

Soil diversity and ecosystem services

how can we value services and identify threats to soil sustainability?

A multidisciplinary workshop bringing together policy-makers, economists and ecologists

Funded by the EU project **SOILSERVICE**

Soil biodiversity and soil ecosystem services - quantification, valuation and implementation in policies. 31 May – 1 June 2011, Rauschholzhausen Castle near Giessen, Germany

Organizers: Dr. Stefan Hotes and Prof Volkmar Wollters, Justus Leibig University, Giessen, Germany

Session 1 European policies and soil management

Following the welcome-introduction by organizer Stefan Hotes, [Katarina Hedlund \(pdf\)](#) gave an overview of SoilService and preliminary results in her talk "**Soil ecosystem services a natural capital – how we can use soil ecosystem services to promote actions for enhancing soil biodiversity and sustainable use of soil resources**".

In her talk "**Addressing soil concerns via the CAP, (Common Agricultural Policy)**", [Inge van Oost \(pdf\)](#), European Commission DG Agriculture, Brussels, Belgium, gave an introduction to CAP and presented three policy options within the program. The program was also set in the context of farmer's reality today. She brought up the issue of the need of scientific advice for policy makers in the EU.

[Luca Marmo \(pdf\)](#), European Commission DG Environment, Brussels, Belgium, gave a talk entitled "**On-going actions within the Soil Thematic Strategy and future perspectives**" where he, apart from presenting the strategy, talked about how SoilService can contribute to it. For example, they would need indicators for Biodiversity in soil, input on identification of risk areas, more data on carbon content in soils all over Europe and economic estimate of services and parameters to be considered in risk assessment for contaminated sites. He briefly presented The Soil Factory- as a booklet in English, German, Italian and French.

Session 2 Ecosystem service quantification and valuation for the promotion of sustainable land use

Then our organizer [Stefan Hotes \(pdf\)](#), University of Giessen, Germany talked about "**European land use scenarios and ecosystem service provision**" in which he gave a review of different scenarios for predicting land use change over the next 10

to 70 years in Europe.

The last talk before lunch, “**The ecosystem service valuation challenge - insights from the global TEEB-study on the Economics of Ecosystems and Biodiversity**” was given by [Carsten Neßhöver \(pdf\)](#) *Helmholtz Centre for Environmental Research, Leipzig, Germany*.

After lunch, [Unai Pascual \(pdf\)](#), *Cambridge University, UK* talked about “**Promise, limits and alternatives to the role of valuation in the ecosystem service framework**”. He discussed various aspects of valuation of ecosystem services and the TEEB recommendation to use a pluralist framework.

In the talk “**Theory and Practice of Mapping Ecosystem Services**”, [Erik Nelson \(pdf\)](#), *Bowdoin College, USA*, presented InVEST: A Tool for Progressive Decision-Making. This suite of GIS-models deals with how biodiversity and ecosystem services value changes in environment.

More on valuation of ecosystem services was discussed in “**The SOILSERVICE approach to valuing ecosystem services: some preliminary results**” by [Mark Brady \(pdf\)](#), *Swedish University of Agricultural Sciences, Sweden*. Brady presented a background to monetary valuation of soil biodiversity and ecosystem services and presented figures showing results from modeling on decisions made by farmers and society.

Session 3 Integrating soil ecosystem services in policies and land management

The third session started with [Michael Kügler \(pdf\)](#), *EU Liaison Office German Chambers of Agriculture, Brussels* giving his talk “**From research to innovation: how to integrate advice and research via rural development policies**”. Kügler presented some useful advice on how to disseminate SoilService’s ideas and results to the agricultural world, especially farmers. He pointed at the drawbacks of limiting dissemination to publications in English and discussed the advantages of including innovation terms in suggestions to changes for farmers.

Then [Sarolta Tripolszky \(pdf\)](#), *European Environmental Bureau, Brussels, Belgium* talked about “**Raising political support for soil policies in Europe**”. Tripolszky proposed some reasons for failure of the Soil Framework Directive, and what can be changed and done instead. She also discussed the impact of lobbying.

SoilService’s own [Simon Mortimer \(pdf\)](#), *Reading University, UK* continued with “**Development of policy options to promote management of soils for multiple ecosystem services: encouraging a rounded view**” where he discussed farmer attitudes to environmental investments within agriculture.

Last speaker was *Carsten Neßhöver, Helmholtz Centre for Environmental Research, Leipzig, Germany* who gave a second talk entitled “**Biodiversityknowledge.eu - Creating a Network of Knowledge for biodiversity and ecosystem services in Europe**”.