

SESSION DESCRIPTION

ID: T11

Interregional flows of ecosystem services / nature contributions to people

Day: Wednesday

Time: 11:00 – 12:30

Hosts:

	Name	Organisation	E-mail
Host:	Thomas Koellner	University of Bayreuth	thomas.koellner@uni-bayreuth.de
Co-host(s):	Nynke Schulp	VU University	nke.schulp@vu.nl
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Abstract:

On this one planet a multitude of ecosystem services (ES) / nature contributions to people (NCP) are flowing from regions in which they are provided to regions in which they are utilized. Such ES/NCP flows happen from landscape to regional to global scale. Mechanisms include i) international trade of food, feed, and fibers, ii) biophysical flows of regulating services, iii) flows mediated through migrating or dispersing species, and iv) information flows related to cultural services. The recent pandemics and geopolitical conflicts show the vulnerability, but also the necessity of the sustainable management of such interregional telecoupling. The European Union`s Regulation on Deforestation-free products from 2023 is a step towards this. Still, regional and national studies still often neglect the dependence on distant ES/NCP and regularly disregard off-site effects in provision and use of ES/NCP. However, it is important to consider interregional flows of ES/NCP as they can cause telecouplings between regions. Through such telecouplings, a change in supplying ecosystems can affect ES/NCP beneficiaries in distant demand regions, but also the other way around ES/NCP demand can cause environmental problems in distant supply regions. For instance, inequalities originated in telecoupled systems could lead these systems to fall into maladaptive situations or socio-ecological traps. Ultimately, policies aiming at enhancing ES/NCP in a region should not lead to ecosystem damage elsewhere. To cover this field the ESP thematic working group "Global Ecosystem Service Flows (TWG 11)" was installed during the World Conference in 2015 in South Africa.

This group invites contributions to this session. Submissions should address open research questions related to (i) quantitative assessments of interregional ES/NCP flows and

telecouplings, incl. (spatial) and long-term modelling of sending and receiving regions, and accounting for ES/NCP and biodiversity embedded in these flows, (ii) quantification of drivers behind these different interregional flows (iii) the evaluation of such flows in terms of effects, i.e. benefits, damages, inequalities and sustainability both in sending and receiving regions, (iv) motivations and perceptions of different actors involved (v) options to better govern interregional conservation of biodiversity and management of ES/NCP. We welcome studies from both broad range of disciplines investigating effects of telecouplings from a biophysical as well as from a social/economic perspective in all types of habitats (i.e. marine, freshwater and terrestrial ecosystems). Specifically, linkages to the conference theme OneHealth are encouraged.

Goals and objectives of the session:

This session aims at exchange on methods and applications how to complement regional assessments of ES/NCPs with an interregional assessment of ecosystem flows to and from a specific region. This opens the possibility to present work relevant for ES/NCP on material flow analysis of trade, embodied water and land, environmental footprints as well as life cycle assessment. This session should also bring together researchers from different disciplines investigating inequality effects, valuation and sustainable managements of telecoupling from a social, economic and/or ecological perspective.

Planned output / Deliverables:

[Click here to enter text.](#)We will discuss the creation of a focus group working towards a joint position paper specifically on inequalities, power asymmetries, social-ecological-economic effects, etc. resulting from interregional ecosystem service flows.

Session format:

We have one session with 1.5 h, organized in seven presentations (10 min talk + 2 min for questions).

Voluntary contributions accepted:

Abstracts of invited speakers

Related to ESP Working Group/National Network:

TWG 11- Global ES Flows