REGENERATIVE AGRICULTURE FRAMEWORK

FOR FERTILE PROJECTS
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Groupe L'OCCITANE

Certified B Corporation

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FOR FERTILE PROJECTS

Introduction

This is a reference document for the L'OCCITANE Group. It lays out the aspects of regenerative agriculture (or agroecology) that the Group considers when setting up projects in agricultural ecosystems both within and outside its value chain.

The L'OCCITANE Group is committed to reducing its impact on biodiversity and the climate by supporting agroecological projects in three ways:

- **procuring raw materials:** implementing agricultural development plans in our supply chains;
- **contributing to carbon footprint neutrality**: supporting agroecological projects to capture carbon;
- **philanthropy**: supporting nature-positive regenerative projects beyond our value chains.

This reference document is designed to be used:

- as a handbook for the selection, continuous improvement and monitoring of our agroecological projects;
- as a starting point for potential collaborations with other businesses or external partners

This document constitutes Version 1 of our framework. It may evolve in the coming years using a 'test and learn' approach.

Questions and comments about this document can be sent to the Sustainability and Biodiversity team by email at **bsi@loccitane.com**.

1. Summary

Scope: Agricultural development projects based on the principles of regenerative agriculture (as defined in this document) within and outside our value chains.

Prerequisites for project implementation: Prior to the implementation of projects, a feasibility study must be carried out with particular attention to the following elements:
- Conversion of natural areas;
- Respect for human rights.

The project leader must demonstrate how these two topics are or are not applicable to the context in which the project is being carried out. If applicable, the project leader must demonstrate how the project will, at the very least, not make the situation worse, or, ideally, how the project will contribute to improving the situation (cf. point 3 : Prerequisites for project implementation).

Chapters, criteria, and performance indicators: All aspects of regenerative agriculture have been broken down into six chapters, each comprising several criteria. For each obligatory criterion, the project leader must set out a SMART[1] progress objective, explain how this will be achieved and define performance indicators and monitoring methods.

CHAPITRES ET CRITERES		CRITERE OBLIGATOIRE
1. SOIL		
1.1.	Soil health (life and fertility)	X
1.2.	Soil cover	X
1.3.	Tillage intensity	
1.4.	Erosion resistance	
2. BIODIVERSITY		
2.1.	Protecting and promoting wild biodiversity	X
2.2.	Generating agricultural biodiversity	X
3. CLIMATE		
3.1.	Reducing GHG (greenhouse gas) emissions	
3.2.	Carbon sequestration	
4. INPUTS		
4.1.	Phytosanitary products	X
4.2.	Fertilisation	X
4.3.	Autonomy of agricultural system from external inputs	
5. WATER		
5.1.	Quantitative management of irrigation water	X
5.2.	Infiltration and water retention in soil	X
5.3.	Water quality at agricultural system outlets	

[1] SMART stands for specific, measurable, achievable, relevant, and time-bound.

CHAPITRES ET CRITERES		CRITERE OBLIGATOIRE
6. SOCIOECONOMICS		
6.1.	Training farmers and technicians	X
6.2.	Technical and economic performance of agricultural systems	X
6.3.	Giving value to agroecological products in the value chain	X
6.4.	Farmers' quality of life	

2. Why regenerative agriculture ?

Definition

Regenerative agriculture, also known as agroecology, is an approach to farming which was theorised over the course of the twentieth century in response to increasing evidence of the damage done by industrial agriculture. It brings together a range of farming methods which are productive while being respectful of humans, of animals[2] and of the environment, and which help to restore damaged agricultural ecosystems and to ensure the longevity of production systems.

Regenerative agriculture draws inspiration from natural ecosystems and focuses upon species complementarity, for example through permanent soil cover[3] or agroforestry.[4] It has one main objective: to obtain fertile and functional soils by accumulating organic matter.

