

SESSION DESCRIPTION

ID: T17a

Gross Ecosystem Product: towards policy applications and inclusive measures

Hosts:

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Abstract:

Natural Capital Accounting (NCA) provides a systematic framework to measure changes in the stock and condition of ecosystems while integrating the flow and value of ecosystem services into standardized accounting and reporting systems. Within this framework, Gross Ecosystem Product (GEP) has emerged as a key aggregate monetary measure that captures the total value of final ecosystem goods and services generated within a defined area over a specific period—functioning as an ecological counterpart to Gross Domestic Product (GDP).

Since its introduction by Zhiyun Ouyang in 2013, GEP accounting has gained significant traction in both research and policy contexts. It is increasingly used to assess ecosystem sustainability, evaluate the capacity of ecosystems to support socio-economic systems, and gauge the ecological performance of conservation and restoration initiatives. Applications in ecosystem management—such as protected area planning, ecological conservation redlining, and restoration projects—illustrate its growing policy relevance.

This session aims to take stock of the current state of the art in GEP and NCA applications and explore pathways for their integration into inclusive and macroeconomic modeling frameworks. By examining the dynamics of GEP and its role in reflecting nature's contribution to economies, we seek to advance aggregate accounting measures that ensure nature is adequately represented in decision-making.

We invite contributions that address the following questions:

- What are the latest scientific advancements in GEP based on Natural Capital Accounting?
- How do GEP and other inclusive measures inform policies for sustainable futures within planetary boundaries?
- How can net GEP account for natural capital depletion and degradation?
- What are the methodological frontiers in embedding natural capital and GEP into macroeconomic models?

This session provides a platform for exchange among scholars and practitioners working on GEP, ecosystem services, ecosystem-based management, and ecosystem sustainability, fostering dialogue on how to advance aggregate accounting measures for nature within economic systems.

Goals and objectives of the session:

- To enhance the methodology of GEP accounting and to promote its application in ecosystem management in more countries

- To outline the state of play of NCA at global level and in relation to macroeconomic indicators such as GEP
- To set agenda for going beyond the current scientific frontier in natural capital related to inclusive income and modelling.

Planned output / Deliverables:

- Position/ opinion paper discussing the goals and objectives of the session, based on knowledge shared among presenters and participants.
- A task force will be established to advance the science and policy application of Gross Ecosystem Product (GEP)

Voluntary contributions accepted:

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

Related to ESP Working Group:

TWG 17 – ES Accounting & Greening the economy