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Policy gaps and inconsistencies in addressing
agricultural soil health challenges in the EU and Türkiye

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Legal Background

- Union policy on the environment shall contribute to: preserving, protecting and improving the quality of the environment; protecting human health; prudent and rational utilisation of natural resources; promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change [Article 191 of the TFEU (1957)]
- Land-use planning policy must be conceived in terms of the soil properties and the needs of today's and tomorrow's society and, farmers must apply methods that preserve the quality of the soil [point 3 and 4, **European Soil Charter (1972)**].
- The **EU Soil Strategy** was launched in **2021** and includes several actions, but “there is currently no binding overarching framework that strategically defines policy priorities or parameters for soil protection” (European Commission, 2021).
- On 5 July 2023, the EC published the proposal for a **Soil Monitoring Directive**, which aims to establish a soil monitoring network to assess soil health and guide corrective actions.

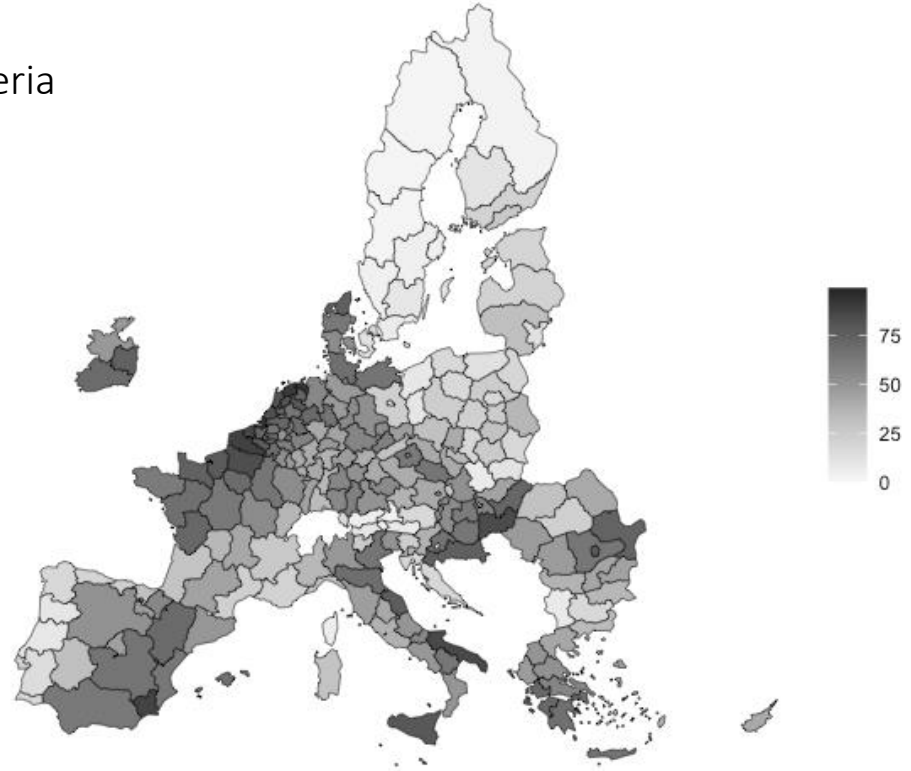
Environmental Background

Potential threat to biological functions (only an example)

