



Report

***LIFT research project
Webinar on ecological agriculture in Ile-et-Vilaine, France
November 26, 2020
organized by INRAE and VetAgro Sup***

1. Presentation of the LIFT project

The LIFT project (acronym for "Low-Input Farming and Territories") is a research project funded by the European Commission with a budget of 5 million Euros as part of the Horizon 2020 program (H2020). It started in May 2018 and will end in April 2022.

The project, coordinated by Laure Latruffe (INRAE), is implemented by 17 teams in 13 European Union countries. In France, the participating researchers belong to research units SMART-LERECO in Rennes, CESAER in Dijon, Territoires in Clermont-Ferrand and GREThA in Bordeaux.

The objectives of the LIFT project are:

- Understand how socio-economic and political factors influence the development of ecological agriculture;
- Evaluate the performance and sustainability of this type of agriculture in economic (income and employment), environmental (pollution, biodiversity, landscape) and social (working conditions) terms;
- Propose novel private arrangements and public policy instruments to promote the development of ecological agriculture.

The LIFT project takes into account different agricultural systems and different scales (farm, group of farms and territory level).

"Ecological" approaches in the LIFT project are defined as environmentally friendly and/or low-input practices. No particular type of agriculture is privileged in particular, i.e. the LIFT project covers a continuum from the least ecological (most conventional) to the most ecological type. Existing nomenclatures, such as, for example, organic, agro-ecological, integrated agriculture, are used. In addition, new ecological types are created according to the degree of ecological practices (number of practices, level of intensity) with the aim of comparing these different types.

The project includes about thirty case studies in the European Union, geographically defined (country, region, sub-region, catchment area, employment area, municipality...) and covering all agricultural productions and various contexts. The case studies in France are Ile-et-Vilaine (pig farming, dairy farming), Sarthe (field crops, mixed farming) and Puy-de-Dôme (beef cattle, dairy cattle, sheep, field crops).

The project is based on existing data (information on agricultural practices, accounting and structural data at farm level, territorial data), but also produces new information through a survey of 1,500 farmers in 18 case studies, qualitative interviews of farmers and other stakeholders, and round tables with local stakeholders.

Surveys to stakeholders, carried out in fall 2020 and whose results were presented during this webinar, were intended to help us conduct an analysis at the territorial level on the following question: **Can ecological agriculture contribute to achieving sustainability objectives in a territory?**

More specifically, three opinion surveys were conducted to agricultural stakeholders in Ille-et-Vilaine, and the results and discussion during the webinar (in which six of the survey respondents participated) are described below. Two surveys focused on the **socio-economic impacts of ecological agriculture** (section 2), and a survey on **sustainability objectives that will serve as a basis for an analysis of levers** (section 3).

2. What are the socio-economic impacts of ecological agriculture in Ille-et-Vilaine?

2.1. Presentation of the results of two opinion surveys

The context given to the participants of the two surveys presented below was: to imagine the impacts, on the economy of Ille-et-Vilaine (a NUTS3-region in France), within ten years, of a more or less important, and more or less spread (or grouped in groups of farms, what we call "clusters") adoption of ecological agricultural practices, and in comparison with the current agricultural situation in the region. The two surveys were aimed at respondents from the agricultural value chain (industry, teaching and research, local government...), with a thorough knowledge of agriculture in Ille-et-Vilaine.

2.1.1. Survey with ranking of statements

This first survey consisted of ranking 26 statements in a pyramid-shaped grid into a continuum from the highest to the lowest likelihood of occurrence within ten years. This survey method, the "Q Methodology", is used to identify different profiles based on the ranking choice, i.e. to identify groups of respondents who chose a similar response pattern. **In the case of our survey on the socio-economic impacts of ecological agriculture in Ille-et-Vilaine, we were able to distinguish the following three groups** among the 14 respondents.

- The first group would rather envisage a scenario of break with current production systems: a strong transition to ecological agriculture and a strong local anchoring (strong consumer demand for local products, more locally sourced inputs, little use of migrant labour). Farmers in this scenario would need skills in new areas requiring more specialized employees rather than family labour and would have improved working conditions (modernization of equipment, new technologies).
- The second group would also imagine a scenario of evolution of current production systems, but this time seen through the prism of the benefits of ecological agriculture without quantifying the degree of adoption: a more economically resilient agriculture supported by a new, stricter certification and providing important ecosystem services (water, soil, hedgerows). Farmers in this scenario would have more varied tasks, requiring new skills, and would be closely linked to other ecological farms.
- The third group would rather consider a scenario of evolution of the current production systems without really going in the direction of an ecological transition: a maintenance of the 10% of ecological agriculture already reached in the region, farms that create jobs (increased demand for migrant and seasonal workers, but reduction of the family workforce) and require more skills, probably to increase labour productivity with new activities.

2.1.2. Survey with open-ended questions in three rounds

This second survey was complementary to the first survey described above, and sought to reach a consensus among the different stakeholders of the expert panel. The questions were open-ended and the survey was conducted in three rounds, using the "Delphi method". After each round, respondents received a summary of anonymized responses from all respondents (ten in total).

The first round focused on the characteristics of an environmentally friendly farm. The questions in the second and third rounds, which were identical, focused on the socio-economic impacts of ecological farming.

