.

ELEMENTS	EXAMPLES OF PRACTICES
DIVERSIFICATION	Diversity of markets: of buyers, physical markets Diversity of crops: biofuels, plant fibres, non-conventional use of wood (wood-chip or wood pellet heating) On-farm consumption/cash crops Agriculture-livestock farming/aquaculture Diversification of activities: processing and enhancing the value of agricultural products Arts and crafts, tourism and recreation (agritourism), marketing, migration
SOLIDARITY/ SUPPORT MECHANISMS	Health insurance, tontines, agricultural insurance, farmers' organisation.

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
LEVEL OF DIVERSIFICATION	We feel very vulnerable, we have few sources of income, little possibility of changing crops/products quickly, no possibility of "external" income.	We feel quite vulnerable.	We feel quite strong: we have multiple vegetal and animal productions that we can rely on and/or we have at least one external source of income.	We feel strong: We have multiple sources of income, possibility to change crops/products quickly and "external" incomes.
SOLIDARITY/ SUPPORT MECHANISMS	Apart from family solidarity there is no support mechanism in case of "crisis" or if problems arise.	There are informal tontine plans that provide access to resources if difficulties arise.	There are formal and informal credit mechanisms or agricultural/ life insurance if difficulties arise.	As well as mechanisms there is a minimum social income that completes a family's income if difficulties arise.



PRINCIPLE 10

Healthy diet rooted in the local culture

DEFINITION ► Studying the current state and the trend regarding the degree of food diversification and its grounding in the local culture.

ELEMENTS	EXAMPLES OF PRACTICES
<p>DIVERSIFIED FOOD</p>	<p>Reminder of the various food groups:</p> <p>Grains: corn, rice, wheat, sorghum, millet and any other grain or food originating from grains (bread, noodles, porridge or other local grains)</p> <p>Root and tuber vegetables: white potatoes, white yams, white manioc or other root vegetables.</p> <p>Leafy vegetables and tuber vegetables rich in vitamin A: amaranth, spinach, pumpkin, carrots, squash or sweet potato (orange flesh) + other locally available vegetables rich in vitamin A (red pepper, for example).</p> <p>Other vegetables: other vegetables (like tomato, onion, aubergine) + other locally available vegetables</p> <p>Fruit rich in vitamin A: ripe mango, melon, apricot (fresh or dry) ripe papaya, dried peach and juice from these fruit + other locally available fruit rich in vitamin A.</p> <p>Offal: liver, kidneys, heart and other offal or non-muscular meat.</p> <p>Meat (muscular): beef, pork, lamb, goat, rabbit, venison, chicken, duck, other poultry or birds, insects.</p> <p>Eggs: chicken eggs, duck eggs, guinea fowl eggs or any other egg.</p> <p>Fish and seafood: fresh or dried fish, shellfish or crustaceans.</p> <p>Legumes, nuts and grains: beans, peas, lentils, nuts, grains or other food made from these (hummus, peanut butter, for example).</p> <p>Milk and dairy products: milk, cheese, yoghurt, or other dairy products.</p> <p>Oils and fats: oils, fats or butter added to food or used for cooking.</p> <p>Sweets: sugar, honey, soda or fruit juices containing added sugar, sugared foods such as chocolate, candy and cakes.</p>
<p>GROUNDING IN LOCAL CULTURE</p>	<p>Geographic origin of food:</p> <ul style="list-style-type: none"> • Locally grown, local recipes <p>Proportion of imported food:</p> <ul style="list-style-type: none"> • Limited to some products

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
DIVERSIFICATION	Our diet is not very diversified (<2 food groups).	Our diet is a little diversified (2 to 5 food groups).	Our diet is diversified (6 to 8 food groups).	Our diet is very diversified (more than 8 food groups).
LOCAL GROUNDING	Our diet is mostly based on imported products both processed and not (>80%).			Our diet is mostly based on local products produced by ourselves or in our region (>90%). People are aware of the importance of "local" consumption.

Regarding these elements include the trend, not only the observation.

7

Self-diagnostic: political and organisational dimension

Summary of the political and organisational dimension

The translation of this dimension occurs at an institutional level that includes a legal framework allowing the recognition and promotion of agroecology. This legal framework is replicated in transversal public policies (health/nutrition/agriculture/business) where participatory research plays a key role in encouraging the transition to agroecology. Equally, public finances are allocated to programmes or projects that encourage actors, producers, businesses, civil society and territorial communities to produce and consume in a more sustainable manner. Locally, initiatives that propose alternative models of production and consumption, inspired by agroecology, are beginning to emerge.

This stage begins with a plenary presentation of the 3 principles of the political and organisational dimension. Then, the subgroups will work on the different elements of each principle.



PRINCIPLE 11

Public policies and investments favouring agroecology

Beforehand, the facilitators should have completed some background research on public policies favouring agroecology in their country/region and should be able to present them if the participants are not aware of their existence.

