

Innovation, Knowledge exchange | EIP-AGRI



Enhancing biodiversity on farmland through high-diversity landscape features

How can farmers maintain, enhance and create High-Diversity Landscape Features that positively impact farmland biodiversity?

Agricultural landscape features are areas of natural or semi-natural habitats in various size ranges. Irrespective of their size, they offer major contributions to ecosystem services and biodiversity. They have long-standing historical and cultural roots in the agricultural landscapes of Europe, but have become threatened following the rise of intensive agriculture.

The Focus Group (FG) entitled 'Enhancing biodiversity on farmland through High-Diversity Landscape Features' (HDLF) focused on:

- › collecting and highlighting good practices
- › identifying challenges and opportunities for farmers for introducing HDLF to increase size, diversity and connectivity between HDLF
- › suggesting innovative HDLFs and their appropriate maintenance
- › identifying examples of attributing value to HDLF and gaining economic benefits
- › identifying capacity building needs, further research needed and ideas of EIP Operational Groups

The FG has identified a large number of good practices and success stories for introducing and maintaining HDLF at different spatial scales. For example, the agroforestry hedgerows planted in France, the biodiversity strips in vineyards in Austria, water ponds in pastures in Italy and farmland dry stone walls in Croatia. The FG experts identified existing HDLF in different farming systems and in different climate zones and, along with their associated biodiversity benefits, also highlighted the socio-economic and environmental benefits of HDLF. There are possibilities to introduce more HDLF to increase the diversity and area of habitats as well as better connectivity between habitats. Traditional and modern practices and technologies, success stories and multiple capacity building options as well as available support boost such possibilities. However, the FG experts acknowledged the existence of barriers that hinder the widespread adoption of such practices. These barriers encompass technical, economic, social and psychological factors, such as the availability of local species of seedling material, high investment costs for small farmers, lack of motivation by larger farmers, the resulting increase in workload and others. The FG also emphasised the need to enhance knowledge exchange to better understand the motivations and barriers faced by farmers when adopting HDLF and to understand and explore the economic benefits and co-benefits of HDLF for climate change.

"Farmland is the dominant land use in Europe and the way it is managed is important for pollinator conservation. By providing food, safety, and shelter for pollinators on the farm, halting and reversing their decline is possible. One way to do this is to manage high diversity landscape features for pollinators across farmland."

Stefan Kirchweger (Austria),

Austrian expert of the EU CAP Network Focus Group on Enhancing biodiversity on farmland through High-Diversity Landscape Features.¹

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Knowledge gaps and research needs

- › Understanding the motivation and barriers for farmers with regard to the adoption of HDLF
- › Effectiveness of different communication channels and tools
- › Economic assessment and attribution of an economic value
- › Effects of HDLF on water retention and microclimate
- › Co-benefit of HDLF for climate change adaptation

Ideas for Operational Groups

- › Development and testing of an innovative whole farm scoring system so as to quantify how pollinator-friendly the entire farm is as a land parcel (as opposed to an individual land parcel approach)
- › Creation of model farms with HDLF that can be visited and used as a demonstration farm for educational purposes, both for practitioners and/or for the wider public
- › Farmer to farmer training
- › Development of advisory tools to help farmers establish HDLF on their farms
- › Testing the integration of different tools for knowledge and promotion of HDLF and in different contexts

For more ideas for Operational Groups and research needs, please see the final report.

More Information

- › [EU CAP Network Focus Group entitled 'Enhancing biodiversity on farmland through high-diversity landscape features': Final report](#)
- › [Mini Paper 1: The role of knowledge and promotion](#)
- › [Mini Paper 2: Implementing High Diversity Landscape Features on farms: small changes but large gains](#)
- › [Mini Paper 3: Managing High Diversity Landscape Features \(HDLF\) for pollinators](#)
- › [Mini Paper 4: The social and cultural benefits of high-diversity landscape features](#)
- › [Mini Paper 5: Benefits of HDLFs for on-farm adaptation to climate change](#)

- › [Starting paper](#)
- › [Projects booklet](#)
- › [Focus group webpage](#)

EIP Operational Groups

- › Operational Group entitled 'Biolivar: Monitoring, optimization and valorisation of natural capital in the cultivation of olive groves in integrated production in Andalusia' – Spain, [project website](#)
- › Operational Group entitled 'Hedges as a support of biodiversity, preserving the traditional and disappearing cultural pattern of Slovenian countryside and providing ecosystem services' [project fact sheet](#)
- › More Operational Groups working on biodiversity and HDLF at the [project database](#) on the EU CAP Network website

Inspirational ideas

- › [Protecting farmland pollinators](#) – Ireland
- › AGRI challenge: [Increasing biodiversity in agricultural landscapes](#) – France
- › [AGRI challenge: biodiversity](#) – Portugal

Feedback and questions:

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