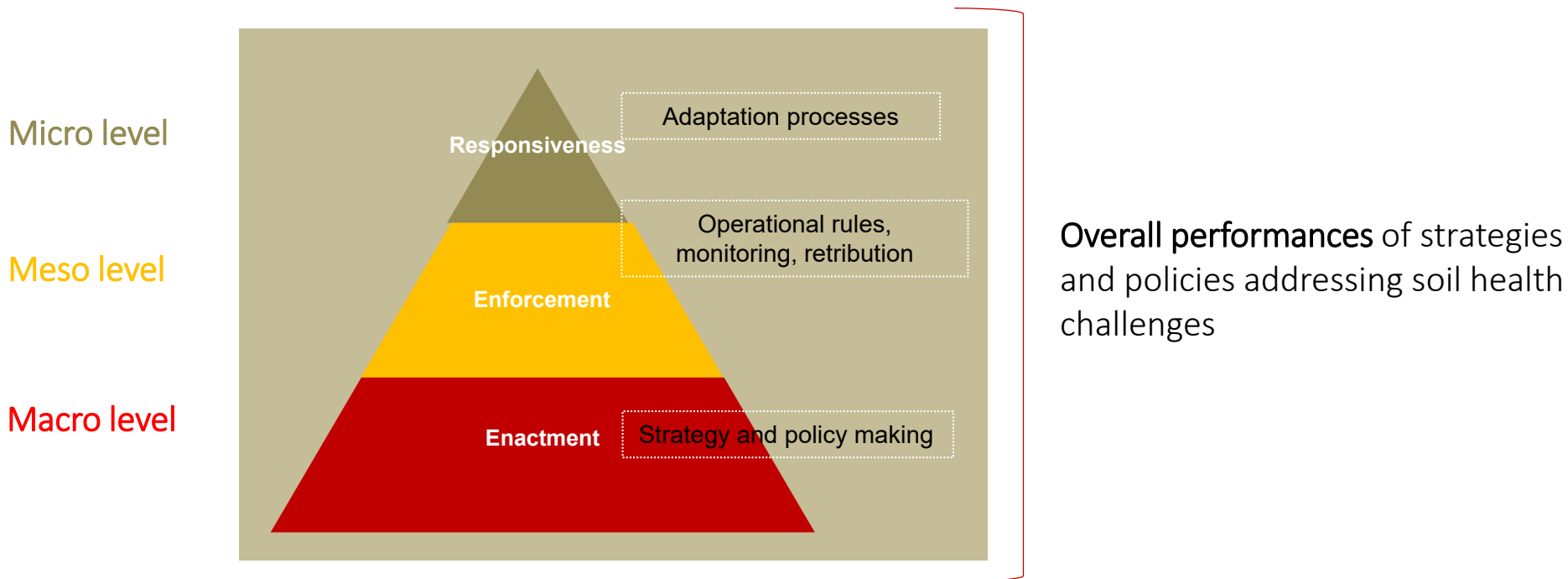
Organisms living in soils – from worms to fungi and bacteria – are driving soil functions guaranteeing the provision of essential soil ecosystem services.

The indicator synthesises 13 factors such as habitat fragmentation, land-use change, and soil pollution

Source: [EU Soil Observatory](#) (EUSO)



Theoretical framework – Levels of governance for policy evaluation based on soil functions



Methodology

Research Design – Mixed Methods

Quantitative analysis

- To investigate the translation of financial policies (CAP) into oper. rules
- To investigate compliance with rules

Source: secondary data from official statistics

Geographic Scope

EU Level (27 countries)

Qualitative analysis (which is still ongoing)

- To further investigate the translation of EU financial policies into oper. rules
- To investigate the existence of policies promoted locally
- To investigate the responsiveness of local actors (influenced by adopt. barriers)

