

Report on the implementation of the regional FAB-landscape integration plans

Deliverable WP 3 D1.4a

Author: Lies Messely and Lene Cillen

Project partners:



1 Introduction

This report gives an overview of all activities implemented by the FABulous farmers partners to embed Functional AgroBiodiversity (FAB) solutions in landscape management at regional level. Agriculture provides ecosystems for a broad range of species, many of which are reliant on the quality of agricultural landscapes. Similarly, agriculture depends on important ecosystem services provided by species in the agro-ecosystem, such as insect pollination, natural pest control, erosion control, nutrient cycling, soil quality and water regulation. The well-documented decline in biodiversity resulting from increasingly intensive agricultural production processes has also resulted in a loss of these ecosystem services of essential importance to farming.

Towards a landscape approach for FAB

The farmers involved in the FAB regional networks in the 12 pilot regions implement several measures to reinforce FAB in and around their fields. Although very valuable, the impact of this one actor-one parcel approach is not enough to reinforce FAB on a landscape level. To successfully increase FAB we need to take a systems thinking approach to agriculture. Different measures taken on a farm such as no tillage and crop rotation interact and complement each other. Biodiversity is also not limited to the farm, hence FAB can also be supported by actions taken in the surroundings of agricultural land, for example by planting hedges, alternative management of roadsides etc. To effectively reinforce agrobiodiversity, we need a landscape lens that should be used to look at two dimensions. First, considering ecological questions, we need to know what land uses and associated agrobiodiversity are needed at what scales to support a resilient agroecosystem. Second, considering the social issues, in densely populated areas, urban land use mixes with rural land use, so that agricultural landscapes do not belong only to farmers and peri-urban landscapes with multiple actors emerge. We need to know who those actors are, what their role is and how to mobilize them to ensure an integrated approach to strengthening agrobiodiversity. In this report we focus on the social aspects of reinforcing FAB on a regional landscape level.

To implement FAB on a wider landscape scale a multi-actor-approach is necessary, in which farmers work together with other stakeholders (nature conservators, forest & wildlife managers, land owners, local authority, citizens ...) and a mutual positive understanding is created. The 12 collective FAB action plans will be part of a broader vision on landscape or rural development plan which takes account of all rural stakeholders of the pilot region.

Participatory approach to embed FAB in landscape management

In order to embed FAB on a regional level, the FABulous farmers has developed an approach to

- 1) identify relevant FAB stakeholders in the pilot regions,
- 2) involve them in discussions on their possible contribution to FAB and

- 3) develop a FAB landscape integration plan (FLIP). This FLIP is a plan that lists complementary actions of different stakeholders to reinforce the FAB action plan of the farmers in the pilot regions.

As Work Package lead, ILVO has developed an approach to guide the pilot region coordinators through these different steps.

Impact of COVID-19

As in many projects, COVID-19 and the related restrictions had an impact on the progress of the activities in FABulous farmers. Due to the COVID-19 restrictions in the participating countries, starting from March 2020 on, the organization of the farmers' learning network meetings (D.T2.1.3) was delayed. One of the objectives of these network meetings was the development of a FAB action plan (D.T2.1.5), and later on a yearly evaluation of the FAB action plan (D.T2.1.6). The FLIP and regional stakeholder meetings were intended and designed to build further on these (evaluations of the) FAB action plans, as they started from the barriers for the implementation of FAB measures that farmers identified.

Due to this delay, the organization of the regional stakeholder meetings was also delayed. The last stakeholder meeting was organized in November 2022. This means that this report mainly focuses on the process to develop a FAB landscape integration plan and the comparison of the FAB stakeholders and the different FAB landscape integration plans, rather than the implementation of the FLIP.

This report gives a summary of the tools and methods that were used in the process to develop a FLIP tailored to the specific context of the 12 pilot regions. We focus on the main results of the comparative analyses. For a more extensive and detailed comparison we refer to Deliverable WP 3 D1.4b.

