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Insights on Transitions to Agroecological Farming from across Europe

Aperçu des transitions vers l'agriculture agroécologique à travers l'Europe

Der Übergang zum agrarökologischen Landbau - Einblicke aus ganz Europa

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Farming systems in transitions towards agroecology, i.e. the application of ecological principles to agricultural systems and practices, have gained prominence in the scientific, agricultural

and political discourse in recent years. In particular, this corresponds to the ambition of the European Union's Green Deal and the Farm-to-Fork Strategy of 'designing a fair, healthy and environmentally-friendly food system'. The current European Union (EU) regulation of organic production (EU, 2018) is an example of a formalised implementation of farming approaches based on agroecological practices that have had some success. But while there is some initial evidence of the economic impacts of agroecological practices (van der Ploeg *et al.*, 2019), questions remain about the economic viability and trade-offs in the economic, environmental and social performance of farming systems that are in transition towards agroecology (Tittonell *et al.*, 2020). In addition, risks of negative impacts on food security and displacing production to other world regions have been highlighted (Fuchs *et al.*, 2020). Hence, the socio-economic dimensions of the sustainability of farming systems in transition to agroecology requires further attention (Bezner Kerr *et al.*, 2021).

Enhanced evidence is needed to design appropriate policy programmes to support socio-economically viable farming systems in transitions to agroecology. Questions that are still unanswered include the following:

- What exactly are the barriers and drivers that hinder or foster the adoption of agroecological practices?
- How can these be addressed considering the different local contexts that European farming systems operate in?
- What are the options for upscaling the adoption of agroecological practices to territorial levels?
- What roles do different stakeholders have in achieving the wide-spread adoption of practices?
- What are the potential sustainability implications of large-scale diffusion of agroecological practices in the EU?
- How can policy effectively support such farming systems to contribute to the goals of the Green Deal?

This Special Issue of *EuroChoices* aims to provide some answers to these questions, highlighting and combining key findings from two related EU-funded research projects, the LIFT and UNISECO projects. Both projects have been running separately, with different methodologies and concepts, but provide complementary views on these questions. The articles in this Special Issue adopt a broad understanding of agroecological practices, i.e. those that aim to produce food, fibre and energy and contribute to improving the sustainability of farming systems. We expect the contributions to the sustainability of farming systems to be based on the optimisation of ecological processes contributing to environmental and public health and well-being; along with reductions in socio-ecological costs from agriculture such as soil degradation, water contamination, greenhouse gas emissions and inequitable social structures (Bezner Kerr *et al.*, 2021; HLPE, 2019).

Agroecological practices include practices at field level such as the use of cover crops and reduced or no tillage; at farm level such as the creation of riparian buffers and the integration of crops and livestock; at regional and community levels, the management of landscape features and increasing local markets that connect consumers to producers (Prazan and Aalders, 2019; Wezel *et al.*, 2014). In the LIFT and UNISECO projects, practices were implemented in different combinations in a range of farming approaches transitioning to agroecology, such as low-input farming, conservation agriculture, integrated farming and organic farming (Rega *et al.*, 2018). Both projects analysed the implementation of agroecological practices in a variety of case studies across Europe reflecting different local and place-based contexts of transitions to agroecology (Latruffe *et al.*, 2022; Vanni *et al.*, 2019).

In this Special Issue, the first two articles (Barnes *et al.*, this issue; and Gava *et al.*, this issue) address barriers to transition to agroecology. Considering the attitudes and priorities of farmers and other local actors, the

articles explore how these barriers can be overcome in different biophysical, socio-economic and institutional contexts and investigate the potential of different sets of policy instruments to support transitions to agroecology. Farm-level sustainability of agroecological practices is the focus of the third article, with special attention to labour (Davidova *et al.*, this issue). The fourth article provides a territorial level perspective (Mayer *et al.*, this issue) with insights on the impacts of scaling-up agroecology on the sustainability of European agriculture. The fifth article (Schwarz *et al.*, this issue) highlights the need for a food systems perspective in research and policy to accomplish sustainability benefits of transitions to agroecology. The sixth article is a *Parlons Graphiques* showcasing approaches to assessing sustainability trade-offs and synergies (Niedermayr *et al.*, this issue). The seventh article (Zawalińska *et al.*, this issue) discusses how stakeholders' involvement can contribute to achieving transition to agroecology in farming. The eighth article (Rega *et al.*, this

issue) identifies knowledge gaps and suggests new indicators for moving towards the Farm Sustainability Data Network (FSDN), providing an improved database for evidence-based policy recommendations. Finally, the concluding article (Miller *et al.*, this issue) brings together the key lessons learnt in our research and provides recommendations for policies that effectively contribute to achieving the objectives of the Green Deal. The final *Point de Vue* article reflects on the prospects of increased implementation of agroecological practices from an economic perspective (Matthews, this issue).

Acknowledgements

The authors would like to thank all stakeholders in the EU and case study level activities of the LIFT and UNISECO projects for their contributions. The authors also acknowledge the contribution of all partners in the LIFT and UNISECO projects to the research this Special Issue is based on. The authors are also

grateful to the Editor and referees for their valuable comments and suggestions that improved the quality of the articles in this Special Issue.

Funding information

LIFT ('Low-Input Farming and Territories – Integrating knowledge for improving ecosystem based farming') received funding from the European Union's H2020 research and innovation programme under grant agreement No. 770747. UNISECO ('Understanding & improving the sustainability of agroecological farming systems in the EU') received funding from the European Union's H2020 research and innovation programme under grant agreement No 773901.

Open Access funding was provided by INRAE (French National Institute for Research on Agriculture Food and the Environment).



<https://www.lift-h2020.eu/>



<https://uniseco-project.eu/>

Further reading

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