This generates many positive effects such as richer biodiversity, improved water retention and water use, and carbon sequestration, with a resulting positive impact on the climate, reduced reliance on inputs and better margins.[5][6]

Regenerative agriculture is not a middle ground between conventional and organic farming, but its principles may apply to either system. On conventional farms, the main result of following agroecological practices is reduced reliance on synthetic inputs, while an organic farm is likely to cut down on tilling.

Our vision of regenerative agriculture

Regenerative agriculture is, in our view, a sustainable solution to guarantee the quality of produce and the long-term viability of farming practices, to protect the environment and human health.

We regard it as an approach of continued, collective progress which must not only embrace practices and technologies that help to reduce the use of synthetic inputs, but also redefine our production systems by adapting them to ecosystems and by making them agronomically smarter.

We consider genetics to be an important issue in regenerative agriculture, particularly when generated in situ, naturally or by farmers. However, in our opinion GMOs, as produced and used today, are at odds with the principles of regenerative agriculture, especially the

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[2] Animal welfare: Dictionnaire d'agroécologie. (https://dicoagroecologie.fr/en/dictionnaire/animal-welfare/)

[3] This means maintaining crop residues on the surface and planting vegetation cover in the form of intermediate crops. Vegetation cover plays several roles, including adding structure to the soil through root systems, recycling mineral elements, and cultivating biodiversity both above and beneath the ground by acting as a place to make a den and a source of nourishment for local species. (APAD)

[4] Agroforestry encompasses production systems which integrate trees into agricultural practices and spaces, as well as those which integrate agricultural operations into forestry practices and forested spaces. (Definition from https://dicoagroecologie.fr/en/dictionnaire/agroforestry/)

[5] Soil organic cover | Conservation Agriculture | Food and Agriculture Organization of the United Nations (fao.org)

[6] IPCC, 2019: Summary for Policymakers. In: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems.

promotion of farmer autonomy, since they make farming systems even more reliant on external inputs.

Agroecological transition can only take place within the context of economic fairness and social justice. Remunerative pricing and stable commercial relationships provide those working in the agricultural industry with the financial security needed to commit to making the substantial long-term changes needed in order to move to an agroecological system. It is also essential for costly trials (of new machines, seeds or saplings, for example) to be properly funded. Economic fairness is, therefore, a branch of regenerative agriculture in its own right.

The social aspect of regenerative agriculture must also be taken into account. We believe that it is essential for regenerative agriculture to be practiced on a human scale in a spirit of innovation and exchange of ideas. Peasant and family farming thus seems to us to be a model for the future.

Regenerative agriculture provides answers to many health and environmental concerns. For this reason, we see it as a unique opportunity to develop our sense of observation, our analytical abilities and our collective intelligence: it holds the promise of a new social paradigm.

We are convinced that this approach will have a lasting effect:

- on production systems, by renewing the links between farmers and their lands;
- on value chains, by inventing new ways of working together;
- on landscapes, by bringing together farmers from the same area to work in synergy with one another to help preserve their region, and to regenerate nature and restore its environmental functions;
- on human health, by limiting exposure to chemicals and mitigating the effects of climate change.

3. Prerequisites for project implementation

Each project is unique and takes place in a specific context. Before a project is set up, it is important to study the context in which it is to take place.

Thus, with regard to the **conversion of natural ecosystems** and the **protection of human rights**, project developers must carry out the necessary preliminary studies to determine the issues at stake.

For each of these two topics, if there is a local issue, the project must not contribute to exacerbating the problem. If necessary, specific objectives should be set for these issues, along with associated indicators. Achievement of these specific objectives should be measured throughout the project, in addition to monitoring the criteria set out below.

For example: if the project sponsors identify the disappearance of a species of raptor in a given area, they should include a specific objective to help improve the habitat of that species.

4. Criteria and performance indicators

In line with the definition of regenerative agriculture given earlier, we have developed a framework that is grounded in the field experience of the Group's Sustainability and Biodiversity Department, as well as in literature reviews of frameworks[7] currently used to monitor agricultural development projects and interviews with a number of expert partners.[8]

Please note: This framework is a guide for selecting and monitoring agroecological projects, but it is not to be applied rigidly. Rather, it should be read in light of the specific issues pertaining to any given project. Qualitative analysis is therefore required for each project assessment. The relevance and/or difficulty of implementing criteria may vary widely depending on the type of project and its context.