2 Participatory approach for developing the FAB landscape integration plans

2.1 Stakeholder analysis

In a first step, ILVO developed guidelines for a FAB stakeholder mapping exercise. This allowed the project partners in each pilot region to get a **good insight into the local stakeholders who have an impact on the implementation of FAB measures**. The stakeholder mapping exercise gave insight into:

- The motivations of the stakeholders to get involved (or not) with actions that enhance FAB and its associated benefits.
- The perceived barriers to the implementation of FAB measures.

- The kind of resources and power the stakeholders possess and could contribute to our project.
- The relative interest and influence of the stakeholders on the implementation of FAB measures.

This information allowed the pilot region coordinators to define the level of engagement of each stakeholder group and to design the **appropriate engagement approach** for all identified stakeholders in a well-informed way, with the ultimate goal of involving them in the preparation and implementation of the regional FAB landscape integration plans.

The guidelines were noted down in the [FAB stakeholder mapping handbook](#), which helped the pilot region coordinators to identify, understand and categorize relevant FAB stakeholders in their regions. All the collected information was reported in the [FAB stakeholder map template](#), developed by ILVO.

ILVO has analyzed all these stakeholder maps to develop:

- A template for the FAB landscape integration plan,
- Guidelines for organizing and preparing the regional stakeholder meetings in the pilot regions.

2.2 Stakeholder meetings

The stakeholder meetings are meetings with regional stakeholders to explore how they can stimulate or support farmers to implement FAB measures or take up actions themselves to complement the farmers' actions. Based on the information in the FAB stakeholder maps and the FAB action plans developed by the farmers in the pilot regions, the pilot region coordinators could start preparing the stakeholder meetings. Almost every pilot region has organized 2 regional stakeholder meetings.

ILVO analyzed and compared the 12 FAB stakeholder maps and presented the [findings](#) to the pilot region coordinators, to support and inspire them. ILVO also provided the pilot region coordinators with practical [guidelines](#) and [support](#) to organize the stakeholder meetings.

2.3 FLIP

ILVO developed a [template](#) for the pilot regions to collect and synthesize all relevant information of the stakeholder maps and meetings.

The template contained three sections:

- 1) A first section listed the FAB stakeholders that were invited and present at the 2 stakeholder meetings
- 2) Actions to lift barriers to implement FAB measures on farmland, specifying the necessary resources, stakeholders and priorities for identified barriers.

- 3) Actions to strengthen opportunities to implement FAB measures on landscape level, specifying the necessary resources, stakeholders and priorities for identified opportunities.

3 Evaluation of the FAB landscape integration plans

In this section we analyze, synthesize and evaluate the information collected in the 12 pilot regions of the FABulous farmers projects. We do this for the three main sections of the FLIP: the FAB stakeholders, the actions to lift the barriers for farmers and the actions to strengthen opportunities on landscape level.

3.1 FAB stakeholders

All 12 pilot region coordinators have done a FAB stakeholder analysis for their region and completed the FAB stakeholder map template developed by ILVO. These FAB stakeholder maps for the 12 pilot regions can be found on basecamp. ILVO has analyzed and compared all information that was collected. The results of the comparative [analysis](#) of all these stakeholder maps are compiled in an Excel file, D.T3.1.4b. This Excel file compares the 12 pilot regions on:

- Selected FAB measures (Table 1),
- Identified stakeholders,
- Motivations to implement FAB measures
- Barriers to implement FAB measures
- Resources to implement FAB measures

Table 1: Overview of the selected FAB measures in all 12 pilot regions

FAB measures	Pilot regions
Field margin management	East of England, Hoeksche waard, Zeeland, West-Brabant, Pajottenland
Mixed crops / crop rotation	SW England, Pays de la Loire, Zeeland, West-Brabant, De Merode, Luxemburg
Agroforestry	Wales, Normandy, East of England, De Merode
Reduced tillage	Pays de la Loire, De Merode
Organic matter input	Pays de la Loire, Zeeland, West-Brabant, De Merode, Luxemburg

Reduced use of plant protection products	Pays de la Loire, Normandy, Hoeksche waard, Pajottenland, De Merode
Cover crops	Brittany, De Merode, Luxemburg, Pays de la Loire
Hedgerow management	Brittany, Normandy

A broad range of different stakeholders were identified in the pilot regions: farmers, farmers' advisors, environmental organizations and ngo's, private companies, local authorities (e.g. municipalities), regional or national authorities, regional or national administrations, citizens, public private partnerships for landscape/nature management, universities and other research institutes, etc.

