

NEEDS THAT SOIL PARTNERSHIP SHOULD COVER

Case study North Macedonia

Needs at regional level....

To act as a well structure regional infrastructure which will:

- serve as a referent source of information for the soils in the region,
- contribute to articulation of mutual issues, exchange of ideas and finding solutions,
- to get networked with similar regional partnerships,
- to enforce:
 - sustainable soil management,
 - awareness rising for soil issues regionally and nationally,
 - research of soils either via scientific projects or mutual monitoring programs,
 - comparison and harmonization of soil data and methods of work,
 - exchange of know how and individual capacities (training programs, summer schools, scientific visits etc.)

What is needed!

To establish the governance:

- to provide support from the Ministries,
- to establish the coordination mechanism (e.g. steering committees, administrator, working groups for key pillars).
- to develop and action plan and program of work with expected goals and outputs,
- enable sustainability of the partnership,

To establish the technical infrastructure

- select and entitle an coordination center, responsible for overall communication, coordination and hosting of the platform,
- provide technical capacities for data storage,
- development procedures for data storage, data sharing and visual dissemination,

Needs on national level.....

To support the drafting of national legislation through:

- sharing of best practices among partners for the institutional setup, responsibilities, needed capacities etc.,
- harmonization of functions regulated by the legal framework primary Legislation - Law on soils and Secondary legislation - Rule books,
- support in development of best sustainable soil management practices and measures of soil protection in all sector actin as a drivers: agriculture, forestry, energy sector, mining etc.....,
- sharing of experience in implementing strategy of activities and functions foreseen with the legislation, possible bottlenecks, and risks etc.

Needs on national level.....

To support the process of national soil monitoring program

- Harmonization of monitoring procedures, analytical methods field survey, standardization of the sampling schemes and building of consistent soil-quality related databases,
- Adoption of indicators for assessing soil quality and early detection of degradation processes for securing soil ecosystem services,
- Best practices for remediation of degraded soils (especially contaminated sites),
- Development of efficient national system for coordination between all stakeholders, for:
 - data sharing between data users and data providers,
 - transparent and timely reporting to the decision makers, international organizations and wider public,
 - permanent harmonization of national with EU legislation etc.

National needs related to soil research

Enforcement of technical capacities and soft skills

- Implementing, testing and calibration of new methods and approaches of soil analytics and more complex survey of soil properties and functions, (e.g. soil spectroscopy, DSM)
- Implementing of new technology in soil survey: GPS, drones, satellite imagery etc.
- Modeling of soil properties, defining of minimum data sets for well calibrated pedotrasfer functions,
- Soil data structuring, soil management data collection and other environmental co-variables data collections, to enable use of process models and empirical models and its calibration and validation (e.g. carbon sequestration, soil salinization, soil organic matter, depletion soil erosion, etc.

Needs to support of the ongoing activities

- **New Law on soils in underway.** Initial steps are already ready!
- Land Degradation Neutrality reports was finalized with global data sets. With the support of the Regional Soil Partnership it is possible to develop a regional datasets for the LDN indicators,
- National Communications of Climate change revealed the problem with lack of data for modeling the risk assessment in agriculture and forestry and development of scenarios. This initiative can contribute towards enforcement of such capacities,
- Soil erosion map has been updated! For the agricultural land the RUSLE model was used and one of the main obstacles were reliable soil data.
- Carbon farming is in the focus of our future activities, where carbon sequestration is the central issue, because soil is the biggest carbon pool in the overall environment.

Thank you for your
attention

Prof. Dushko Mukaetov
Institute of Agriculture – University “Ss Cyril and Methodius”