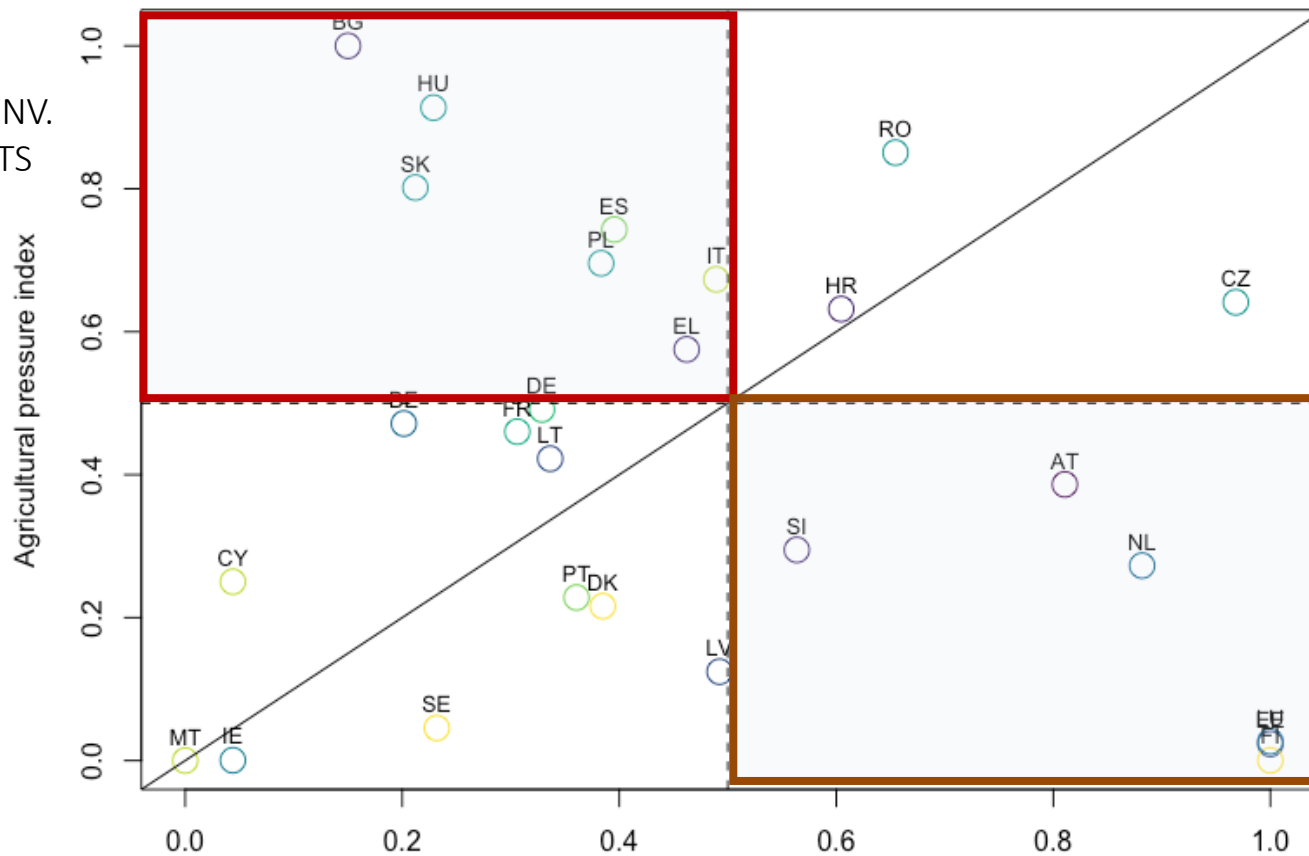
Source: primary data from a protocol of investigation designed and implemented by local experts

Study regions (7 countries)
[IT, ES, LT, LV, CZ, PL, TR]

Quantitative analysis results

Translation of financial policies into operational rules – Agric. soil pressures and CAP soil health index