DEFINITION ► From side of farmers' organisations, we must verify knowledge, degree of access and participation in the creation or modification of public policies and investments favouring agroecology, and in the research for agroecology.

ELEMENTS	EXAMPLES
PUBLIC POLICIES	<p>Type of instruments:</p> <ul style="list-style-type: none"> • Budget • Laws and decrees • Institutions (agencies, etc.) • Implementation programs <p>Examples of public policies favouring AE:</p> <ul style="list-style-type: none"> • Encouraging access to land and/or investments in projects that favour agroecology • Input control: pesticides, etc. • Subsidising more ecological practices • Consumer education programs • Establishing protected zones (biodiversity) • Investments in renewable energy • Integrated spatio-temporal management of natural resources • Participatory agroecology research programs

ELEMENTS	EXAMPLES
KNOWLEDGE OF POLICIES AND INVESTMENTS	Producers/farmers' organisations know the public policies that can support them, or not at all.
ACCESS TO INVESTMENTS	Producers/farmers' organisations can access public investments for the transition to agroecology or support their agroecological production, or not at all. These investments are: <ul style="list-style-type: none"> • state infrastructures • projects or programs (state or funders) • education information/campaigns
PARTICIPATION IN PUBLIC POLICIES	Producers have access to instances where policies (at different levels like consultation committees, sharing workshops, food advice, etc.) are discussed and they can participate in the development/modification of public policies.

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
KNOWLEDGE OF POLICIES AND INVESTMENTS	We do not know any policies or investments that favour agroecology.	We know a bit about the public policies or investments that favour agroecology.	We know more or less the public investments that favour agroecology.	We know perfectly the public policies that favour agroecology.
ACCESS TO INVESTMENTS	We do not have any access to public investments that favour agroecological practices.	We rarely access public investments that favour agroecological practices	We have occasional access to public investments that favour agroecological practices.	We have easy access to public investments that favour agroecological practices.
PARTICIPATION IN PUBLIC POLICIES	We do not have the possibility to participate in the development of public policies in our village nor on a national level. We do not have a say in system decisions (e.g. price or quality).	We participate in a limited and restrained manner, via our farmers' organisations, in consultations regarding policy aspects on a local level (village, commune) and system level (e.g. price or quality).	We participate regularly, via our farmers' organisation, in consultations regarding policy aspects on a local level (village, commune) and system level (e.g. price or quality).	We participate regularly, via our farmers' organisation, in consultations regarding policy aspects on a local and (supra)national level and we have a say in decisions that affect food and agricultural policies.



PRINCIPLE 12

Resources control by the key actors of the agricultural systems

The resources will be defined in relevance of the context.

DEFINITION ► Assuring that producers have a real level of control on the access, quality and quantity of necessary resources for the successful development of agroecosystems. This control can be partial and difficult to measure, but the general idea is to understand how farmers attempt to evolve, or not, in terms of resources.

ELEMENTS	GENERAL IDEA	EXAMPLES OF PRACTICES
LANDS (determining the current system of ownership)	ACCESS	Purchase, limitation (after having lived some time), renting, sharecropping (paying a percentage of production to owner), inheritance, illegal invasion.
	POSSESSION SECURITY	Recognition by neighbours/communities, government, laws, coercive structures.
	OWNERSHIP	Legal/informal recognition of land ownership (who can use the land, for how long and under what circumstances). <ul style="list-style-type: none"> • Private • Communal • Free access (forests, sea) • Public (state) Existence of expropriation practices. Multiple interests/uses in the same plot (agriculture, passage). Exclusive use of land. Conditions of use, control and cession (e.g. sale of land to large businesses). Right to land use/land control/inheritance.
	GENDER ASPECTS	Women's rights (access, ownership, inheritance, etc.).

WATER	ACCESS	Type of use (consumption, production, processing). Competition (other economic activities, large businesses) Storage: <ul style="list-style-type: none"> • Natural (lakes, ponds, wetlands, marshes) • Artificial (reservoir, cistern) –each type of storage has its own reliability, environmental and social cost, management.
	STABILITY	Climate (season) Source (surface, underground).
	QUALITY	Type of use (production, consumption, food processing). Cleaning practices (filtration, chlorination). Pollution (pathogens, nitrogen, heavy metals).
	MANAGEMENT	Use, distribution, allocation
SEEDS	Choice: producers can choose between a range of "brands"/species/varieties of adapted farmers and non-farmers seeds. Accessibility: producers have physical and economic access to seeds. Adaptation: available seeds are adapted to the climatic conditions and local soil.	
FORESTS/WOOD	Regulating cutting and access to the forest. Reforestation plan: village, commune and region. Control of quantities withdrawn. Taxation system (charcoal sale, etc.).	