Framework structure

This framework consists of six chapters, each comprising several criteria.

Chapters

The six chapters are as follows:

	NUMBER OF CRITERIA	OF WHICH MANDATORY CRITERIA
1. SOIL	4	2
2. BIODIVERSITY	2	2
3. CLIMATE	2	0
4. INPUTS	3	2
5. WATER	3	2
6. SOCIOECONOMICS	4	3

Criteria

A criterion may be obligatory or discretionary.

Obligatory criteria: The project must take account of the criterion. The project leader must study the relevance of the criterion in the project's context. If the criterion is applicable, they must then clarify how the project will improve the situation with regard to this criterion. This involves:

- Setting a SMART (specific, measurable, achievable, relevant, time-bound) objective for the criterion;
- Demonstrating how the objective will be achieved;
- Defining performance indicators and a method for monitoring how the situation evolves with regard to this criterion and to what extent the objectives have been achieved

Discretionary criteria: Although optional, these criteria are important when defining and evaluating projects. While it is not necessary to make a formal assessment of these criteria, a qualitative analysis of the ways in which projects might impact on them can be discussed with project leaders.

[7] Standards studied: Union for Ethical Bio Trade, TAPE (FAO), Regenerative Organic Framework, Fermes d'Avenir, Association pour le Promotion d'une Agriculture Durable, Pour Une Agriculture du Vivant, SAI (FSA), OP2B

[8] Biosphères Cabinet, Arbres et Paysage 32, Livelihood, OP2B

Some criteria may not be applicable to certain projects. If any of the obligatory criteria are not applicable to a project, project leaders must be able to provide objective evidence of this.

As underlined in the point 3 : Prerequisites for project implementation. Depending upon the project and context, certain additional criteria related to specific issues may be added to the proposed list by the project leaders.

Indicators
The baseline indicators for projects (Annex 1) are compulsory for each project.
A list of performance indicators linked to each criterion is proposed in Annex 2. There is no obligation to monitor any of the indicators in this list. For each of the applicable obligatory criteria, however, the project must incorporate a way to monitor the development of the criterion.

Definitions:

- *A **chapter** is a thematic group of criteria.*
- *A **criterion** is a principle, a reference point that allows us to judge, evaluate or define something.*
- *An **indicator** is a measuring instrument that provides information. Indicators qualify or quantify the extent to which a criterion has been satisfied.*
  An indicator must have several characteristics: It must be valid and reliable (so as to effectively measure what it is supposed to measure), but also be observable or measurable.

Example:
Building farmers' knowledge is a criterion which might belong in a chapter on social issues.
Farmers' training levels are an indicator.

Chapter 1: Soil

Two compulsory criteria: Soil health (life and fertility) and soil cover

In regenerative agriculture, a living soil is the cornerstone of an agricultural system. It has a direct impact on all the other chapters: biodiversity, climate, inputs, water, and socioeconomics.
A fundamental objective of any agroecological project must be to improve soil fertility and maintain soil life. This can be achieved by various means, among which soil cover is the most essential.

Criteria

CRITERION	WHY IS THIS CRITERION IMPORTANT?
1.1 Soil health (life and fertility)	Soil fertility is directly linked to the amount of organic matter (OM) that the soil contains and to the life that exists in it. A large amount of OM reduces the need for inputs and water and improves resistance to erosion and the carbon storage potential of the soil. Soil life has an effect on fertility and on the extent to which soil can collect and retain water. It also has a direct impact on food chains, and thus on biodiversity.
1.2. Soil cover	Soil is very sensitive to environmental stressors such as exposure to the sun and erosion from wind or rainfall. Vegetation cover, whether alive or dead, helps to protect surface soil, which contains most of the life within the soil. Moreover, soil cover helps to maintain soil fertility.
1.3. Tillage intensity	Tilling soil can revitalise crop growth but given that life is concentrated in the first few centimetres of soil, mechanically disturbing soils also disrupts their ecosystems and limits how much carbon they can store. No-till farming can be a compelling solution to this issue in certain production systems.
1.4. Erosion resistance	Erosion contributes to a loss of soil fertility, and thus to lower productivity. It also has a significant effect on levels of air and water pollution and threatens arable land, which is a non-renewable resource.

