

UNDERSTANDING & IMPROVING THE SUSTAINABILITY OF AGROECOLOGICAL FARMING SYSTEMS IN THE EU

UNISECO Project Introduction

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UNISECO financed under:

- Call H2020-SFS-2017-2 Sustainable Food Security-Resilient and Resource-Efficient Value Chains
- > Topic SFS-29-2017 Socio-eco-economics socio-economics in ecological approaches
- Project duration: 1st May 2018 30th of April 2021 (3 years)
- ➤ Kick-off meeting: Took place at the end of May 2018 in Braunschweig

Consortium:

- Trans-disciplinary consortium with significant experience of partners in co-constructing research with those responsible for policy development and delivery.
- Combination of HEIs, research institutes, SMEs and organisations representing key actors
- ➤ 18 partners across 16 countries





Consortium overview

No.	Partner	Country
1	Thuenen Institute of Farm Economics (TI)	Germany
2	Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria (CREA)	Italy
3	Agricultural University Athens (AUA)	Greece
4	University of Natural Resources and Life Sciences A	
5	The James Hutton Institute (HUT) UK	
6	The University Court of the University of Aberdeen (UA)	UK
7	Institut Superieur D'Agriculture Rhone Alpes (ISARA)	France
8	Baltijas Vides Forums (BEF-LV)	Latvia
9	Baltijos Aplinkos Forumas VSI (BEF-LT)	Lithuania
10	Forschungsinstitut fur Biologischen Landbau Stiftung (FiBL)	Switzerland
11	Geonardo Environmental Technologies LTD (GEO)	Hungary
12	Luonnonvarakeskus (LUKE)	Finland
13	Sveriges Lantbruksuniversitet (SLU)	Sweden
14	Gestion Ambiental de Navarra, S.A. (GAN)	Spain
15	Asociatia WWF Programul Dunare Carpati Romania (WWF)	Romania
16	Ustav Zemedelske Ekonomiky a Informaci (UZEI)	Czech Republic
17	European Landowners Organization (ELO)	Belgium
18	Bioinstitut, o.p.s.	Czech Republic



Key dilemma to be addressed:

How to produce sufficient amount of public goods from agriculture while having viable production of private goods securing economic and social sustainability on farm level, which is not too dependent on public funds?

Overarching ambition and objective:

To strengthen the sustainability of European farming systems, through co-constructing improved and practice-validated strategies and incentives for the promotion of agroecological approaches.

Need for:

- > Systems-based approach
- Multi-actor engagement with farmers, advisors, actors in the value chain, consumers, and policy makers
- Range of tools / methods for co-learning and assessment





Primary analysis

Policy and practice

Underpinning	1. To develop and operationalise a conceptual framework of socio- ecological systems for the sustainability assessment of agro-ecological farming systems	2. To critically review drivers that may hinder or foster the successful implementation of agro-ecological approaches in EU farming systems, leading to improved management strategies	3. To develop and test new transdisciplinary methodological approaches to improve the assessment of the sustainability of agro- ecological farming systems
Primary analysis	4. To assess the social, economic and environmental performance of agro- ecological farming systems in comparison to conventional systems at farm, farm-group and territorial level, based on representative typology	5. To co-construct innovative management strategies for agro-ecological farming systems considering gender participation and farming demographics and to assess these in case studies reflecting the diversity of EU farming systems	6. To assess the territorial sustainability impacts of large-scale implementation of agro-ecological farming and to highlight environmental, economic and social synergies and trade-offs at regional, national and EU level
oriented outputs	7. To assess the effectiveness of co-constructed innovative market and policy incentives promoting agro-ecological farming systems to increase productivity, public good provision and job creation in the agricultural sector and rural areas in the EU	8. To test the feasibility of the practical implementation of innovative market and policy incentives through multi-actor engagement in case studies at farm level and at regional, national and EU levels	9. To improve the integrated capacity and knowledge sharing of end-users, stakeholders and scientists to address barriers for enhanced agro-ecological approaches informing recommendations for effective policy support for agro-ecological farming



- > Adapted **SES framework** for sustainability assessments of farming systems
- Setting-up, managing and monitoring multi-actor platforms to foster engagement and horizontal and vertical cooperation of key actors of agro-ecological farming systems (AEFS)
- Empirical data collection in participatory case studies of SES and co-construction of knowledge, management strategies and market incentives and policy instruments
 - Use of decision support tools
 - Interviews, focus group meetings and surveys
 - Multi-attribute assessments
- Biophysical and socio-economic modelling and development of robust indicators for assessing sustainability and innovative strategies of AEFS at territorial level
- Development of a UNISECO agro-ecological knowledge hub for dissemination and exploitation building on experiences of partner networks



Project structure





- The main objective is to provide a conceptual framework for the project and to ensure a consistent theoretical underpinning of the practice and policy recommendations; this includes:
 - To develop and operationalise an adapted SES framework suitable for understanding factors of sustainability of AEFS, and the complexity of systems providing public and private goods under current and future drivers and barriers
 - To guide a consistent case study design and selection process with the MAPs taking into account variations in the systems and their context.