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
LANDS	We have no access to land, no security and no means of ownership recognition. Women do not have the right to land by any means.	We have restricted access to land, little security and a weak mean of ownership recognition. Women have less rights to land and/or they are not correctly applied.	We have easy access to land, legal ownership recognition and complete security. Women have the same rights to land ownership and they are correctly applied.	We also participate in decisions concerning access to the land.
WATER	We do not have access to productive water, no storage and/or bad quality and/or unfair access between genders.	We have irregular access to productive water, no storage and/or bad quality and/or unfair access between genders.	We have regular access to drinking and irrigation water and fair access between the genders. We can store it correctly. We do not have control of its use (drilling, piping) nor of its price or quality.	We have regular access to drinking and irrigation water and fair access between genders. We have control of its use (drilling, piping) and of its price and quality. We can store it correctly.
SEEDS	We do not have the choice over our seeds (apart from our own) and/or we depend on a private supplier. They are expensive and not adapted to our climatic conditions.			We have a large choice of seeds (including locally produced farmer seeds). These seeds are economically accessible. They are well adapted to our conditions.
FORESTS/WOOD	There is no regulation and the surrounding forests are used in an uncontrolled manner.			The regulation of the forest use is respected and there is a reforestation/management plan on a village/communal level.

The fact that column 2 and 3 are not completed does not mean you can only choose between 1 and 4. You must situate yourself in the intermediary levels between levels 1 and 4.



PRINCIPLE 13

Access to knowledge and participation in participatory research schemes

DEFINITION ► Verifying if farmers' organisation members have sufficient access to knowledge and if they work with research bodies. It also involves looking at the entire research construction process to see the producers place in decisions from the choice of themes and methodologies to the use of the results. On a political level we can also see if there are structural mechanisms in place to ensure that producers are heard in situations that influence research in both the private and public sector.

ELEMENTS	GENERAL IDEA	EXAMPLES OF PRACTICES
KNOWLEDGE	ACCESS	<ul style="list-style-type: none"> • Dissemination of technical and scientific information (innovations) • Sharing within and between communities (network, application) • Education (school, professional training, etc.) • Traditional knowledge/Sharing between generations
	QUALITY/USEFULNESS	<ul style="list-style-type: none"> • Information tools • Formal education
	QUANTITY	<ul style="list-style-type: none"> • Sufficient information to be able to act accordingly
PARTICIPATORY RESEARCH SCHEME	STRUCTURAL MECHANISM	<ul style="list-style-type: none"> • Are there structural mechanisms in place to ensure that producers are heard in situations that influence research?
	STAGE OF PARTICIPATION	<ul style="list-style-type: none"> • Members of the community participate in designing the research • Members of the community approve the research motivation before it begins • Researchers use participatory research schemes • Afterwards results of the research are shared with the community
	LEVEL OF PARTICIPATION	<ul style="list-style-type: none"> • Consultation: the research defines its direction, but consults the farmers involved at the margin • Co-construction: the research encourages the community to express its strengths and worries. It encourages critical dialogue and knowledge of subjects of communal interest, as well as making "problematic" social situations visible to political decision-makers. The research themes are decided jointly between the producers and the researchers and should respond to the community's needs.

ELEMENTS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
KNOWLEDGE	<p>We don't have access to technical and scientific knowledge nor to traditional knowledge.</p> <p>Agricultural training is not very accessible and of bad quality.</p>			<p>We have access to technical and scientific knowledge through an effective extension system. Traditional knowledge are transmitted from generation to generation.</p> <p>Information we receive is useful and sufficient to act.</p>
PARTICIPATORY RESEARCH SCHEME	<p>There are no political mechanisms to determine the research themes.</p> <p>Research doesn't take into account the needs of the producers.</p> <p>Research methodology doesn't associate the members of the community.</p> <p>Results are not shared with the members of the community.</p>			<p>There are political mechanisms to determine the research themes.</p> <p>Research takes always into account the needs of the producers</p> <p>Research methodology always allows participation of the producers.</p> <p>Results are always shared with the members of the community.</p>

The fact that column 2 and 3 are not completed does not mean you can only choose between 1 and 4. You must situate yourself in the intermediary levels between levels 1 and 4.

8

Sharing and prioritising

Once the self-diagnosis is finished, the facilitation team will consolidate the results by gathering the marks from each group and carrying out an analysis by group (if relevant), by dimension and by principle.

