



Agroecology in France

CHANGING PRODUCTION MODELS TO COMBINE ECONOMIC AND ENVIRONMENTAL PERFORMANCE

Agriculture around the world today faces multiple challenges and is obliged to change and adapt in response to them. Going forward, agriculture must move beyond conflicting views on growth models and ensure changes in agriculture and the agricultural and food-processing industries are part of a forward-looking approach.

France launched its agroecology project in response to these issues in 2012. This is an ambitious, inspirational project that aims to shift agriculture towards the objective of combining economic, environmental and social performance. It has given rise to a wide-ranging action plan, broken down into a variety of projects covering all areas (teaching, support for farmers, reorientation of public support, public and private research, etc.). The project is a joint development between the French Ministry of Agriculture and all key players in the sector.

The aim is for the majority of French farms to be committed to agroecology by 2025.



An ambitious action plan

The agroecology project launched in 2012 aims to make France a global leader in the sector. It is being implemented in the form of an ambitious action plan covering all areas. The plan places particular emphasis on the following areas.

Training for farmers

Training programmes and educational frameworks are being adapted to include agroecology-related knowledge and teaching more effectively. A programme to provide training for teachers in these areas is being implemented.

Mobilisation of research and research & development

Research and research & development organisations are being encouraged to develop their research and experiments on agroecological production systems and to disseminate innovations in the field, with a particular emphasis on the use of the European Innovation Partnership (a new measure under the CAP for 2014-2020).

Creation of an agroecological self-assessment tool

A self-assessment tool is being developed and will be made available to partners from early 2015. This has been designed to encourage farmers to reflect on their practices and possible changes to their system. It will allow individual farmers to measure their practices and compare them with those of other farmers.

Renewal of public support

Public support for agriculture is gradually being reviewed so that it incentivises commitment to agroecology. Investment subsidies, for example, are being geared to agroecological development projects on farms. Support for transition to agroecological systems is being implemented (agro-environmental measures).

Implementation of regular monitoring and evaluation

The results and impact of the action plan will be included in an annual report. Indicators will be used to monitor the progress made.



Joint development with all partners

The agroecology project is designed to inspire and encourage all key players to participate.

► **at a national level, the project is run by a committee made up of the French Ministry of Agriculture and key partners in the sector**, including other public administrative bodies, agricultural trade unions, research organisations, agricultural development networks, non-governmental organisations (NGOs) working in environmental protection, networks of food processing businesses, etc.

► **the project is being rolled out at a regional level to reflect the specific context in each area**. Regional stakeholders commit voluntarily to the actions they want to help implement. The agroecology project is therefore not a 'top down' instruction from the administrative authorities but a framework in which different stakeholders engage in the way that suits them.

► **the project is based on the work done by pioneering agroecological farmers**.

These pioneers are driving innovation and new approaches and their experience has demonstrated the relevance and legitimacy of a project of this kind. Their tangible experiences and the solutions they have found for their particular situation are

accessible to their peers through encouraging discussions on practices, meetings and various methods of dissemination. New provisions have been introduced into French legislation to encourage collective projects by groups of farmers and to publicise innovations.

► **the project covers all sectors**.

The shift in production methods towards more effective systems based on agroecological principles affects not only farmers but all downstream stakeholders in the food processing industries. These are changing their logistics organisation, marketing methods, sales channels and so on to accompany the changes (for example, by developing new outlets that reflect new products created by diversifying rotation patterns).

► **the agroecology project is based on agricultural diversity**.

The questions raised by agroecology are being asked on all farms. The answers found, however, need to be appropriate to each specific situation. The agroecology project does not advocate a single response, recipe or standard that everyone should apply.

Innovative, modern, competitive agriculture

The agroecology project is based on the trials and innovations that have been developed on the operation of agricultural ecosystems, by helping farmers to take back responsibility and enable them to improve their economic and environmental performance.

Agroecology relies on a process of systematic reflection that covers all aspects of the farm. This helps to build synergies within the farm and optimise its operation. The potential economic and environmental gains (savings on inputs, better management of soil fertility, increased resilience to unforeseen events, etc.) are significant.

Training and support for farmers are therefore of central importance: agroecology is based on increasing farmers' skills in managing the agricultural ecosystem their farm represents.

Innovation is also central to the agroecology project's action plan. This is not about setting systems and practices in stone but innovating continuously in both agronomic and organisational terms. For example, criteria for measuring the performance of varieties sold are being revised in order to reflect their performance in different contexts more accurately (such as cultivation with a low level of inputs). This helps to encourage progress in genetic selection to improve both economic and environmental performance.

Agroecological production systems focus on farms as autonomous entities and improving their productivity and competitiveness by reducing the consumption of inputs. As a coherent set of innovative cultivation practices, agroecology is highly successful at creating employment and added value. It provides ongoing support for the social fabric of rural areas and encourages collective approaches.

Main drivers of agroecology

Agroecology is based on a systematic approach to the farm (an overall reflection incorporating all aspects of the farm at the same time). There is no single recipe or set of specifications, but individual solutions that need to be developed for each specific context, based on a set of common principles.

Agroecological systems are based primarily on fostering positive biological interactions within the agricultural ecosystem. Encouraging functional biodiversity (using hedges and grass strips, etc.) and appropriate crop rotations, for example, will help to encourage natural regulation of populations to manage bioaggressors or encourage seed predation to avoid adventitious crops.

Agroecology also seeks, where possible, to complete bio- and geochemical cycles (water, nitrogen, etc.) by supporting the farm's autonomy and resilience. This, for example, involves working on crop rotations as well as cover between crops, reducing dependence on inputs and creating the right conditions for soil fertility. Developing synergies between livestock farming and crops, for example, helps to reduce reliance on synthetic chemical fertilisers whilst managing organic effluents, and at the same time, reduce dependence on fluctuations in production costs by consuming some production on the farm itself.

As a result, the two main principles underlying agroecology give the system a number of characteristics that help it to improve its sustainability and increase its resilience. By diversifying income sources, it also improves farmers' economic resilience and supports local development. This integrated approach to economic and environmental issues supports efficient management of natural resources.





The French agroecology project reflects the concerns found elsewhere in the world

Global agriculture faces numerous challenges :

- ▶ **THE CHALLENGE OF FOOD AND NUTRITIONAL SECURITY** – providing high-quality, safe and healthy products to over nine billion people by 2050 ;
- ▶ **THE SOCIAL CHALLENGE** of combating both poverty in the agricultural world and the rural exodus, and increasing the resilience of production systems to unforeseen events ;
- ▶ **THE ENVIRONMENTAL CHALLENGE** of conserving resources and responding to the issues of climate change.

In order to achieve this, various forms of agriculture need to maintain and even increase their productivity whilst conserving natural resources. Environmental considerations must therefore become a factor in competitiveness. Agroecology is one response to the challenges facing agriculture.

International mobilisation to encourage stakeholders to share their experiences and support the development of agroecological systems should be encouraged.

The FAO's launch of a three-year (2014-2017) work programme on agroecology – including an international symposium, regional workshops and an international conference in 2017 – is a key part of this approach. This initiative should help disseminate scientific knowledge and practical experiences of agroecology to encourage scientifically based, open dialogue. This dialogue can operate at a regional level, mobilising national and local players who wish to be involved and based on particular issues and individual points of interest (such as problems of antibiotic resistance, soil erosion, the health of users of plant health products, and so on).