Chapter 2: Biodiversity

Two obligatory criteria: Protecting and promoting wild biodiversity and generating agricultural biodiversity

Fostering biodiversity is one of the main aims of regenerative agriculture. This is also a long-standing commitment of the L'OCCITANE Group.,
Biodiversity concerns are highly dependent upon the regions where projects are undertaken. On this matter, therefore, it is advisable to establish project-specific indicators.

Criteria

CRITERION	WHY IS THIS CRITERION IMPORTANT?
2.1. Protecting and promoting wild biodiversity	Wild biodiversity helps to maintain the ecological equilibrium of the environment. High biodiversity improves the resilience of ecosystems and of their ecological functions. In this way, it helps to preserve the necessary conditions to support human life on earth. Eroding biodiversity makes global disasters such as pandemics more likely. This criterion can be monitored by looking at indicators of means (e.g. diversity, abundance and connectivity of natural habitats on farms) or results (e.g. monitoring the population of an indicator species).
2.2. Generating agricultural biodiversity	Agricultural biodiversity plays a crucial role in the ecological equilibrium of a given production system. It offers the possibility of diversification and makes farming more resilient. It is also in constant interaction with wild biodiversity. It can be assessed at farm or plot level (rotation, species diversity), or within animal or plant populations (genetic diversity).

Chapter 3: Climate

No obligatory criteria

Limiting and eventually putting a stop to global warming is another objective behind the implementation of regenerative agriculture. Agricultural production systems can have a significant impact on greenhouse gas emissions, and on carbon sequestration in the soil and in crops.

Criteria

CRITERION	WHY IS THIS CRITERION IMPORTANT?
3.1. Reducing GHG emissions	Changing production practices can help to reduce emissions of greenhouse gases (GHGs). Examining this criterion allows us to evaluate the extent to which agroecological transition is helping to reduce global warming.
3.2. Carbon sequestration	Soils and trees are important carbon sinks, as recognised by the '4 per 1000' initiative[9]. Assessing this criterion allows us to evaluate the sequestration potential generated by agroecological transition.

Note: Although climate change is a major issue, we have not made it compulsory for projects to translate agricultural practices into GHG or carbon equivalent terms. This measure does not seem to us to be a fundamental condition for the implementation of agroecological projects for two reasons:

- The primary objective of the projects is to improve agricultural practices and support the transition of producers. Means are limited and the methodologies for translating practices into GHGs are complex. We do not wish to exclude projects that would not have the means to carry this out.
- The criteria of this document and of regenerative agriculture promote practices that should make it possible to reduce GHG emissions and to store carbon. Each project leader should ensure that a change in practices does not cause a transfer of pollution and, if there is any doubt, a carbon assessment should be carried out.

[9] The International "4 per 1000" Initiative – Soils for Food Security and Climate (4p1000.org)

Chapter 4: Inputs

Two obligatory criteria: Phytosanitary products and fertilization

Inputs make farms dependent on external economic systems. In addition, some inputs are dangerous, or are a source of pollution. We should therefore pay particular attention to them in order to assess the degree of autonomy and resilience of farming operations, on the one hand, and the pollution that farms generate, on the other.