 PARTICIPANTS	> The entire group (21-30 people)
 TIME	> 3h
 OBJECTIVES OF THIS SECTION	> Presentation of results
 HUMAN RESOURCES AND INFRASTRUCTURE	> The 3 facilitators
 REQUIRED MATERIALS	<ul style="list-style-type: none"> > A room to welcome the group > A projector/posters with information > Markers > Pens and paper

Before the sharing and prioritisation stage, the facilitators of the workshop must:

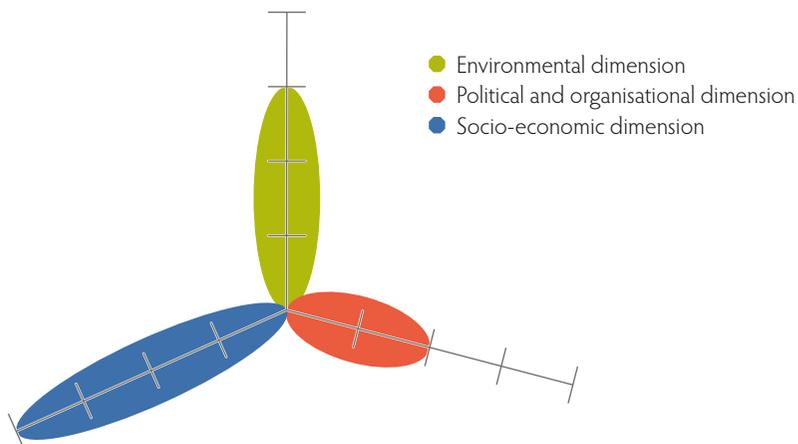
- > Summarise the given marks for each element and calculate the average for the elements of each principle, and the average for the principles of each dimension.
- > e.g. Principle 11 AE Public Policies

PRINCIPLE 11	INDIVIDUAL MARKS	AVERAGE
E1: we know the public policies	3,3,2,2,3,1,3	2.6
E2: we have access the public policies		1.9
E3: we participate the in modification of public policies		1.5
Total		2

The expected results from this workshop are:

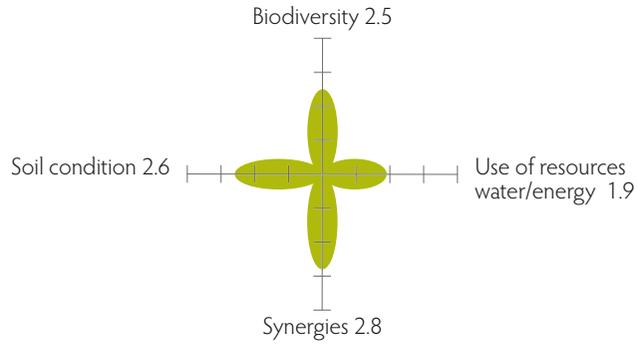
- The identification of strengths/weaknesses in each dimension and its illustration in a graphic (1 flower with 3 petals):

DIMENSIONS OF AGROECOLOGY

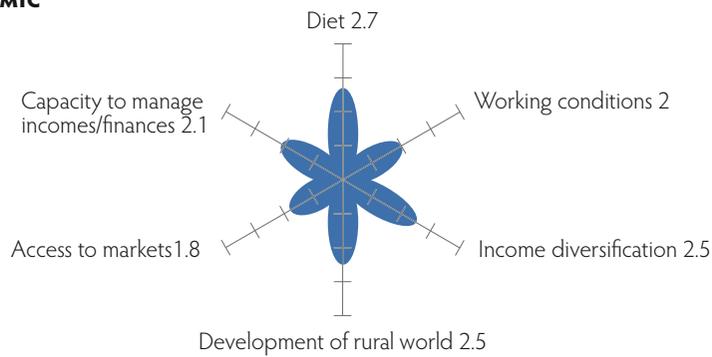


- The identification, by dimension, of each principle and its illustration in a graphic (3 flowers with multiple petals)

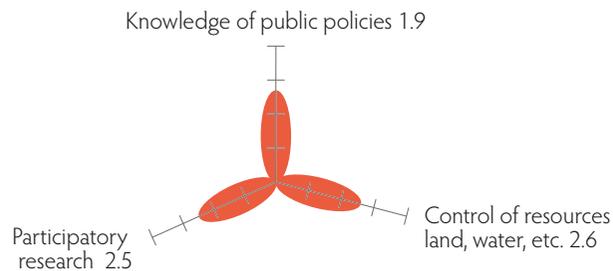
ENVIRONMENT



SOCIO-ECONOMIC

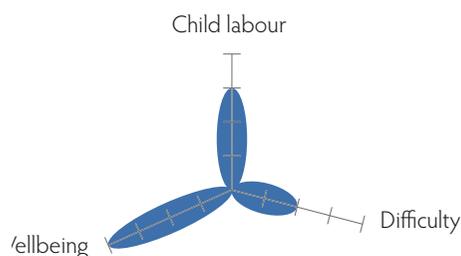


POLITICAL AND ORGANISATIONAL

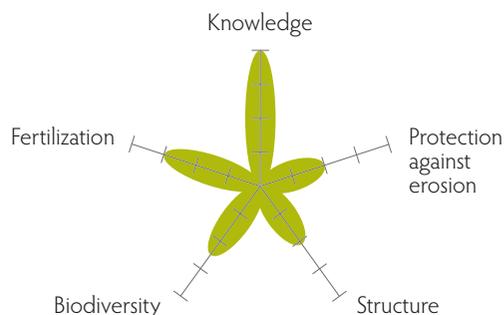


- The strengths/weaknesses by principle of each element and its illustration in a graphic (13 flowers with multiple petals):

WORKING CONDITIONS



SOIL CONDITIONS



Then analyse the results:

- First the dimensions: what are the strongest/weakest dimensions?
- Then in each of the dimensions, the principles: which seem important, which can we act on (more or less), which can we influence? Are there different results depending on the groups or gender? Are there tensions between certain principles? Are there contradictions in the results?

