

Session Title: Environmental monitoring to quantify ecosystem services

Conveners: Stefan Klotz

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Abstract:

The key subject of Ecosystem Services (ESS) is an emerging field in interdisciplinary research. The world-wide increase in human population, urban dynamics and rising needs for energy production and water resources are on the political and scientific agenda. It is well known that these processes lead to multiple competing demands for land, resources and other ecological services. The resulting land use changes come at a cost in the form of trade-offs between ESS such as food production, water quality and quantity, erosion control or soil fertility and biodiversity. Various exemplary assessments on regional, country, continental and global level exist, exploring different ESS and the links between land use and biodiversity and single ESS. In many studies it was summarized that informations and environmental data are missing. Advanced environmental monitoring schemes must be adapted to meet the new scientific challenges.

This session calls for contributions from Ecosystem Services Assessments as well as Long Term Ecological Research in general. Examples from the TERENO-project and the national and international LTER (Long Term Ecological Research) community are welcome. The session provides a forum to present and to discuss case studies on ESS monitoring at different spatial and temporal scales.