PRESSURE LEVELS > AGRI-ENV. TARGETS

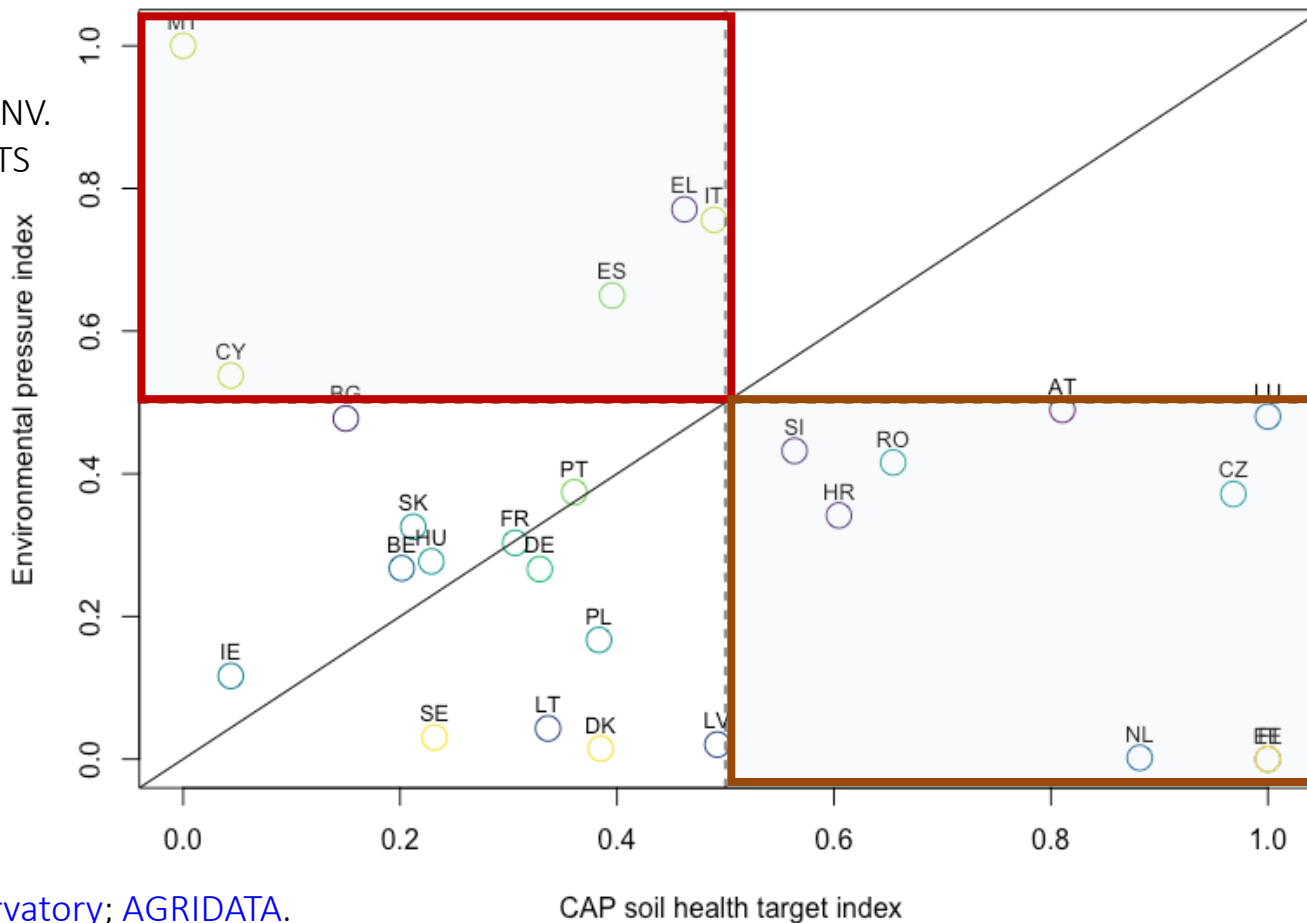


PRESSURE LEVELS < AGRI-ENV. TARGETS

Quantitative analysis results

Translation of financial policies into operational rules – Env. soils pressure and CAP soil health indicators