Conclusion of the workshop

To conclude, the facilitators must mention

- The 3 or 4 areas that seem a priority for the organisation
- The organisation's commitment to follow up these observations and to organise restitution to members
- The potential assistance required to establish a more precise plan of action

Appendices

Glossary

TERM	DEFINITION
ADDED VALUE	<p>Once a business sells a product or provides a service it is no longer the creator of all the product or service. Often a business buys primary materials, semi-finished or finished products and uses energy and services provided by others (this intermediate consumption). The business completes the production or resale using all these elements and transforming them, which requires work (workers and engineers for example) and its productive capital (for example chains of production). The business thus creates value as the value of the obtained product is greater than the sum of the value of intermediate consumption: the difference between the sale price and its product and the total value of purchased goods and services which are contained in the product (after transformation) represents the added value.</p> <p>The cost of goods and service acquisition constitute intermediate consumption: these goods and services are consumed in the production process of a good or a final service and are therefore intermediate.</p> <p>For the goods and services that are not transformed but are resold at a higher price their added value corresponds to the difference in price (commercial margin). In this case, the added value corresponds, for example, to a transport or sale (retail trade) of goods and services.</p>
AGRICULTURAL SYSTEM	<p>An agricultural system is defined as a population of individual systems that are comparable with regard to basic resources, business structure, means of existence and household constraints. According to the analysis scale, an agricultural system can concern some dozen households or several million.</p>
AGRICULTURAL VALUE CHAIN	<p>The agricultural value chain describes the activities required to lead a product from its production via different production stages (implying a succession of physical transformations and use of different services), to its distribution to final consumers, then to its destruction after use. At each stage there is an added value. We speak of an inclusive value chain when a significant part of the added value benefits the weakest economic actors (often farmers but sometimes processors).</p>

AGROBIODIVERSITY	<p>Agrobiodiversity is the result of a natural selection process and the careful selection and inventive developments of farmers, fishers and herders. Agrobiodiversity can be defined as the genetic resources for food and agriculture, and includes:</p> <ul style="list-style-type: none"> • Harvested crop varieties, livestock breeds, fish species and non-domesticated (wild) resources in the fields, forests, pastureland including products from trees wild animals hunted for food and in aquatic ecosystems • Non-harvested species in production ecosystems that support food provision, including soil micro-biota, pollinators and other insects such as bees, butterflies, earthworms, greenflies • Non-harvested species in the wider environment that support food production ecosystems (agricultural, pastoral, forest and aquatic ecosystems)
AGROECOSYSTEM	<p>An agroecosystem is an ecosystem modified by humans in order to use some of the organic matter it produces, generally for food. It is the object of study in agroecology as a scientific discipline. It is therefore arbitrarily defined as a functionally and spatially coherent agricultural unit, including the living and non-living components as well as their interactions.</p>
ALLELOPATHY	<p>Every direct/indirect or positive/negative effect of a plant on another (microorganisms included) by the liberation of biochemical compounds into the environment.</p>
AUTONOMY	<p>Autonomy is the capacity of an object, individual or system to govern itself according to its own rules. In other cases, it refers to the properties of an entity that is capable of functioning an independent manner without being controlled externally or without external input (materials, energies, etc.).</p>
BACKGROUND AND COVER MANURING	<p>Background manure is added in the autumn during plowing and is primarily composed of potassium and phosphate, and remains in place in the soil where it was buried.</p> <p>Cover manure, essentially nitrogen, is spread on the soil in spring, sometimes multiple times, and is done to provide nitrogen to the plants when they need it most.</p>
BIODIVERSITY	<p>A term that refers to the diversity of the living world on all levels: diversity of environments (ecosystems), diversity of species, genetic diversity of a species. Synonym of biological diversity. Can be considered on five levels: that of ecosystems, species, populations, individuals and genes. In the field, the second is the most accessible and is directly related to naturalist skills.</p>
BIOMASS	<p>Refers to the living vegetal mass present at any given moment in given environment.</p>
BLANKETING	<p>Technique of covering the ground to reduce growth of weeds, mostly used in market gardening.</p>