- Adapted SES framework and guidelines (month 6)
- Typology of ago-ecological farming systems and practices in the EU & selected case studies (month 9)





- The farm level assessment is at the core of the case studies and carries out analysis of innovative management strategies, market incentives and policy instruments at the levels of farms, farm households, groups of farms and farming systems; it assesses:
 - Environmental and socioeconomic performance of AEFS and sustainability trade-offs
 - How drivers and barriers to the implementation of AEFS can be addressed in a specific SES context
 - Why innovative strategies were successful/unsuccessful in promoting sustainable private and public good provision in a specific SES context
 - What lessons can be learnt for future policy recommendations



- > Performance assessment of AEFS (month 14) and trade-off assessment (month 27)
- Story Maps explaining the case study results and experiences of key actors (month 19) and lessons learnt (month 28)



- The overall aim of WP4 is to assess the territorial impacts of innovative strategies (co-constructed in WP3) and market and policy incentives (co-constructed in WP5) for AEFS, this includes:
 - Assessment of selected global impacts (e.g. GHG emissions) using biophysical and socio-economic modelling approaches (BioBam and SOLm models)
 - Framing the option space of social, economic, environmental and policy drivers at the territorial level
 - Scenario development derived through participatory stakeholder workshops and surveys



- Spatially-explicit modelling framework for the integrated assessment of environmental, social, economic benefits and impacts (month 19)
- > Territorial impacts and lessons learnt (month 30)





- The overarching objective of WP5 is to analyse market and **policy** incentives, with **governance** mechanisms, supporting AEFS; this includes:
 - To provide an updated inventory of policy and market incentives supporting AEFS
 - To assess the governance of the SES of key AEFS in the case studies
 - To develop a participatory analysis of regulatory tools, policy measures, market initiatives and collective actions that are supporting improved AEFS
 - What lessons can be learnt for future policy recommendations



- Improved understanding of governance and policy factors hindering or enhancing successful implementation of agro-ecological approaches (month 20)
- Innovative market incentives and policy instruments favouring conversion pathways to AEFS (month 26)





- The overarching aim of WP6 is to synthesize qualitative and quantitative analysis into an integrated sustainability assessment of AEFS across the SES, made available on the Knowledge Hub through an online toolset with spatial features; it includes:
 - Integrated sustainability assessment will build on theory-based evaluation
 - Different tools for different target groups
 - Visualisation of quantitative territorial results through interactive impact maps



- > Prototype of the spatially explicit interactive online tool and its functions (month 12)
- Synthesis report of the integrated sustainability assessment (month 33)
- Methodological handbook (month 35)
- > Issue briefs for practitioners and policy makers (month 18 and month 36)





- The central aim of WP7 is to facilitate multi-actor engagement in the MAPs as an integral part of the implementation for WPs 2 to 6 and dissemination and exploitation (WP8); it includes:
 - MAP participants' selection pool with individuals, groups and/or institutions which affect or are affected by the processes within the SES
 - Key intersection points for co-construction and co-learning through participatory processes in each WP
 - Monitoring and assessment of tools and approaches



- Guidelines for MAP members selection (month 06)
- > A guide to transdisciplinarity for partners (month 09)
- > Evaluation of transdisciplinary tools and methods (month 33)





Higher level contributions, UNISECO will , e.g.:

contribute directly to achieving SDGs 2 and 15 on protection, restoration and promotion of sustainable use of terrestrial ecosystems

More specifically, UNISECO will, e.g.:

- enhance knowledge sharing of actors (e.g. advisors, farmers, value chain actors and policy designers) to address barriers for enhanced agro-ecological approaches
- use simple, effective, tools to support the **buy-in of actors** in different socio-cultural contexts unaccustomed to the participatory application of complex decision support tools
- produce new information on effective strategies, market incentives and policy instruments for delivering public goods, and the knowledge needed to address barriers to their development and implementation
- deliver an improved knowledge base of agro-ecological farming in the EU for use by policy-makers with remits at European, national and regional levels, advisors, farmers, value chain actors and consumer representatives









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