Criteria

CRITERION	WHY IS THIS CRITERION IMPORTANT?
4.1. Phytosanitary products	Phytosanitary products can harm people and the environment. Therefore, we must seek to reduce their impact by limiting them in quantity, toxicity and spread. The use of phytosanitary products should be measured and be subject to a multi-year monitoring process. Work could also be done on the kinds of phytosanitary products used in order to substitute the pesticides that are the most toxic for the environment for other suitable alternatives.
4.2. Fertilisation	Often the primary source of GHG emissions from crop cultivation, the use of fertilisers can also be a significant source of pollution that has a negative impact upon biodiversity. Efforts should be made to minimise the dose and impact of synthetic fertilisers in the long term.
4.3. Autonomy of agricultural system from external inputs	Purchasing external inputs can render farmers dependent on global prices and on the availability of the inputs in question. It is possible to reduce this dependency by encouraging farmers to produce certain inputs themselves, by sourcing them more locally or by limiting their consumption. By input, here, we understand all kinds of inputs: phytosanitary products, fertilisers, seeds and crops, energy, water, etc., insofar as these are produced outside of the agricultural system in question.

Chapter 5: Water

Two obligatory criteria: Quantitative management of water used in agricultural systems and infiltration and water retention in soil

Climate change is causing increasingly unpredictable precipitation events, increasingly severe droughts and, conversely, heavy rainfall. Water management is and will continue to be a key element for the resilience of agricultural systems.

Criteria

CRITERION	WHY IS THIS CRITERION IMPORTANT?
5.1. Quantitative management of irrigation water	Water is a common good; we must implement practices and any necessary changes that can help to optimise its use in light of needs and availability in the local area. Water use should be monitored, and reduction targets should be set within irrigated agricultural systems.
5.2. Infiltration and water retention in soil	Improving soil structure and increasing its organic matter content improves the infiltration and retention of water in the soil. Increasing the infiltration and water storage capacity of soil is vital in the context of climate change and pressure on this resource, to make water available for plants and limit the erosive potential of the soil.
5.3. Water quality at agricultural system outlets	Agriculture affects the quality of the surface water and groundwater near farming areas. For certain projects, and in certain areas facing issues, it may be useful to monitor the quality of this water, such as that found in drainage basins, if the number of producers involved in the project is representative enough of the local area to have a visible effect.

Chapter 6: Socioeconomics

Three obligatory criteria: Training farmers and technicians, technical and economic performance, and giving value to agroecological products in the value chain

Regenerative agriculture should enable people to have a decent life. This is as true of the producer, who should be able to live off their farming activities, as it is of the consumer, who should be able to consume quality products at a fair price. Regenerative agriculture should also lead people to reconsider their preconceptions on farming and thus make it more attractive as a career option.

Criteria

CRITERION	WHY IS THIS CRITERION IMPORTANT?
6.1. Training farmers and technicians	Training in the principles of regenerative agriculture and farm management is fundamental: the success of a project highly depends on farmers' assimilation of knowledge and expertise.
6.2. Technical and economic performance of production systems	This criterion is paramount to understanding the economic viability of agricultural systems and to lay the foundations for informed dialogue in commercial negotiations. The assessment of technical and economic performance is needed in order to assess quality of life (6.4). It should also explain technical aspects and working hours and how these translate in economic terms, in the final analysis.
6.3. Giving value to agroecological products in the value chain	Whether certified or not, fair trade guarantees farmers a fair price, enabling them to invest in regenerative agriculture more comfortably. Agroecological projects must be valued at the right level in their sectors, in light of their improved quality and environmental benefits. New products generated by diversification projects must also find secure market opportunities within the framework of the projects. This requires: - undertaking market research in advance of the project; - searching for new opportunities during the project; - securing contractual commitments at the end of the project.
6.4. Farmers' quality of life	Difficult to assess objectively, quality of life is often overlooked in the farming profession given that families do not work standard hours and the boundaries between professional and personal life are often blurred. The aim is to ensure that where projects are put in place, this criterion does not deteriorate, and ideally improves. This criterion should be assessed in terms of: - payment : the revenue of the farm should be measured in comparison to the local living wage. - leisure time - security - social integration

Appendices

Annex 1: Baseline indicators for projects

These indicators must be reported at the beginning of a project and throughout its implementation.