CARBON CYCLE	Carbon is one of the principal elements of the organic matter that constitute living beings. Plants take in – or “fix” – carbon dioxide during their growth either in a dissolved form in the oceans or as gas from the atmosphere. It is then either released into the air through respiration or it is sequestered for a period of time in the soil and seabed. The carbon cycle plays a key role in the greenhouse effect, naturally or unnaturally, given its influence on the concentration of CO ₂ present in gas form in the atmosphere.
DECENT WORKING CONDITIONS	Founded on the idea that work is a source of personal dignity, familial stability, peace in the community and democracy, economic growth that increases the possibility of productive employment and business development. The global aim of decent work is to effect a positive change in the lives of everyone on both national and local levels. These aims apply to all workers: men and women, employees or independents, formal or informal economies, private and public sectors and all economic activities, including manufacture, agriculture, office work, temporary work or work at home. According to the International Labour Organisation “decent work sums up the aspirations of people in their working lives” – aspirations concerning income opportunities, rights and recognition, family stability, personal development, gender equity and equality.
DEVELOPMENT	When a being or thing forms, transforms or improves in the physical sense as well as in the moral sense.
DIVERSIFICATION	Diversification is the process of a business creating or acquiring new activities or spreading them to other geographical territories. It is aimed at dividing the business risks or rather taking new risks to make the most of opportunities (real options) and, if possible, synergies (offensive diversification) or potentially offsetting profitability of activities and traditional markets (defensive diversification), and is thus a tool of reconversion. External diversification is the acquisition of other business in a different sector or located in a different geographical market. Internal diversification is launching new activities or prospecting new areas within the company.
ECONOMIC SUSTAINABILITY	Economic sustainability is expressed in the system's capacity to generate incomes for a family and/or its members who enable operation to continue long term.
ECOSYSTEM	The ecosystem is a grouping formed by a community of living beings in interrelation (biocenosis), with their environment (biotope). The components of the ecosystem develop a dense network of dependencies, energy exchanges, information and material allowing the maintenance and development of life.
FAIR	The concept of fairness calls for concepts of impartiality and justice and comes close to the concept of equal opportunities.
FERTILIZER	Organic matters (digestate, compost, etc.) or chemicals (NPK) introduced to the soil to provide nutritional elements necessary for plant growth.

FOOD SYSTEM	A food system usually encompasses all activity connected to the production, processing and consumption of food, able to affect human nutrition and health. Also "the interdependent collective of actors aimed at the satisfaction of the food needs of a consumer group."
GOVERNANCE	The set of rules and methods that organise the consideration, decision and control of the application of resources within a social entity.
INTEGRATED WATER RESOURCES MANAGEMENT (IWRM)	The Integrated Water Resources Management has most notably been promoted by the Global Water Partnership (GWP). This programme, associated with a specific method, is centred on the management of river basin levels. The IWRM is a "process which promotes the coordinated development and management of water, land and related resources in order to maximise economic social welfare in an equitable manner without compromising the sustainability of vital ecosystems and the environment."
LANDSCAPE	The landscape can be defined as the geographical space with morphological and functional characteristics similar in function to a scale or a localisation. The scale is the observer's vision (regional or local landscape). There are three elements of a landscape: abiotic, (non-living), biotic (living) and anthropic (result of human activity). The characteristics of a specific landscape are defined by all possible combinations of these elements.
LOCAL CULTURE	The combination of distinct spiritual, material, intellectual and emotional traits that characterise a society or a social group. They encompass the arts, humanities and science, lifestyles, laws, value systems, traditions and beliefs.
MARKET	The market is a geographical or social meeting place between the offer and the demand for a good or a service. The market can also be seen as the institution responsible for facilitating the conjunction of existing offers and demands on a specific market.
MINERAL MATERIAL	A mineral is usually a solid natural compound with an ordered atomic structure and a defined chemical composition. It can in most cases be described as a crystallised material characterised by its chemical compositions and the structure of its atoms according to a precise periodic structure and symmetry which is reflected in the crystal system and the mineral group.
MUNSELL SOIL COLOUR CHART	Colour is one of the most important, obvious, easy to determine and relevant morphological features for the taxonomic identification of soils. Soil colour is directly linked to solid components (organic material, texture, mineral composition, morphology). The Munsell system is a technique that allows soil colour determination.
NON-TOXIC PRODUCT	Product does not have harmful effects on the environmental (living or non-living) or human health.
OPTIMISATION	Optimise or reach an optimum production, obtain the best according to a set of criteria for a thing or a situation.

