

The project at a glance

Title: Preventing and Remediating degradation of soils in Europe through Land Care.

Instrument: ENV.2013.6.2-4

Total Cost: € 10.904.457

EC Contribution: € 8.539.524

Duration: 5 years

Start Date: 01-11-2013

Consortium: 27 partners

Project Coordinator: Wageningen
University, NL
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Key Words: soil threats - soil degradation - soil functions - soil ecosystem services - pre-vention - remediation and restoration measures - land care - sustainable land management - conservation - policy recommendations

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Land and Urban Management

RECARE

The challenge

As soil formation is an extremely slow process, soil can be considered a non-renewable resource. Soils should thus be adequately protected and conserved to ensure that soil functions are not lost or diminished. Soil functions are, however, threatened globally by a wide range of processes, and in Europe, a number of threats have been identified in the European Soil Thematic Strategy. The challenge is to prevent degradation and its adverse effects on soil functions and ecosystem services, while simultaneously improving livelihoods.

Project Objectives

Main objectives of RECARE are to:

1. Fill knowledge gaps in our understanding of the functioning of soil systems under the influence of climate and human activities,
2. Develop a harmonized methodology to assess state of degradation and conservation,
3. Develop a universally applicable methodology to assess the impacts of soil degradation upon soil functions and ecosystem services,
4. Select in collaboration with stakeholders, innovative measures, and evaluate the efficacy of these regarding soil functions and ecosystem services as well as costs and benefits,
5. Upscale results from case studies to European scale to evaluate the effectiveness of measures across Europe,
6. Evaluate ways to facilitate adoption of these measures by stakeholders,
7. Carry out an integrated assessment of existing soil related policies and strategies to identify their goals, impacts, synergies and potential inconsistencies, and to derive recommendations for improvement based on RECARE results,
8. Disseminate project results to all relevant stakeholders.

Methodology

As degradation problems are caused by the interplay of bio-physical, socio-economic and political factors, all of which vary across Europe, these problems are by definition site specific and occur at different scales. Therefore, 17 Case Studies of soil threats are included in RECARE to study the various conditions that occur across Europe and to find appropriate responses using an innovative approach combining scientific and local knowledge.

The recently completed FP6 DESIRE project developed a successful methodological approach to evaluate mitigation and restoration measures against desertification in collaboration with stakeholders. This approach will be adapted to include other soils threats, and to evaluate ecosystem services. By integrating results from the Case Studies, knowledge gaps in our understanding of soil systems and their interaction with humans can be addressed, and more general conclusions can be drawn for each soil threat at the broader European level.

Expected Results

RECARE will improve the scientific understanding of complexity and functioning of soil systems and interaction with human activities. The main RECARE scientific innovations are related to the integrated trans-disciplinary approach for assessing preventing, remediating and restoring soil degradation in Europe. RECARE will contribute scale-appropriate solutions to soil degradation problems, which will in addition restore soil functionality and ecosystem services throughout Europe.

The engagement of relevant stakeholders will help to i) identify existing obstacles to the integration of soil protection objectives into and between relevant policies and ii) to reveal solutions to overcome these impediments. RECARE will support improved implementation and coherence across a number of relevant EU policies and strategies.



Project Partners	
1 Wageningen University (WU)	NL
2 Technical University of Crete (TUC)	GR
3 Aarhus University (AU)	DK
4 University of Valencia (UVEG)	ES
5 The Cyprus Institute (Cyl)	CY
6 Norwegian Institute for Agriculture and Environmental Research (Bioforsk)	NO
7 University of Aveiro (UA)	PT
8 Soil Conservation Service Iceland (SCSI)	IS
9 Evenor-Tech	ES
10 Universität Bern (UNIBE)	CH
11 Environment Agency Austria (EAA)	AT
12 ISRIC World Soil Information (ISRIC)	NL
13 Joint Research Centre (JRC)	IT
14 Ecologic Institut gemeinnützige GmbH (EI)	DE
15 Leeds University (UNIVLEEDS)	UK
16 Stichting Dienst Landbouwkundig Onderzoek (Alterra)	NL
17 Corepage	NL
18 Swedish University of Agricultural Sciences (SLU)	SE
19 Institute of Natural Resource and Agrobiolgy (IRNAS-CSIC)	ES
20 Slovak University of Technology in Bratislava (STUBA)	SK
21 Research Institute for Soil Science and Agrochemistry (ICPA)	RO
22 Institute of Soil Science and Plant Cultivation - State Research Institute (IUNG)	PL
23 University of Gloucestershire (UG)	UK
24 Research Institute for Knowledge Systems (RIKS)	NL
25 Cranfield University (CU)	UK
26 University of Padova (UNIPD)	IT
27 Kongskilde Industries (Kongskilde)	DK