INDICATOR	UNIT
Number of crops represented in the project ***of which the number of crops purchased by L'OCCITANE***	*no. supply chains*
Number of producers involved in the project ***of which the number of producers associated with L'OCCITANE purchases***	*no. producers*
Number and type of stakeholders involved in the project (other than producers)	*no. stakeholders*
Volume of agricultural production per crop in the project ***of which the volume purchased by L'OCCITANE*** ***of which volume under guaranteed contract***	*kg of produce*
Total surface area represented by the project ***of which surface area represented by L'OCCITANE purchases***	*ha*
€ invested in the project ***of which € from L'OCCITANE***	*k€*
Duration of the project	*years*

Annex 2: Proposed list of indicators

The following tables present examples of possible indicators to monitor in relation to each criterion in each chapter.

There is no obligation to monitor any of these indicators. For each of the obligatory criteria, however, the project leader is required to monitor tangible indicators in order to report on how far the criterion has been taken into account in the course of the project and how the project has progressed in relation to its target.

The robustness of the indicators proposed by the project leader and their pertinence to the local context of specific projects will be assessed on a case-by-case basis.

The obligatory criteria appear in yellow.

<table>
<tr><td colspan="3">CHAPTER 1: SOIL</td></tr>
<tr><td>CRITERION</td><td>INDICATOR</td><td>UNIT OF MEASURE</td></tr>
<tr><td rowspan="7">1.1. Soil health (life and fertility)</td><td>Number and diversity of earthworm species present</td><td>no. per unit of volume or area</td></tr>
<tr><td colspan="2"><u>Comment</u>
We recommend this easy-to-follow and scientifically robust indicator.

Methods:
- Spade Test: This will not indicate the presence of anecic worms.
- Mustard Test: If mustard reaches a depth of 40-50 cm, the worms will come up and all species will be counted.

Results: The following thresholds help us to analyse the healthiness of the soil.
- Spade Test:
<table>
<tr><td>Number of earthworms</td><td>Results</td></tr>
<tr><td>0</td><td>Absent</td></tr>
<tr><td>1 to 3</td><td>Low</td></tr>
<tr><td>4 to 8</td><td>Improving</td></tr>
<tr><td>> 8</td><td>Satisfactory</td></tr>
</table>
- Mustard Test:

Satisfactory level: 150 worms per m²
N.B.: These results thresholds should be considered in relation to the location of the project. They vary according to different biomes.</td></tr>
<tr><td>Amount of organic matter per hectare and how this evolves over time</td><td>qty OM/ha</td></tr>
<tr><td colspan="2"><u>Comment</u>
Method: Laboratory soil analysis
N.B.: Difficult to implement in countries that have few or no analytical laboratories

Possible interpretation biases:
- The nature of the soil has a significant influence on the results obtained (regardless of the practices put in place).
- It can take time for indicators to evolve after the implementation of good or harmful practices.
- It can be difficult to improve the amount of organic matter in tropical latitudes, despite the implementation of good practices, because soil mineralization is quick and significant in these climates.</td></tr>
<tr><td>Microbial biomass of the soil</td><td>kg of biomass/ kg of earth</td></tr>
<tr><td>Microbial diversity of the soil</td><td>no. taxa/kg of earth</td></tr>
<tr><td>Agricultural area integrating at least one legume (as crop or as coverage) into its crop rotation</td><td>ha</td></tr>
</table>