We made the distinction between stakeholders at farming level and stakeholders at landscape level. Summarized in a broad manner, the pilot region coordinators identified at farm(ing) level these stakeholders:

- Businesses and private companies like agrifood companies, agro-ecological management organizations, agronomists, land agents
- Governmental organizations: national/regional governmental agricultural agencies, local authorities
- Farmers' representatives like farm advisory bodies, farmers associations and/or cooperatives

At landscape level these broad categories of stakeholders were identified:

- Businesses and private companies: forest management professionals, offsetting companies, private water companies, recreation and tourism businesses
- Governmental organizations: governmental water management agencies, levy bodies, local authorities, national/regional governmental environmental agencies, regional authorities, public infrastructure
- Civil society stakeholders: beekeepers, consumers, hunters, environmental NGOs, local citizens, press, private landowners, research and educational institutions, public/private landscape nature management organizations

When we take a look at who was present at the regional stakeholder meetings, we noticed that farmers were always identified as stakeholders, but they were only present in about half of the regional stakeholder meetings. When they were not present, it were mainly representatives from farming organizations that participated. Other businesses or private companies at farm level were rarely identified as stakeholders and thus not present at regional stakeholder meetings. Agricultural as well as environmental (water management, forest management, authorities were identified as stakeholders and they were invited and present in about half of the pilot regions meetings. From the civil society stakeholders, mostly environmental NGOs and research/educations institutions were present at the stakeholder meetings. Local citizens were always identified as stakeholders, but never invited to a meeting.

Furthermore, there was a large difference in the involvement of local/regional/national authorities and/or administrations, which is definitely also related to the different institutional contexts in the countries of the pilot regions. In France, for example, there already is a longstanding tradition of working on a regional level, with an institutional context that is organized to work in a place-based manner on region specific challenges like water quality. In the Netherlands, things are arranged mostly on a national level by the state and there is less tradition to work in an integrated, place-based way.

Some observations can be made on the identification of stakeholders and their participation in the regional stakeholder meetings. A first observation is that the FAB stakeholder analysis was carried out at the very start of the project, often even before the first meetings with farmers of the regional learning network took place. As a consequence, it was not yet clear what FAB measure would be the focus of the farmers learning network. Therefore the stakeholder mapping exercise was done on a rather broad level or a combination of FAB measures. After the first couple of meetings with the farmers learning network, the scope of the FAB measures shifted. This meant that not all identified stakeholders in the mapping exercise were still relevant for the new scope or that some new stakeholders needed to be added to the regional stakeholder meeting. Based on this information we recommend that initiatives who want to work on FAB landscape integration first invest the time needed in the dialogue with regional farmers to select the FAB measures tailored to their farms and their needs. Only when there is a clear focus on the FAB measure that regional farmers want to test, the step for the FAB stakeholder analyses can be taken. This will allow for a much more targeted and concise stakeholder mapping, that will provide the necessary information for the next steps.

A second observation is that it was difficult to reach all identified key stakeholders in the meetings. It was not always easy to convince farmers to participate in the regional stakeholder meetings, for several reasons like lack of time or lack of interest. In some pilot regions, relations between farmers and nature organizations was tense and some farmers preferred not to participate in the meetings out of fear for conflict. Also stakeholders who have an important and direct influence on farmers' operations could not always be reached or convinced to participate in the stakeholder meetings. For example local authorities mostly have a direct relation to farmers and the power to implement measures on their territories. Another example are farmers' advisors, who are amongst the most important knowledge gatekeepers to farmers.

