



Annual Science Days 2024, 10-14 June, 2024
Vilnius, Lithuania (LT)

More than a Dialogue between actors,
seeking the integration of soil-based principles
in agroecological systems



EJP SOIL
European Joint Programme

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PARTNERS:

- **Turkyie:** General Directorate of Agricultural Research and Policies (TAGEM)
- **Latvia:** University of Latvia (UL)
- **Lithuania:** Research Centre for Agriculture and Forestry (LAMMC)
- **Czech Republic:** University of Life Sciences Prague (CZU)
- **Poland:** Institute of Soil Science and Plant Cultivation (IUNG)
- **Italy:** CREA (Council for Agricultural Research and Economics); CNR (National Research Council)
- **Spain:** CSIC



RELEVANCE OF THE RESEARCH PROPOSAL

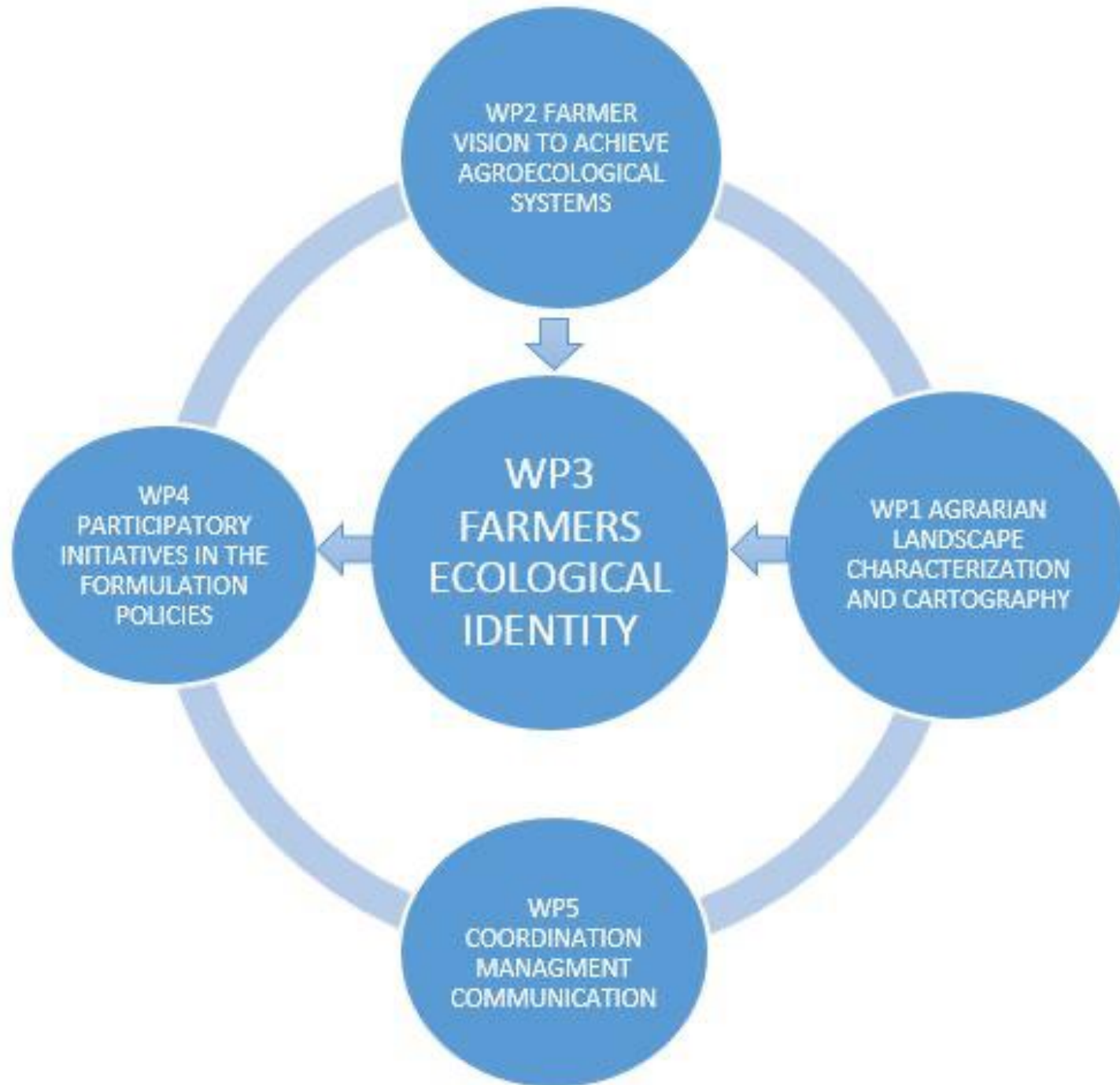
The implementation of agroecological approaches is currently **relatively limited to pioneering farmers and farmer associations** in the EJP-Soil countries (including Turkey); and despite support for sustainable **PRACTICES** through **SECTORIAL** policies, the implementation of sustainable agroecological **SYSTEMS** is **NOT really ADDRESSED at the EU level**.