PRESSURE LEVELS > AGRI-ENV. TARGETS



PRESSURE LEVELS < AGRI-ENV. TARGETS

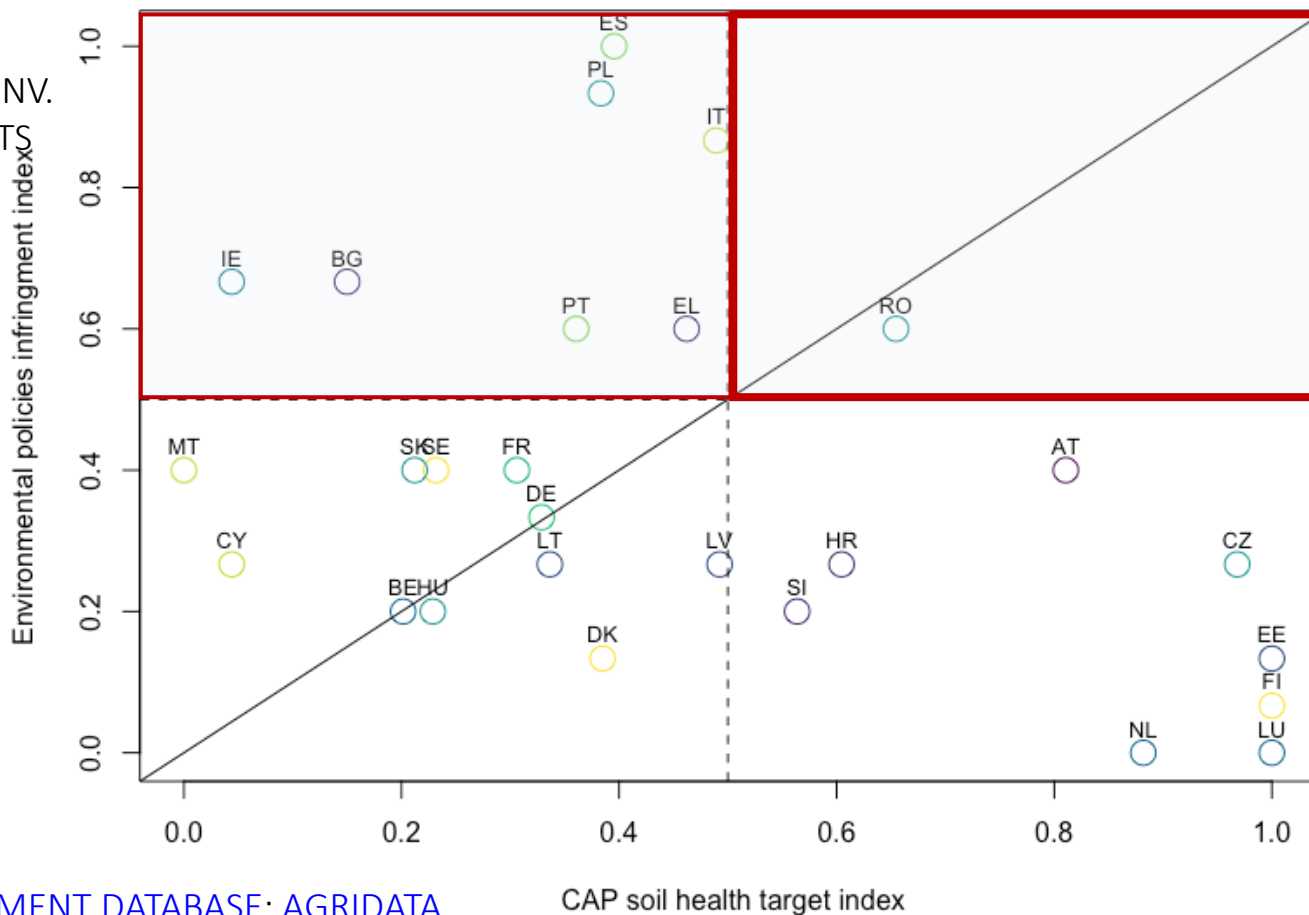
Quantitative analysis results

Compliance with rules – Env. infringements and CAP soil heath target indicators

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Qualitative analysis results

The existence of facilitating policies promoted locally – Strategies, laws and regulations [Macro level]

