

## SESSION PROPOSAL

### ID T2

#### Title of session:

Global ecosystem service flows

#### Hosts:

	Title	Name	Organisation	E-mail
Host:	Prof. Dr.	Thomas Koellner	University of Bayreuth	<a href="mailto:thomas.koellner@mac.com">thomas.koellner@mac.com</a>
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Co-host:	Dr.	Nynke Schulp	VU University, The Netherlands	<a href="mailto:nynke.schulp@vu.nl">nynke.schulp@vu.nl</a>
Co-host:	Dr.	Matthias Schröter	iDiv, Germany	<a href="mailto:matthias.schroeter@idiv.de">matthias.schroeter@idiv.de</a>
Co-host	Dr.	Sebastian Arnhold	University of Bayreuth	<a href="mailto:sebastian.arnhold@uni-bayreuth.de">sebastian.arnhold@uni-bayreuth.de</a>

#### Abstract:

Currently many studies focus on mapping, modelling and valuing a set of ecosystem services for a specific region or nation. For example, the EU member states are asked to map their national ecosystem services in the framework of the Biodiversity Strategy 2020. Quite frequently those activities choose the political border as their system boundaries assuming that the regions are closed. However, these regions are typically open with respect to fluxes of matter, energy and information, and hence a multitude of ecosystem services. Regional and national studies often neglect the dependence on "overseas" ecosystem services. However, cross-border fluxes of ecosystem services can cause teleconnections between regions. Trading ecosystem services may cause detrimental effects in distant source regions. Some of these interactions between regions are directly embedded in trade flows, others cascade more indirectly through the socio-economic system, yet others are transferred through different types of environmental flows. Ultimately, policies aiming at enhancing ecosystem services in one region should not lead to ecosystem damage elsewhere. To cover this field a new ESP thematic working group "Global Ecosystem Service Flows" was installed during the World Conference in 2015 in South Africa. This group invites contributions to this session. Submissions should address open research questions in this field related to (i) goal and scope of assessments of interregional ecosystem service flows, (ii) practical guidelines for their biophysical quantification, including (spatial) modelling, and (iii) guidelines for their evaluation in terms of benefits and damages.

#### Proposed Format (duration, methods, (technical) requirements):

This session will consist of individual presentations of 15 minutes with the possibility for another 5 minutes of discussion. A plenary discussion will close the session. Total length depending on proposals, but approximately expected to be 2 hours.

#### Goals and objectives of the session:

This session aims at exchange on methods and applications how to complement regional assessments of ecosystem services with a global assessment of ecosystem flows to and from a specific region. This opens

the possibility to present work relevant for ecosystem services on material flow analysis of trade, embodied water and land, environmental footprints as well as life cycle assessment.

**Planned output / Deliverables:**

The output planned is a special issue on global flows of ecosystem services in a peer reviewed scientific journal.

**Voluntary contributions accepted:** YES