3.2 Actions to lift barriers for farmers to implement FAB measures

Based on the stakeholder maps and the regional learning network meetings, several barriers for farmers were identified. We have found three categories of barriers for farmers to implement FAB measures on their farms. A first group of barriers is related to **awareness**: farmers don't have enough knowledge about FAB measures in general and

why it could be relevant for their farm activities. They are not aware of the purpose and benefits of FAB measures and they are not informed on the existing possibilities for support to implement FAB measures. A second group of barriers focuses on the **willingness** of the farmers to implement FAB measures. In general, like all people, farmers are reluctant to change their behavior and adopt new techniques, that might complicate their work. There is still a lot of uncertainty linked to the implementation, with a financial impact for the farmers. It is unclear what will be the impact on the farm income and whether there is a solid business model for the implementation of FAB measure. It is not clear how their products will be valorized and what surplus value they will be able to create on the market. The dependence on government funding and subsidies is also a risk, because it is not certain that this will be the case in next policies. Farmers fear stricture regulations in the future, undermining their autonomy in farm management. It is also unclear for farmers what will be the impact of these measures on their labor organization. Farmers have identified the lack of scientific proof and data to underpin the effectiveness of FAB measures as a barrier to implement. Finally, a third group of barriers focuses on the **practical implementation** of the FAB measures. Farmers fear that they lack the experience and skills to implement FAB measures in a correct manner. Farmers only have limited time to complete all their tasks and it is not clear to them how much time and labor will it take to weed, to control for pests and quality of the crops, for maintaining flower strips, and so on. In order to change their farm management, farmers might need extra machines, equipment and other inputs, with higher costs, also for maintenance. The administrative load might also be higher, for example to be eligible for government funding or subsidies.

All pilot regions have identified several actions to lift the barriers for farmers to implement FAB measures. These can be found in the respective FAB landscape integration plans of the pilot regions, as well as in the comparative Excel file.

In order to lift the barriers related to **awareness**, it will be important to communicate about the purpose and benefits of FAB measures, to collect practical information and provide this information directly to farmers in an accessible and trusted format.

Several strategies were identified to lift barriers related to **willingness**, like the FAB farmers one stop shop which will provide case studies, technical cards and business cases, tailored to the target audience of farmers. Furthermore, it will also be necessary to organize demonstration events, that will showcase the different FAB measures and where information on the techniques, impact and business models will be shared. It is important that these demonstration events also provide time for interaction with and among farmers, to promote peer to peer learning. Another strategy to lift the barrier of willingness is to provide accessible and long-term agri-environment schemes that support farmers financially to implement the measures. It will also be important to engage with policy makers to promote supporting FAB measures through government subsidies.

Several strategies were also identified to lift the **practical implementation** barriers, focusing on increasing the knowledge of farm advisors, to provide them with all practical

information and evidence, so that they can share this knowledge with farmers. Personal guidance and consultation by farm advisors will be useful to provide farmers support with business planning and the introduction of the FAB measures on their farm. The set-up and facilitation of learning networks of farmers to share knowledge and experiences with the implementation of FAB measures was mentioned as an important way to lift these barriers.

3.3 Actions to strengthen opportunities to implement FAB measures on landscape level

The comparative analysis showed three categories of opportunities to implement FAB measures on landscape level.

1. Environmental opportunities

- Enhanced landscape, pleasant environment
- Improve water quality
- Improve soil quality
- Increased biodiversity, support ecosystem services
- Mitigate consequences of climate change
- Resource protection
- Improved animal welfare

2. Social relational opportunities

- Farm clusters and farmer groups
- Network of different actors
- Involve citizens

3. Economic opportunities

- Reduce inputs / costs
- Increase profit (new revenue model, payment for ecoservices)
- Market opportunities

4 Framework to integrate FAB on landscape level

Based on the analysis of all collected information and the processes in all pilot regions, we propose a framework to guide regional management stakeholders in integrating FAB on the landscape level. This framework can be found in Annex 1.