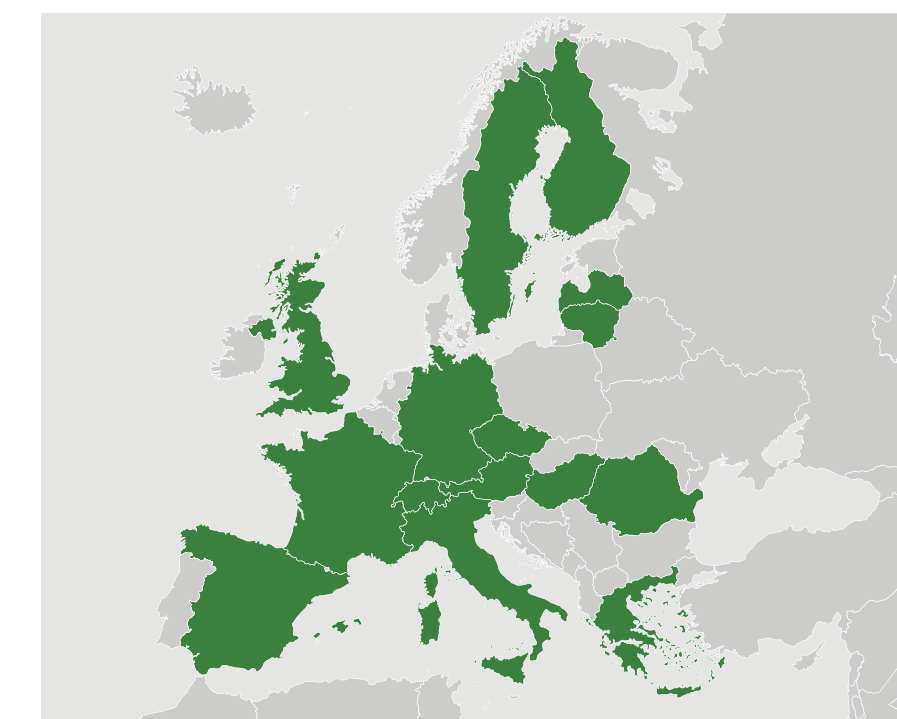




Barriers and Drivers of Agro-Ecological Transitions in Intensive Agricultural Areas: a Case Study from Hungary

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Context, objectives and research questions

There is an increased awareness that agro-ecological farming systems (AEFS) are fundamental for sustainable food production in the future.

The key dilemma is how to produce public goods whilst having viable production of private goods, securing economic and social sustainability at a farm level, which is not overly dependent on public funds.

The ambition of UNISECO is to address this key dilemma through co-constructing improved, practice-validated strategies & incentives for the promotion of AEFS in case studies in 15 European Countries. The case studies will answer the following questions:

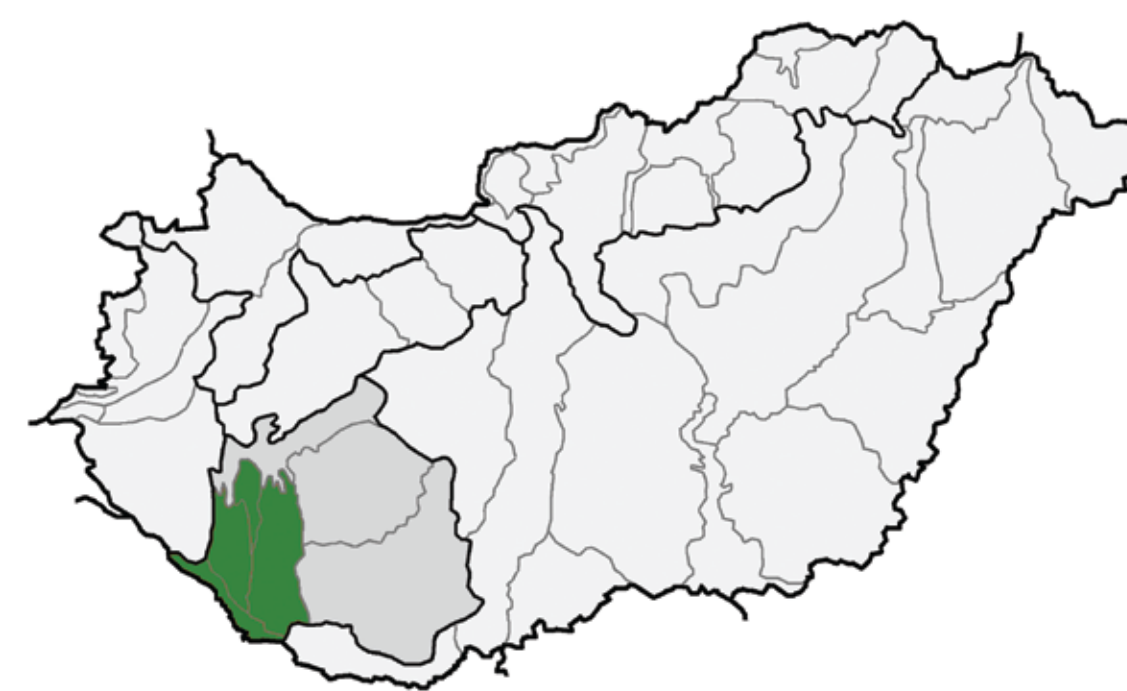
- How can barriers and dilemma of AEFS be addressed in a specific case study context?
- What are the socio-economic and environmental implications of the transition to agro-ecological farming?
- Why were innovative strategies and incentives successful (or unsuccessful) in enhancing the joint provision of private and public goods of AEFS in a specific case study context?
- What lessons can be learnt for other cases and future policies?

The case studies cover a wide range of farming systems with different levels of agro-ecological innovations. The Hungarian case study provides an example for the analysis of what is required to initiate the transition process to agro-ecological farming in cases of highly market-oriented farming with low level of agro-ecological innovation.

Case study description

Case study area and main production systems

- Landscape mesoregion: Belső-Somogy (3000 km²) in South Transdanubia
- Intensive agricultural area with specialist crop production



Source: <https://hu.wikipedia.org/wiki/Belső-Somogy>



Photo: Katalin Balázs

Key characteristics of the case study

Sustainability Issue (example)	Farm Production Type	
Pressure on natural resource: soil quality and its ecological sustainability, social and economic trade-offs	arable systems, specialist crop production, market-oriented farming	
Agro-ecological Practices (examples)	Level of Cooperation	Involvement in Value Chain
Extensive margins, nutrient management, reduced/no tillage, conservation management of soils	Some farmers cooperate with industrial input supplier in environmental management (demonstrations: soil conservation, field margins management) Sub-regional self-organizing cooperation for agri production and selling.	No direct involvement

Methodological approach

Case study specific dilemma:

- How to integrate agro-ecological practices on arable land in highly market-oriented arable farming systems to maintain and improve soil quality without significant negative impacts on the economic viability of farms?

Potential key barriers to be addressed:

- Lack of knowledge and openness to alternative practices and technologies, farmer attitudes towards agro-ecological farming, low social capital, lack of capital, credit and bank guarantee for investment in specific machinery, lack of specific agro-ecological advisory services, soil as natural resource with underrepresented social/institutional value in general

Conceptual framework:

- Adapted socio-ecological systems framework (Guisepelli et al. 2018)

Multi-actor approach:

- Use of participatory workshop methods and decision support tools
- Key role of stakeholder champion trusted by farmers and key actors

Expected results

- Improved understanding of barriers and drivers of transitions to AEFS in intensive agricultural areas
- Co-constructed novel and effective market mechanisms and policy instruments to improve the sustainability of intensive arable farming systems
- Enhanced evidence of the sustainability implications of different agro-ecological transition paths of arable farming systems
- Improved knowledge base of agroecological farming for use by policymakers with at EU, national and regional levels, advisors, farmers, value chain actors and consumers

References

Guisepelli, E. et al. (2018): Adapted SES Framework for AEFS and Guidelines for Assessing Sustainability of Agricultural Systems in Europe. Deliverable Report D2.1, UNISECO Project. Available online: <https://uniseco-project.eu/resources>



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