The Into-DIALOGUE project investigated the reason why the **conjunction** of various **practices**, which farmers are already selectively implementing, in a systemic strategy at the **FARM or LANDSCAPE SCALE** is difficult to realize.

Does it depend on:

- the ecological identity of the farmers?
- the characteristics of the farms?
- the slowness in the development of policies and measures?

WORK PACKAGES



WP1 – METHODS, APPROACHES AND FINDINGS

Agrarian landscape characterization and cartography



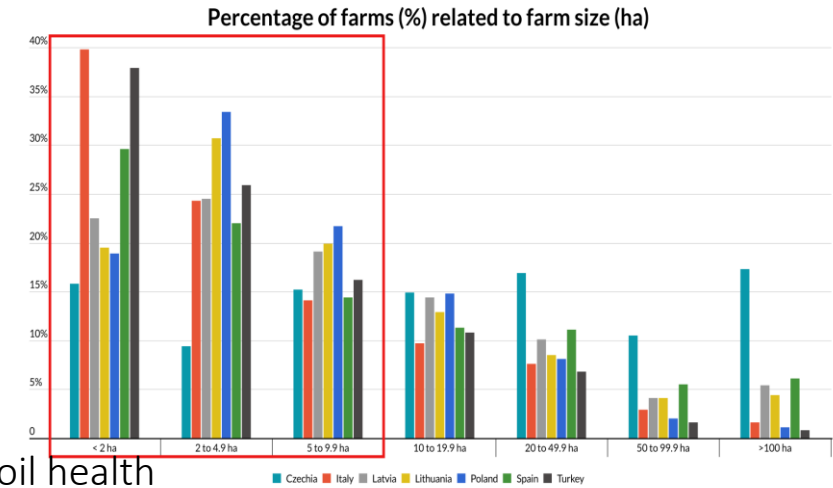
Task 1.1- Methodology for the selection and evaluation of indicators for the characterization of the attributes that can affect the application of soil-based agroecological measures

Distribution of agricultural land

- Land size / farm size / number of farms
- Agricultural area distribution of Eurostat crops
- Distribution of tillage practices of arable land
- Distribution of farmer's gender and age
- Analysis of CAP subsidies and budget

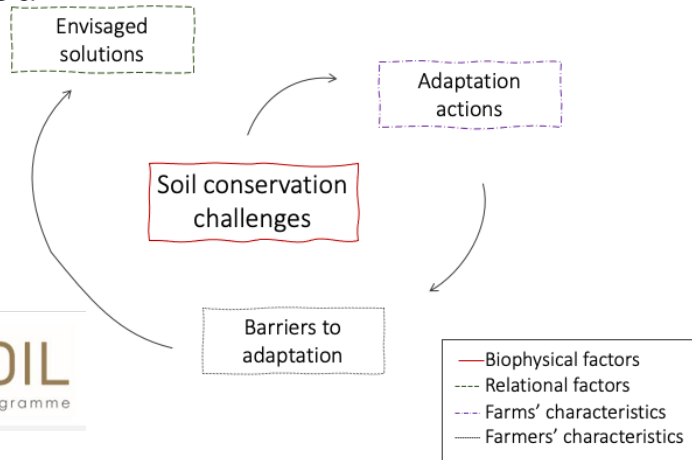
Agrarian landscape characterization

- Soil types/texture
- Soil organic carbon
- Land use/cover
- Crop selection
- Land use/cover and crop's impact on soil health

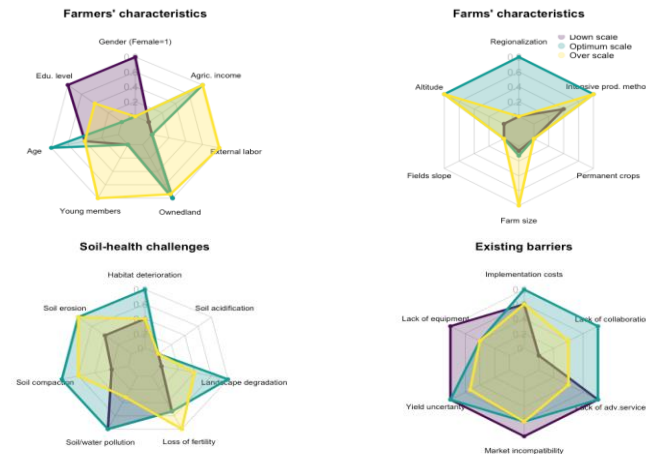


Task 1.2- Socio-economic analysis of farms applying agroecological soil-based practices - Case studies.

