



## **Soil threats in Europe for the RECARE project**

Jannes Stolte, Mehretseb Tesfai, and Lillian Oygarden

Bioforsk, Soil and Environment, Aas, Norway (jannes.stolte@bioforsk.no)

Soil is one of our most important natural resources that provides us with vital goods and services to sustain life. Nevertheless, soils functions are threatened by a wide range of processes and a number of soil threats have been identified in Europe. Although there is a large body of knowledge available on soil threats in Europe, the complexity and functioning of soil systems and their interaction with human activities, climate change, and ecosystem services (ESS), is still not fully understood.

An extensive literature review was carried out by a group of experts on soil threats at the European level. In total, around 60 experts from the 17 case study sites of the RECARE project, were involved in the process of reviewing and drafting the report and 11 soil threats were identified. The objective of WP2 of the RECARE project was to provide an improved overview of existing information on soil threats and degradation at the European scale. These soil threats are soil erosion by water, soil erosion by wind, decline of organic matter (OM) in peat, decline of OM in minerals soils, soil compaction, soil sealing, soil contamination, soil salinization, desertification, flooding and landslides and decline in soil biodiversity. The final report of WP2 provides a comprehensive thematic information on the major soil threats of Europe with due attention given to the Driving force-Pressure-State-Impact-Response to soil threats.

Interrelationships between soil threats, between soil threats and soil functions and between soil threats and Ecosystems Services are made, and will be presented. A synergy between the soil threats is made based on the given information in each of the chapters, where we tried to identify the interactions between the threats. We tried to identify in what way one threat acts as a threat for another threat. Also, the link between soil degradation and Ecosystem Services are identified. Again, based on the information given in each chapter, the major climate, human and policy drivers are described.