The first two questions sought expert opinion on the most likely scenario for the adoption of ecological practices in Ille-et-Vilaine, in terms of adoption rates and spatial distribution. The next questions addressed the impacts of adopting ecological production systems on the following themes: employment structure (part-time, number of employees, etc.), the proportion of women among farm heads, the need for skilled labour, wages, the need for migrant labour, contract farming, the purchase of tractors and other agricultural equipment, supply chains, the rural environment (population, real estate and services), the quality of life of farmers, farm advisory services, institutions, actors in the food chain and relationships between farmers.

Concerning the most likely scenario, according to the majority of respondents, in Ille-et-Vilaine the adoption rate would be rather high, with a spatial distribution rather in clusters. The consensus would seem to be in favour of a high adoption rate - but rather around 20-30% rather than 50% - in clusters, and a lower rate in the rest of the region.

On other issues, experts agree that these ecological systems are more complex compared to conventional systems, and therefore require farmers, agricultural advisers and local government to adopt a more systemic approach. However, the experts do not envisage a radical change in the sector (e.g. presence of the same agricultural equipment sellers, use of existing supply chains), but rather an adaptation of all actors involved (e.g. increased role of agricultural equipment co-operatives and agricultural contractors, adaptation of processors and consumers to less standardized products). As for the more general consequences on the rural environment, the experts believe that factors other than the adoption of ecological systems have a stronger impact on the evolution of the rural environment.

2.2. Key points in the discussion of these results during the webinar

Sample of respondents: The small number of respondents was noted by the webinar's participants. The distribution list for both surveys included all agricultural sectors and very different respondent profiles. While the respondent sample is not representative, the qualitative responses from the three-round survey cover a wide range of opinions and perspectives, and the results of the ranking survey indicate that there are different groups of respondents.

Definition of the term "ecological": The fact that a broad definition of the term "ecological" was purposely adopted in the LIFT project has generated a rich debate with diverse dimensions.

Type of surveys: The ranking survey was considered to be not very user-friendly (Word format, negative wording of some statements) and did not provide the opportunity to express key elements to give an adequate view of the respondent. Regarding the three-round survey, it was criticized for its length.

Content of the surveys: The subjects that were missing in one and/or the other survey, according to the participants, are: the digitalisation of agriculture, the relation with upstream and downstream sectors, the size of the farms, the balance between local and global issues, the lack of connection with the consumer. Besides, the scale (farm or territory level) of the statements was not specified.

Suggested topics to explore: opportunity costs of adopting practices in specific territories, consumer willingness to pay.

3. Levers to achieve sustainability objectives in Ille-et-Vilaine through the development of ecological agriculture

3.1. Presentation of the results of an opinion survey

A list of some 50 objectives was established through a review of the literature and expert opinion. Most were objectives common to all European case studies in the LIFT project, and a few were specific to Ille-et-Vilaine. The objectives related to environmental, social, economic, and institutional capacity dimensions of sustainability. Stakeholders ranked these objectives according to their importance for Ille-et-Vilaine. A total of 13 people participated in the survey.

For Ille-et-Vilaine, the sustainability objectives identified as the most important by respondents relate to the following topics: sustainable management of water and soil resources in agriculture, reduction of chemical fertilizers and greenhouse gas (GHG) emissions, and limiting the vulnerability of farms to external events.

3.2. First ideas about levers

Once these sustainability objectives will be identified for Ille-et-Vilaine, the LIFT project aims to perform a network analysis based on the causal relationships between levers and objectives. Initial ideas for levers were presented during the webinar. In the presence of macro forces such as climate change, availability and accessibility of natural resources, global and local demand, availability of labour, policies (Common Agricultural Policy-CAP, environmental policy, land policy, agricultural structural policy), the levers proposed to meet the objectives described in the previous paragraph are the following: insurance (e.g. on crops), product prices (inputs and outputs), labels, adoption of ecological practices / setting-up of farms in ecological systems, land, infrastructure / innovations, training and advice.

3.3. Key points of the discussion

Regarding the objectives, the following aspects were questioned by participants:

- The objectives are not at the same level; for example, reducing the use of chemical fertilizers is more of a lever (means) than an objective (result).
- Objectives on the following themes are missing: pesticides (even if these are implicitly included in the objective on water quality), air quality, alternative herd management and more generally livestock farming, maintaining the number of farms.

Regarding the proposed levers, the following remarks were noted:

- The "price" lever could also take into account ecosystem services (GHG, soil and water quality). However, a tax should be implemented at a level higher than the NUTS3-region (e.g. the European Union) in order to keep prices competitive. Taking into account environmental services can also be done through labels, such as organic farming.
- Livestock farming in Ille-et-Vilaine is already very efficient in terms of GHG emissions. The development of livestock farming in another area than Ille-et-Vilaine would therefore have a negative effect at the global level.
- Communication should not be neglected. For example, it should be made clear why vegetarian meals are being introduced in canteens.
- Land plays a key role. It is an obstacle to the ecological transition. Municipalities or groups of municipalities could help tackle this problem.
- An important force can also be the role of processors, retailers and cooperatives. The value chain does have a crucial role.