Method



Results

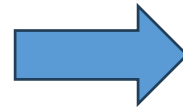


WP2 – METHODS, APPROACHES AND FINDINGS

Farmers' vision to achieve agroecological systems



Task 2.1 - Comprehensive literature review on existing data



*A systematic review (SR) was done to understand the **relations** between **agroecology, soil health indicators** in LTE regarding from 2018 to 2022.*

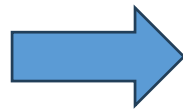
The main agronomic practices and soil health parameters studied in relation to soil health in LTE were respectively:

- Organic amendment (OA) (35%)
- Cover crops (CC) (22%)
- Reduce Tillage (RT) (33%)
- Intercropping (IC) (10%)
- Soil Organic Matter is the parameters most studied (51%),
- Soil Biota is the component less studied (6%).

The results showed also that there is an **emergent need** to establish a **tool** to including physical chemical and biological properties useful to **assess soil health at farm scale**. **No farmer opinion were considered in soil focused research.**

Task 2.2 -Farmers needs with a focus on soil

The template of questionnaire for farmers as Google form is available at: <https://forms.gle/UYEKue1XcXDRA9ht9>



Template of questionnaire for farmers

Please take 15 minutes to share your thoughts on the questionnaire designed to assess and comprehend the agroecological identity of farmers within designated region/country. This comprehensive survey focuses specifically on identifying soil-related challenges and evaluating the level of awareness regarding the adoption of agroecological practices. Your input is crucial to our understanding of these important topics.

The questionnaire consists of six sections:

1. section, **Demographic Information**: Collects basic demographic data to understand participants' backgrounds.
2. section, **Ecological Identity**: Assesses perceptions of agro-ecological practices and current farming methods.
3. section, **Awareness of Agroecological Practices**: Evaluates participants' knowledge levels and information sources regarding agroecological practices.
4. section, **Barriers and Facilitators**: Identifies obstacles to adoption and factors that could encourage the adoption of agroecological practices.
5. section, **Soil-Related Challenges**: Collecting insights on how agroecological practices can influence challenges associated with soil.
6. section, **Additional Comments**: Provides participants with an opportunity to share any further insights or suggestions they may have.

Thank you for taking the time to complete this survey.



Task 2.3- Soil quality field test kit guide of soil indicators for end-land users



Building a draft of a graphical kit soil indicators for farmer



WP3 – METHODS, APPROACHES AND FINDINGS

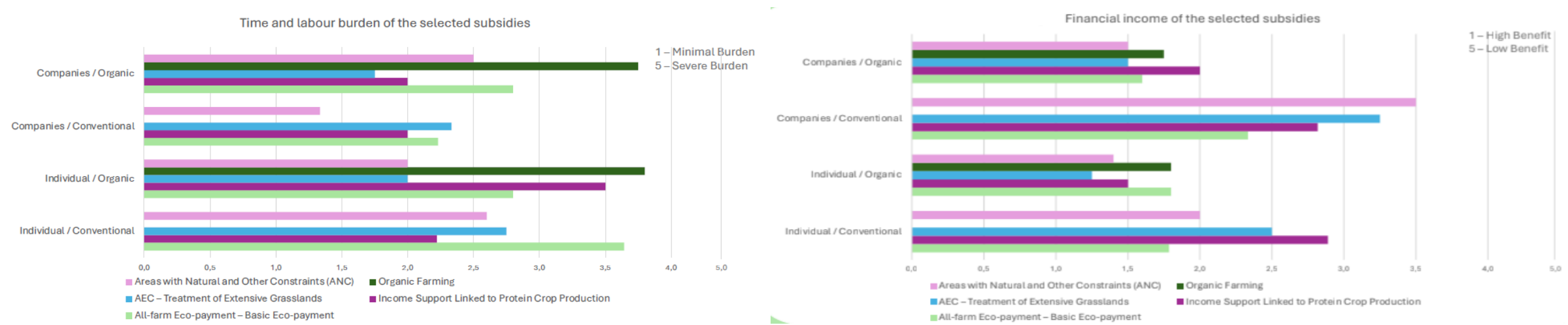
Farmers' ecological identity



Task 3.3 - Drivers and barriers for farmers' acceptability of soil-based agroecological management practices

In the questionnaire that is prepared to recognize the ecological identity of farmers, questions have been included that allow knowing the drivers and barriers that farmers encounter to implement sustainable practices.