ORGANIC MATERIAL	Living and dead biomass in a cycle of decomposition/biosynthesis in which part of this material is fossilised (charcoal, petrol, gas), mineralised or recycled in ecosystems and agroecosystems.
PARTICIPATORY RESEARCH	<p>Participatory research can be defined as a driven research following an equal partnership between an academic partner (laboratory, researcher) and a civil society partner (associations, NGOs, residents' groups, etc.). The aim in this type of partnership is to produce knowledge that simultaneously constitutes a real scientific interest of the researcher and responds to needs of an associative partner. Additionally, the convergences required to implement this knowledge imply practices, a system of values and purposes that differ in part from those which are implemented in the academic research evaluated by peers as well as in industrial research evaluated by the financial returns on investment.</p> <p>Participatory research is thus one of the processes of democratising knowledge both for the purpose in which it is produced and in how it can be put to use.</p>
PLOT	Designates the agricultural division (field, pasture, vineyard, orchard, etc.) used by the same person or the same group of people.
PROFIT	Part of the added value that is meant to remunerate the capital of a business/ individual.
PUBLIC INVESTMENT	Public investments are in part made up of public spending or "collective consumption", investments considered "non-productive" and in any case as "non-market" production (road network, justice system, public lighting, public education and research, national defence, etc.) and in other parts by the subsidy of a part of the accumulation of technical capital of businesses, whether they are private or public.
PUBLIC POLICY	The intervention of an invested authority of public power and of governmental legitimacy in a specific domain of society or territory.
PUSH-PULL STRATEGY	The push-pull, also called repel-attract, is a biological control approach that consists of "hunting" the infesting insects of a main crop and "attracting" them to the perimeter of the field. This method depends on a considered layout of plants with the biological or chemical capacity to repel, attract or trap the insects, avoiding the use of artificial insecticides or GMOs.
RECYCLING	Reintroducing a product (including agricultural products) back into the cycle of production or materials that make a similar product that has reached the end of its life via a natural process, or leftovers from manufacture.
RESILIENCE	Resilience is the capacity of an ecosystem, species or an individual to recover a function or normal development after having experienced disruption.

RURAL SOCIETY	Also called rural environment, it refers to cultivated and inhabited spaces and is the opposite of cities, agglomerations or urban environment. The countryside is characterised by a low density compared with urban areas, by a predominantly vegetation landscape (fields, grasslands, forests and other natural or semi-natural spaces), by a predominantly agricultural activity, at least by the surfaces it occupies and by an economic structure more oriented around the primary sector.
SHORT CIRCUIT	A way of selling agricultural products that is done either by direct sale from the producer to the consumer, or by indirect sale, with the condition that there is only one intermediary between the farmer and the consumer.
SOCIAL ECONOMY	A branch of the economy that groups private organisations (business, cooperatives, associations, unions or foundations) that are looking to unite economic activity and social equity. Social economy organisations adhere to foundational principles such as: the search for a collective utility, the non-lucrative or limited lucrative (profits reinvested for the collective project), democratic governance (primacy of people over capital: "1 person = 1 voice", implication of stakeholders).
SOIL CONDITIONER	Product added to the soils to improve its fertility by modifying its chemical properties (lime, ammonium nitrate to reduce acidity, gypsum to reduce salinity), its structure (sand, vermiculite), or its biological properties (manure, compost, microorganisms to stimulate microbial life). Conditioners also often contain significant nutritional elements and are sometimes understood as fertilizers.
SOIL FERTILITY	The capacity of the soil to respond to physical, chemical and biological needs required for plant growth, productivity, reproduction and quality (considered in terms of human and animal wellbeing in the case of plants used as food or as fodder), in a manner that is adapted to the plant type, soil type, soil usage and climatic conditions.
SOLIDARITY	Solidarity is a social value that encourages people to offer assistance, either by moral duty or because they share common interests.
SUBSIDY	State funds that are allocated to a business/individual to support it/them.
SYNERGY	<p>Synergy is a phenomenon by which multiple agents acting together create a general effect: a synergetic effect greater than what would have been produced had the agents worked separately, whether this be each on their own concept or united but working separately. There is thus the idea of creative cooperation.</p> <p>As such, the term possesses a positive connotation, and is used to refer to a favourable result achieved when multiple elements of a system or an organisation work together. More poetically, there is a positive synergy when "the result of a common action is creative or otherwise better than the expected result from individuals."</p>

TEIKI	Teiki is a system of community-support agriculture in organic agriculture, present in Japan since the 1970s. The Teiki system emphasises the ecological aspect of agriculture before the technical aspect of sustainable agriculture. Agricultural problems are not solved by the simple fact of farms converting to organic. If we do not study larger systems of production and consumption in detail, it will be harder for the ecological movement to succeed.
TERRITORIAL FOOD SYSTEM	The collective participation of actors of a territory in the consumption of local food in their living area. This local consumption creates links and encourages product knowledge. The system allows for the appreciation of agricultural products, local know-how and local economy.
TRANSFORMATION	In the agricultural, craftsmanship, industrial sectors, transformation defines the various stages of the modification of agricultural products (animals, plants) or primary materials (minerals) in products ready to be consumed/used (for example meat and bone meal, cut meat, prepared meals, metals, etc.)
WORKING CONDITIONS	Working conditions are generally the environment in which employees live at their place of work. They include the difficulty and the risks, as well as the hours or the environment (noise, heat, exposure to toxic substances, production times or product sale, etc.). It is the combination of social, psychological, environmental, organisational and physical factors that characterises an employee's working environment.

