

ENRD Thematic Group 'Resource efficient rural economy'

Improving the resource efficient management of soils and water

Why the theme 'resource-efficient rural economy'?

- Soils and water underpin the functioning of European ecosystems and the economy, particularly in rural areas.
- Pressure on these natural resources is increasing and remains a central challenge to sustainable development.
- Managing soils and water more efficiently is therefore a strategic priority for Europe, through its contribution to Sustainable Development Goals of the United Nations and EU legislation.
- Reinforced by the Cork Declaration, Rural Development policy has a key role to play in delivering these priorities through RDP focus areas:
 - Priority 4: Focus Area 4b; and 4c: addressing water and soil management.
 - Priority 5: Focus Area 5a; and 5e: increasing efficiency and fostering carbon conservation

1. Improving soil & water quality through efficient land & nutrient management

Land management has a direct influence on the quality of soils and water in Europe. **Diffuse water pollution** from agriculture as well as **soil compaction** and erosion, are key threats to ecosystems and productive sectors. Improving soil and water quality can save costs, increase ecosystem resilience and improve productivity.

Possible measures to address theme include:

- M8, 10, 11 & 16 Improved land management & coordination
- M1 & 2 Improving knowledge of new management techniques
- M4 Investments in infrastructure to manage wastes

Key issues highlighted by members ...

- Nutrient management, reducing run-off and salinization
- Managing fertilisers & pesticides
- Input reduction
- Precision farming
- Economic and sustainable nutrient and waste recycling

2. Improving water efficiency

Exacerbated by climate change, water resources in Europe are increasingly volatile (droughts and floods). Rural areas are the primary catchments where water is gathered for society. Their management is crucial to ensure that water remains available throughout the year

Possible measures to address theme include:

- M7, 8, 10 & 12 restoration of water features and habitats
- M16 coordination at the landscape scale
- M4 & 7 investments in infrastructure to capture and store water

Key issues highlighted by members ...

- Increasing water efficiency in all areas of Europe (e.g. BE, HU, PT, IT)
- Improve water retention in soils
- Develop efficient irrigation
- Coordination with WFD

3. Carbon conservation & sequestration

Carbon stocks in soils vary across the EU, but are generally poor. Rural sectors can both conserve carbon use, and contribute to carbon sequestration. Therefore they have a key role to play in Europe's low carbon transition as well as improving soil functionality in the process.

Possible measures to address theme include:

- M4 investments in low carbon and efficient technology
- M10 & 11 to help land managers to adopt practice to increase the sequestration and retention of carbon in soils.

Key issues highlighted by members ...

Carbon management of soils:

- Reducing compaction;
- Preventing erosion;
- Carbon conservation
- Opportunities for the bio- and circular-economy
- Carbon dilemma (use vs conservation);
- Recycling and reuse



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Possible cross-cutting issues & how can the Thematic Group add value?

Efficient design and use of RDP measures

- RDPs are using a **variety of measures** to address resource efficiency: most commonly 'M10: Agri-environment-climate' and 'M04: Investments in physical assets'.
- There are relevant examples of RDPs using a combination of measures, e.g. 'M4.4: non-productive investments' with 'M10: Agri-environment-climate', and sometimes also combined with 'M16: Cooperation'.
- Improved targeting of measures is important, e.g. in some RDPs, certain measures are only available in priority areas identified in River Basin Management Plans.

TG added value?

- Identify challenges and opportunities in terms of RDP measure use & design and measure uptake by beneficiaries;
- Innovative approaches to scheme/ measure design and delivery, understand how these can improve outcomes
- Library of inspiring examples of how RDPs are used to deliver carbon conservation and sequestration; improvements in soil and water quality; and increased water efficiency;

TG added value?

- Identify challenges and opportunities in terms of any conflicts between measures funded under Pillar 1 of the CAP and the resource efficiency objectives in RDPs;
- Identify challenges and opportunities with regard to implementing RDPs more in line with other strategic initiatives;
- **Good practices** in terms of improving synergies between various initiatives.

Synergies between RDPs, CAP Pilar 1 and other strategic initiatives

- RDPs need to be more in line with the priorities and needs identified in other national and European strategic initiatives and related policies (e.g. the Water Framework Directive, the Floods Directive, Soil Action Plans, climate change targets, etc.).
- Greater join-up between agricultural and environment ministries can lead to better synergies.
- Conflicts between measures funded under Pillar 1 of the CAP and resource efficiency objectives in RDPs need also be avoided.

Engaging farmers and land managers

- Achieving real change requires the engagement of farmers and land managers, yet many are reluctant to go too far for fear of impacting upon productivity.
- Cooperation among farmers (e.g. through M16 on Cooperation) and peer-to-peer learning can improve the information and knowledge of farmers.
- Understanding the motivation of farmers and land managers leads to the ability to design measures in a way that is more attractive and encourage greater uptake.

TG added value?

- Understanding better the motivations of land managers and other beneficiaries, as well as challenges and opportunities in terms of measure uptake by beneficiaries;
- Finding innovative ways to communicate the economic and other benefits of actions to promote resource efficiency.

Members ideas about communication

- **Demonstration** of what people can actually do
- Raising ecological awareness in agricultural sector
- Lack of **information networks** of technical support for farmers based on web services
- Communicate environmental, economic, social benefits

Members ideas about digitisation

- Precision farming Adopted on the farm (including small scale farmers)
- TRL9 [technology readiness level] industrial demonstration project
- Web application 'Decision-Making Support System for individual farming'

Opportunities of digitisation

Digital technology and ICT offer new opportunities in terms of improving resource efficient practices of farmers and land-owners. The TG could aim to identify opportunities in the Digitisation Agenda and how technology can improve the efficient use of soils and water.

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