Data from Czechia:



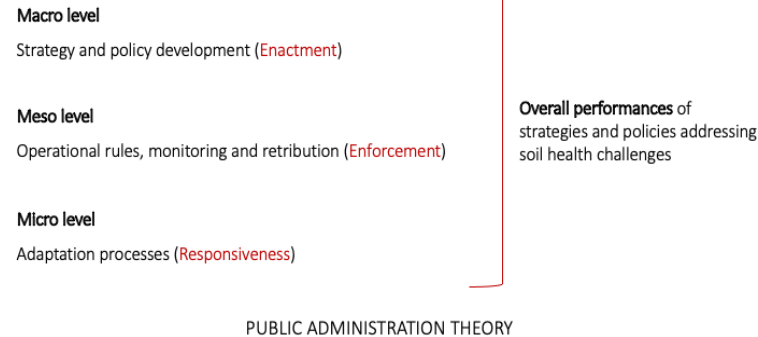
WP4 – METHODS, APPROACHES AND FINDINGS

Participatory initiatives in the formulation of policies

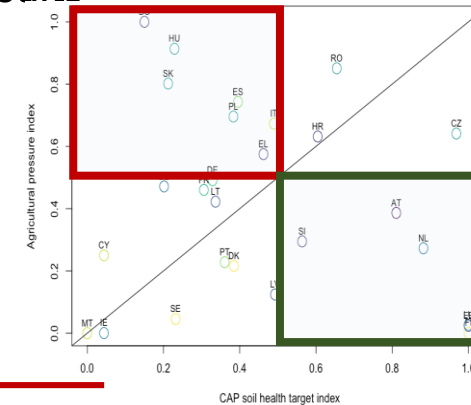


Task 4.1 - Analysis of regional, national, EU and Turkish laws, and competencies to incorporate soil-based principles into their laws

Method

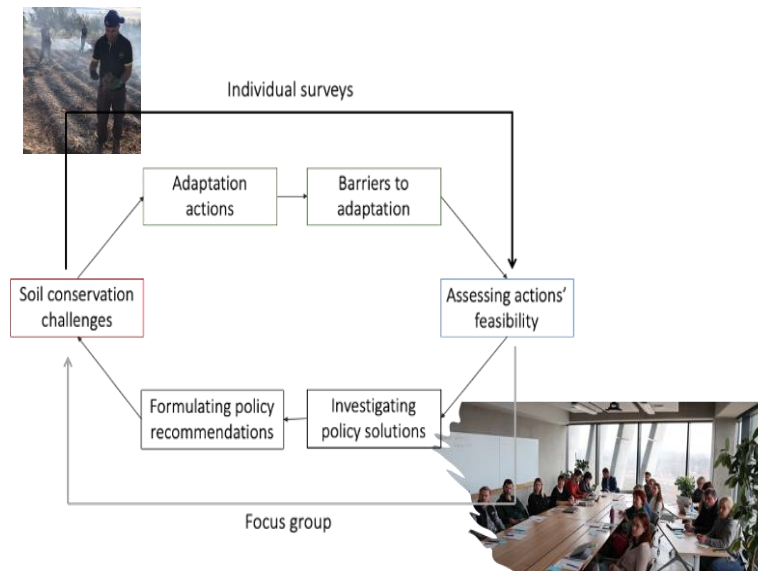


Results



Task 4.2 - Participatory processes to involve farmers in the formulation of policies on soil-based Sustainable Agroecological Systems

Method



Results

Macro level

- **Lack of efficacy** of the EU soil-health initiatives because of their poor influence on key policies under the primary control of local governments (i.e., limited effort to counter **land grabbing** in Balkan areas, limited effort to facilitate **access to land** for small and young farmers in IT).

Meso level

- Great **arbitrariness** in **translating** the EU CAP regulation into National Strategic Plans, including the **definition of conditionality requirements** (e.g., GAEC 2 poorly defined in Baltic regions, GAEC 7 poorly defined in all MS).
- **Not adequate enforcement of environmental regulations** (Infringements related to the WFD and the Nitrate directive where mainly found in southern EU, while infringements related to the Habitat directive in Baltic and Balkan regions).



KEY FINDINGS

- The lack of public support and the absence of environmental regulations together with lack of coordination contribute to facilitating the overexploitation of agricultural soils in the TR study region.
- the abandonment of livestock farming in the EU study regions contributes to specialisation and dependence on mineral fertilisers, while the lack of young family members undermines the future of the agricultural sector.
- Lack of dialogue between farmers' representatives and policy-makers allows to enact measures that are not consistent with contingent environmental problems and incompatible with existing market conditions.
- Public support is considered essential to enable farmers owning small farms to purchase the necessary equipment and to accompany the correct implementation of the required practices.
- Extension services and demonstration fields are seen as essential to guarantee the transition towards sustainable agroecological systems in all regions involved in the study.



Thank you very much for your attention

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