CHAPTER 1: SOIL		
CRITERION	**INDICATOR**	**UNIT OF MEASURE**
1.2. Soil cover	**Duration of soil cover and/or extent of soil coverage**	*no. days/year*
	Comment *Soil cover can be assessed in two dimensions: time (number of days the soil is covered) and space (% of area covered).* *Definition of soil cover: The quality of the cover must be assessed by each project. It must be possible to set a minimum threshold of development/presence of cover at which the soil is considered as covered and below which it is considered as bare. This quality of the cover must be assessed in terms of:* - *stage of development of the plants making up the plant cover (in the case of live ground cover) assessed via plant height, for example;* - *germination density of the plants in the plant cover (in the case of live ground cover) and associated % cover per m²;* - *biomass cover per m² – assessed by biomass weight, for example.* *Methods:* - *via satellite, 3 or 4 times a year: Sentinel 2 (10m resolution, free); Google Earth (30m resolution, free or 10m, professional version);* - *field monitoring (weighing of biomass, height of cover, % cover per m², etc.);* - *NDVI (Normalized Difference Vegetation Index).* *Results: The objectives to be set in terms of minimum duration/minimum cover rate depend on each context and geographical area. They must be set by the project leader taking local context into account.*	
1.3. Tillage intensity	**Agricultural area worked only through no-till farming**	*ha*
	Comment *The following reference documents have incorporated this type of indicator:* - *Regeneration index of the association Pour une Agriculture du Vivant;* - *Au Cœur des Sols (At the Heart of Soil) label from the APAD (Association for the Promotion of Sustainable Agriculture).*	
1.4. Erosion resistance	**Soil structure**	*slake test*
	Comment *Public data sheets on the slake test: [PNR du Verdon]*	

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CHAPTER 2: BIODIVERSITY		
CRITERION	**INDICATOR**	**UNIT OF MEASURE**
2.1. Protecting and promoting wild biodiversity	**Surface area of natural habitats on farmland** **Diversity of EFAs or agroecological infrastructures found on farmland** **Connectivity of EFAs or agroecological infrastructures present on the farm**	*m^2/ha* *no. EFAs or agroecological infrastructures/ha* *% EFAs or agroecological infrastructures*
	Comment *These habitat indicators show the level of support for wild biodiversity on farms. It is important to monitor three parameters with regard to this notion of habitats: their abundance, their diversity and their connectivity (ecological network).* *The notions of EFA and agroecological infrastructures are sometimes officially defined:* - *EFAs (Ecological Focus Areas): these are defined in the European Common Agricultural Policy: Source (Notice TéléPac)* - *agroecological infrastructures: these are defined in several references, such as the Manuel d'utilisation DIALECTE Définition des Infrastructures Agro-Écologiques (IAE) (DIALECTE User Manual, Definition of Agroecological Infrastructures) by Solagro (October 2011): Source*	
	Area of degraded land converted into refuges for biodiversity/ area of land dedicated to the restoration of natural habitats	*ha*
	Number of biodiversity inspections and population inventories undertaken and results **Number of changes made in response to the results of biodiversity inspections and inventories**	*no. actions*
	Comment *These indicators are more complex to monitor but are outcome indicators.* *In some contexts, it may be interesting to select 'umbrella' species (representative of the quality of the ecosystem and/or an indicator of the presence of other species) and to monitor their population trends.* *A biodiversity test may sometimes be required to identify the species present and the biodiversity issues specific to areas of cultivation.*	
	Average surface area of agricultural plots	*ha*
	Average number of melliferous crop species per hectare and per rotation (including crops and covers)	*no. species*
	Number of trees planted (and variety of species)	*no. trees*

CHAPTER 2: BIODIVERSITY		
CRITERION	**INDICATOR**	**UNIT OF MEASURE**
2.2. Generating agricultural biodiversity	**Area of farmland occupied by an intra-plot agroforestry project (and density of trees and variety of species)**	*ha or lm of rows of trees*
	Number of plant species per hectare and per rotation (crops and covers) or in total on the farm	*no. species*
	Comment *Consideration must be given to both the spatial and temporal diversity of crop rotation.*	
	Surface area where seeds or plants that come from different population varieties have been planted	*ha*
	Number of producers being assisted with the transition to organic farming (and overall quantity of matter that this represents)	*no. producers (kg of produce)*

