SESSION DESCRIPTION

ID: T7d

Dynamic Tools for Valuing Ecosystem Services: From network-based approach to broader applications

Hosts:

	Name	Organisation	E-mail
Host (s):	Nivedha Elango	HAEDES (https://haedes.eu/) (also a PhD student at the University Gent)	nivedha.elango@haedes.eu
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Abstract:
This session explores innovative approaches to ecosystem services valuation that integrate economic logic with dynamic system modelling.

The focus would be on the use of a scenario-based decision-support tool, designed to capture interactions and dynamics, actor behaviour, and policy-relevant outcomes in complex socio-ecological systems.

The session would welcome case studies and methodological advances that apply these or similar tools to real-world decision contexts, preferably under multi-hazard scenarios, land-use change, or climate adaptation planning. Contributions may include valuation logic, cost-benefit frameworks, spatial prioritisation, stakeholder integration, or applications in agriculture, water systems, or ecological restoration.

The session aims to demonstrate how dynamic models can enrich the economic assessment of ecosystem services, enabling planners and policymakers to account for uncertainty, feedback, and trade-offs. By bringing together economists, ecologists, environmentalists, modellers, practitioners, and policy actors. The session aims to foster deeper dialogue on how tools can support ecosystem service valuation for sustainable and inclusive decision-making.

Goals and objectives of the session:

Session Goals

- To advance the integration of economic valuation methods with dynamic systems modeling in the context of ecosystem services.
- To promote interdisciplinary exchange among researchers, practitioners, and policymakers working on socio-ecological systems.
- To support the development and application of decision-support tools that inform sustainable and inclusive environmental planning under conditions of uncertainty.

Session Objectives

- Present and discuss case studies using scenario-based tools for ecosystem service valuation.

- Highlight methodological innovations in valuation logic, cost–benefit analysis, spatial prioritization, and stakeholder integration.
- Explore applications of modeling tools in areas such as agriculture, water systems, land-use planning, and ecological restoration.
- Facilitate dialogue on incorporating feedbacks, trade-offs, and dynamic system behavior into policy-relevant valuation processes.
- Identify practical pathways for improving decision-making in the face of multi-hazard risks and climate adaptation challenges.

Planned output / Deliverables:

- Comparative insights into dynamic valuation methods and their applications
- Shared experiences using tools in stakeholder-rich planning environments
- Identification of integration opportunities with ecosystem accounting and governance
- A roadmap for embedding agent-based and scenario-driven tools in EU policy frameworks

Session format:

We propose a standard oral presentation session consisting of 4 to 6 research contributions, each allocated approximately 15–20 minutes, including time for brief questions. The session will conclude with a 10–15 minute moderated discussion to encourage interaction among presenters and attendees. This format is designed to facilitate the exchange of ideas around valuation methods and tool-based applications, providing opportunities for dialogue, cross-comparison, and critical reflection

Voluntary contributions accepted:

Yes, I allow any abstract to be submitted to my session for review

Related to ESP Working Group:

TWG 7 – Economic & Monetary valuation