Bibliography

- AFD, CTA et Intern-network development (2009). Access to market and commercialisation of AFD, CTA et Inter-network development (2009). Access to market and commercialisation of agricultural products: Valuing Initiatives and producers: http://www.inter-reseaux.org/IMG/pdf_version_complet.pdf

- Angarita, A., Acevedo, A., Franco, K., Mendoza, E., León, M. (2013). Participatory methodology for the diagnosis of agricultural families in the farming agricultural of the de Su- bachoque municipality - Cundinamarca. Revista Inventum. https://www.researchgate.net/publication/320983437_Metodologia_participativa_para_el_diagnostico_de_la_agricultura_familiar_en_la_red_agroecologica-ca_campesina_del_municipio_de_Subachoque_-_Cundinamarca

- CAPRU, Université de Liège (2016). Socio-economic development in a rural setting: presentation of projects aimed at creating a viable, attractive and lively territory: http://www.capru.be/sites/capru/files/etudes/rapport_complet_juin_2016.pdf

- CINU. Methodology to describe a participatory diagnostic for vulnerability and risks through workshops.

- European Commission (2012). Agricultural Markets and Small Producers.: Access instruments and risk management: https://ec.europa.eu/europeaid/sites/devco/files/study-agricultural-markets-small-scale-producers-201205_fr_5.pdf

- Economic, Social and Environmental Council of Morocco (2017). Development of rural zones.

- Challenges and perspectives: <http://www.cese.ma/Documents/PDF/Auto-saisines/2017/as29-2017-develop- pement-monde-rural/rp-as29f.pdf>

- Convention for biological diversity (2008). Biodiversity and Agriculture. Protecting biodiversity and ensuring food security. <https://www.cbd.int/doc/bioday/2008/ibd-2008-booklet-fr.pdf>

- Crole-Rees, A. (2002). Alternative perspectives on market access and agricultural exportation in southern countries: <https://journals.openedition.org/aspd/923>

- Dumont, A. (2015). Systematic analysis of working conditions and employment in vegetable production for the fresh market in the Wallonia region (Belgium), from a agroecological transition perspective: http://www.philagri.net/wp-content/uploads/2015/09/ADumont_these.print_.pdf

- Dumont, M. et al. (2016). Clarifying the socioeconomic dimensions of agroecology: between principles and practices.

- FAO (2017). Reflections on food systems and perspectives to achieve sustainability in Latin American and the Carribean.: <http://www.fao.org/3/a-i7053s.pdf>

- FAO (2016). Food storage systems. Bases for the inclusion of family farming: <http://www.fao.org/3/a-i5210s.pdf>

- Gabrinetti, M. et al. (2016). Diagnostic of working conditions ; of the perceptions, values and experiences of these said conditions for workers in the agricultural sector in Gran La Plata: http://sedici.unlp.edu.ar/bitstream/handle/10915/59704/Documento_completo__pdf?sequence=3

- Ghai, D. (2003). Decent work: concept and indicators: <http://www.ilo.org/public/french/revue/download/pdf/ghai.pdf>

- Global Water Partnership (2012). Integrated Water Resources Management (IWRM): https://www.gwp.org/fr/GWP-Afrique-Ouest/A_propos/pourquoi/La-Gestion-des-Ressources-en-Eau-GIRE/

- International Labour Organization (2003) Decent working Agriculture: http://www.ilo.org/wcmsp5/groups/public/@ed_dialogue/@actrav/documents/publication/wcms_112474.pdf

- Martínez, C. (2004). Cultural, Social and Economic Fundamentals of Agroecology: https://revistacienciassociales.ucr.ac.cr/images/revistas/RCS103_104/07MARTINEZ.pdf
- Ministry of Employment and Social Security of Spain. Diagnostic of the Situation in the Agricultural Sector. Study of the working conditions based on accident analysis.
- Lagane, J. (2013). The use of solidarity partnerships between farmers and consumers during times of crisis.: <https://journals.openedition.org/gc/2913>
- Monnet, S., Langlois, M. (2002). Participatory diagnostics in rural settings.
- Olivier, F. (2007). Producers and Consumers in the field of AMAP in Rhône-Alpes: from the relation to the networking, for which rural development?: http://miramap.org/IMG/pdf/me-moire_Olivier_fantine_2007-2.pdf
- International Labour Organisation. Decent work.: <http://www.ilo.org/global/topics/decent-work/lang--fr/index.htm>
- Platform for exchanges for the implementation of agroecology: https://osez-agroecologie.org/pratiques-agroecologiques?objectif_agro=44
- Network of farming agroecology FADEAR. Autnomy: <http://www.agriculturepaysanne.org/le-the-me-de-l-autonomie>
- Stassart, P. M., et al. (2012). Agroecology: trajectory and potential for a transition to sustainable food systems.

humundi
SOS FAIM

We cultivate a fairer world

4 rue aux Laines, B-1000 Brussels (Belgium)
T 32-(0)2-548.06.70 | info.be@sosfaim.org