Facilitating policies	Outcome
Land use policies	<ul style="list-style-type: none"> • <i>Regulating the protection of the environment and the landscape</i> <p>Land use policies are implemented in all study regions. In ES there exists a unique regulation facilitating the afforestation of agricultural lands at risk of abandonment.</p>
Land market policies	<ul style="list-style-type: none"> • <i>Regulating the protection of the environment and the landscape</i> <p>Land grabbing is an issue in Baltic and Balkan regions and is even promoted in TR. PL did not permit foreigners to buy the land until 2016, but the impact has been very limited. IT is paying attention to access to land for farmers and young farmers.</p>
Food policies	<ul style="list-style-type: none"> • <i>Triggering new market opportunities</i> <p>For organic farming, both LT and CZ support national labels, while ES autonomous community labels. Geographical indications of origin are prominent in IT, followed by ES.</p>
Legal empowerment	<ul style="list-style-type: none"> • <i>Enabling participatory processes for sustainable development</i> <p>Unique policies to facilitate the development of eco-regions, land associations and rural and food districts are promoted only in IT.</p>

Translation of financial policies into operational rules – Env. commitments in the study regions [Meso level]

Environmental commitments (SMR/GAEC)	Outcome
TR vs EU study regions	Only GAEC 3 and GAEC 8 are implemented in TR, as well as SMR 2 and SMR 7.
M. of perm. grass. (GAEC 1)	Afforestation and short-rotation forestry are allowed in LT.
Protection of wetlands and peatlands (GAEC 2)	It is very poorly implemented in the Baltic regions where the installation of new drainage systems is allowed (LT and LV) and very well implemented in PL, where even partially drained organic soils are protected.
Cover crops (GAEC 6)	The Baltic regions and PL provide % UAA thresholds below which farmers must use cover crops. No limits are observed in other regions.
Crop rotations (GAEC 7)	A tolerance of two- or three-years monoculture for some crops in most of the study regions offers way out of the commitment. Highest flexibility has been found in LT, which allows three consecutive years of maize cultivation.

Qualitative analysis results

Compliance with rules - Environmental infringements in the study regions

[Meso level]

Environmental infringements	Outcome
NATURE	Most of the infringements relate to biodiversity regulations, mainly concerning the incorrect identification of Natura 2000 sites and other areas of special interest. Particularly relevant are the infringements detected in the Balkan and Baltic regions.
WATER	Infringements relate to the application of the Water Framework and the Nitrates Directive, with reference to the inadequate monitoring of the status of water bodies and the consequent definition of nitrate vulnerable zones and water management plans. These are particularly relevant in ES, PL and IT.

Responsiveness of local actors – Networking initiatives in the study regions

[Micro level]

Networking initiatives	Outcome
Living Labs and Lighthouses	Living Labs are mainly operating in ES and IT in order to promote grazing and pastures management in mountain areas and to fight the risk of desertification. In LT Lighthouses play an important role in the form of large demonstration farms.
EIP-Agri Operational Groups	OGs addressing soil compaction are promoted in CZ and LT, those dealing with afforestation in LT and LV, and those against soil erosion and soil organic matter loss in ES and IT.
Land associations and forest owners associations	The first operate in IT in order to face landholding fragmentation and counter land abandonment. The second operate in other study regions and can share information and favour the conversion of marginal agricultural lands.

Macro level

Shortcomings in the national or regional land use and land market policies denounce difficulties in: countering land grabbing in the Baltic and Balkan study regions and favouring access to land for small and young farmers in the others. Lack of legal empowerment of local actors contribute to limiting their responsiveness to policies.

Meso level

The misallocation of CAP and national funds supporting the adoption of sustainable practices and the provision of advisory services is noticeable. This is compounded by inappropriate implementation of environmental regulations and transaltion of the CAP conditionality requirements.

Micro level

The lack of knowledge and innovation networks and collective initiatives limits the responsiveness of local actors to financial opportunities and adaptation to regulations.

Possible future directions of research

Investigation on Policy framework

Further exploring the availability of EU reports and scientific articles on national policies directly affecting the health of agricultural soil in the EU.

Scope of the study

Enlarge the scope to the entire EU for all the governance levels explored.

Methodology

Improve data availability to perform more robust analysis (e.g., Qualitative Comparative Analysis).



Thank you for your attention!

