7th Conference of the Ecosystem Services partnership
Local action for the common good
8-12 September 2014, Costa Rica

Session: D4a-26
Title of session: Mapping Ecosystem services – learning from success and failures

Session host / primary contact person:

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Short description of the session

There is a huge number of ecosystem service mapping approaches, conceptual frameworks, indicators, quantification and spatial localisation methods. Related publications and project reports often tend to highlight successes only. However, aren't failures, problems and shortcomings important sources to acquire knowledge and experience also? In this session, we will look at the current state of the art of various attempts to map ecosystem services and to discuss cases where successes were achieved and where major deficits could be detected. Problematic fields include for example ecosystem service demand quantification, spatial supply-demand mismatches, temporal aspects, distinctions between supply potentials and actual flows, integration of biophysical and socio-economic data, scale transitions, model-map coupling or lack of practical implementation. The identification of "problematic" ecosystem services will deliver further insights for future mapping studies.

This session forms part of the conference workshop sequence organized by the ESP thematic working groups on Mapping (TWG 4) and Modelling (TWG 5). The key question: "what do we need for proper mapping of multiple ecosystem services and respective practical applications?" as well as the development of tools, guidelines and standards for improving spatial analysis of ecosystem services are the main aims of the thematic working groups.

Additional information

This session forms part of the conference workshop sequence organized by the ESP thematic working groups on Mapping (TWG 4) and Modelling (TWG 5). A strong co-operation and synergies between the workshops are planned, also referring to related products (visualisation tool, joint articles, Special Issue(s), etc.).

Format:

10:30 – 12:30 Hosts: Benjamin Burkhard, Joachim Maes, Katalin Petz, Ignacio Palomo, Louise Willemen

10:30 Benjamin Burkhard, Joachim Maes, Katalin Petz, Ignacio Palomo, Louise Willemen: Workshop introduction, overview of TWG activities and expected workshop outcomes.

10:35 Matthias Schröter et al.: Lessons learned for spatial modelling for ecosystem accounting.

10:47 Toon Spanhove et al.: From mapping to accounting – scale is everything.

10:59 Solen Le Clec'h et al.: The issues of mapping Ecosystem Services trade-offs.

11:11 Luisa Fernanda Ricaurte et al.: Mapping ecosystem functions, services and drivers of change in wetlands: A case study of science-policy interface in Colombia.

11:23 Tim Van de Voorde: Mapping urban ecosystem services in Brussels, Belgium with remote sensing and spatial analysis techniques.

11:35 Jan Volland & Rüdiger Schaldach: Comparing the supply of ecosystem services with human demand: An interdisciplinary approach in the German State of Hesse.

11:47 Monica Castro et al.: Cartography of ecosystem services: between technical neutrality and empowerment tool.

11:59 Dirk Vrebos et al.: Upstream selection of sites for ecosystem service restoration.

12:11 Benjamin Burkhard et al.: New challenges in mapping multiple ecosystem services potentials, flows and demands.

12:23 Discussion + Closing remarks

12:30 *Lunch break*

Planned Output

In co-operation with the other workshops organised by TWG 4 and TWG 5, related products include the ESP visualisation tool, joint articles, special issue(s).

Speakers:

ID	Name	Organisation	Title of presentation
71	Tim Van de Voorde	Vrije Universiteit Brussel	Mapping urban ecosystem services in Brussels, Belgium with remote sensing and spatial analysis techniques

90	Solen Le Clec'h	Université Rennes 2	The issues of mapping Ecosystem Services trade-offs
103	Jan Volland	Center for Environmental Systems Research	Comparing the supply of ecosystem services with human demand: An interdisciplinary approach in the German State of Hesse
113	Matthias Schröter	Wageningen University, Environmental Systems Analysis Group	Lessons learned for spatial modelling of ecosystem services in support of ecosystem accounting
119	Benjamin Burkhard	Kiel University	New challenges in mapping multiple ecosystem services potentials, flows and demands
237	Sander Jacobs	Research institute for nature and forest INBO	From mapping to accounting – scale is everything
246	Monica Castro	University of Lausanne	Cartography of ecosystem services: between technical neurality and empowerment tool
254	Luisa Fernanda Ricaurte López	Alexander von Humboldt Biological Resources Research Institute	Mapping ecosystem functions, services and drivers of change in wetlands: A case study of science-policy interface in Colombia
318	Dirk Vrebos	University of Antwerp	Upstream selection of sites for ecosystem service restoration.

Presentation abstracts:

26. Mapping ES – learning from success and failures (OPEN)

From mapping to accounting – scale is everything

Presenting author: Toon Spanhove
Other authors: Sander Jacobs, Toon Van Daele, Carine Wils, Marijke Thoonen, Heidi Demolder, Helen Michels, Johan Peymen, Anik Schneiders, Jan Staes, Maarten Stevens, Katrien van der Biest, Peter Van Gossum, Wouter Van Reeth, Dirk Vrebos
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The ongoing ecosystem assessment for the Flanders region and the ECOPLAN project have produced a number of spatial indicators for ecosystem services. The maps are used to fulfill target 5 on mapping and assessment of ecosystem services of the EU biodiversity strategy. Most of these indicators are based on state-of-the art models, measurement data or monitoring programs, recombined in GIS to indicate the supply, demand or use of ES. To take the 'state and trends' assessment to the next step (target 2, introduction of ES in national accounting systems), data which cannot be collected periodically or depends on complex mechanistic modeling is undesirable. Accounting systems require clear units and repeatable tables.

In this presentation, we Illustrate that the choice of (coarse versus detailed) land cover classification heavily influences the outcomes of most models, but more importantly provokes major shifts in the total regional values of ES supply. We present a method to translate fine-resolution biophysical data to a thematic scale for land cover classification which is appropriate for data-based but realistic national accounting requirements. This classification is then discussed as starting point to realize target 2 on ES accounting within the Flanders ecosystem assessment.