CHAPTER 3: CLIMATE		
CRITERION	**INDICATOR**	**UNIT OF MEASURE**
3.1. Reducing GHG emissions	**Carbon footprint (emissions)**	*qty CO2eq/kg of produce*
3.2. Carbon sequestration	**Equivalent in tonnes of carbon sequestered in soils and/or trees**	*qty CO2eq/kg of produce*

CHAPTER 4: INPUTS		
CRITERION	**INDICATOR**	**UNIT OF MEASURE**
4.1. Phytosanitary products	**Monitoring an indicator of phytosanitary product use: EIQ and/or TFI and/or level of active substance(s) (AS) and/or number of applications**	*No unit* *qty AS/kg* *no. applications/ ha*
	Comment *Producers involved in the project must set out objectives on reducing the dose of phytosanitary products applied at the beginning of the project, taking account of the specific local context.*	
	Monitoring types of phytosanitary products used and the implementation of a blacklist of certain products, banning the use of the most toxic and ecotoxic products	*list*
	Using alternative practices to those using conventional phytosanitary products	*list*
	Number of organic producers or organically farmed land or those being assisted with the transition to organic farming (and overall quantity of matter that this represents)	*no. producers or ha*
4.2. Fertilisation	**Nitrogen use efficiency (NUE)**	*kg of nitrogen/kg of product*
	Comment *Various means can be used to optimise this parameter. Example: strategies for splitting inputs etc.*	
	Using alternative practices to those using synthetic fertilisers	*list*
	Comment *Example: using cover crops including legumes etc.*	
	Ratio of organic fertilisers/synthetic fertilisers used	*%*
4.3. Autonomy of agricultural system from external inputs	**Ratio of the cost of external inputs/revenue from farming or** **Ratio of the use of external inputs/total production**	*% revenue*
	Comment: *External inputs include: phytosanitary products, fertilisers, energy, seeds and/or plants, water, etc.*	

CHAPTER 5: WATER		
CRITERION	**INDICATOR**	**UNIT OF MEASURE**
5.1. Quantitative management of irrigation water	**Volume of irrigation water used per kg of produce**	*m^3 of water/kg of produce*
	Source of irrigation water	*type of source*
	Implementation of integrated water management practices - **use of tensiometers** - **rainwater harvesting** - **etc.**	*list*
5.2. Infiltration and water retention in soil	**Soil permeability (Beerkan test)**	*mm of water/s*
	Comment Source	
	Water retention capacity of soil	*mm of water/cm depth of soil*
	Observing/counting pores and soil structure via the spade test	*no. pores/spade of soil*
5.3. Water quality at agricultural system outlets	**Levels of pollutants (nitrates, BOD, etc.) in surface waterways in the areas around farmland and/or in groundwater**	*g of pollutants/L of water*
	Water turbidity in surface waterways in the areas around farmland	*NTU*

CHAPTER 6: SOCIOECONOMICS		
CRITERION	**INDICATOR**	**UNIT OF MEASURE**
6.1. Training farmers and technicians	**Number of training programmes put in place and number of people trained**	*no. training sessions/year*
	Comment *Particular attention will be paid to the quality and content of the training offered.*	
6.2. Technical and economic performance of agricultural systems	**Yield of the primary crop (and how this evolves over time)**	*kg/ a*
	Efficiency of work time	*no. work hours/kg of produce*
	Calculation of production costs and extent of producers' knowledge of production costs	*€/kg - €/ha*
	% increase in farmers' net revenue	*%*
	% agricultural revenue from diversifying productions	*%*
6.3. Giving value to agroecological products in the value chain	**Products under a fair trade contract** **Supply chains being assisted towards fair trade**	*% sales coming from fair trade contracts;* *no. fair trade contracts*
	Number of products from the diversification under contract at the end of the project	*no.*
	Existence and size of premium attached to the purchase of the primary product of the project	*no.*
6.4. Farmers' quality of life	**Leave taken by farmers**	*no. days/ year*
	Work hours	*no. hours/ week*
	Living Standard	*living income*
	Comment *Example of a methodology for calculating a decent standard of living: Anker & Anker..*	