

SESSION DESCRIPTION

ID: T18a

Transformative laws for a nature-positive Europe: assessing the legal integration of ecosystem services

Hosts:

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Abstract:

Biodiversity loss, whether arising from imminent polluting activities or from cumulative, diffuse anthropogenic pressures, poses a major challenge to contemporary legal systems. International, regional and national legal frameworks are increasingly recognising that tackling this challenge requires not only conservation, but also proactive restoration of ecosystems. In this regard, the ecosystem-services (ES) framework offers a powerful bridge between science, policy and law.

Legal scholars have long urged the law to adopt an ecosystem services approach. For instance, James Salzman (2005) has noted that, despite their obvious importance, ecosystem services have largely been overlooked by environmental laws and policies. Similarly, Ruhl and Salzman (2007) explored how common-law principles (such as the public trust doctrine or nuisance) might be adapted to protect services rather than functions alone. Mertens et al. (2012) initiated a discussion on the use of the ES framework for biodiversity protection in the EU. More recently still, Colognese and Granato (2024) have described how the concepts of natural capital and ecosystem services are gaining traction in European and Italian legal systems.

According to the European Commission, the ES framework should be applied at least at two key stages:

- Assessment of biodiversity and environmental loss: determining which ecosystem services have been degraded or lost as a result of human activity, and evaluating the implications for ecological integrity and human wellbeing.
- Planning for biodiversity restoration and conservation: deciding which ecosystem services should be conserved and which ones restored, where and how conservation and restoration of ecosystem services should occur.

In the first stage, legal and scientific actors must ask: what services have been lost, how significant is the loss, and what are the implications for biodiversity and the communities that depend on it? In the second stage, they must address: which ecosystem services are critical for recovery and long-term resilience, and how can conservation and restoration be implemented within a legally enforceable and scientifically informed framework?

The ES framework can serve as a legal interpretive lens through which to assess the adequacy of existing norms, reorienting environmental law from the protection of 'nature' in the abstract to the maintenance of effective, service-providing functions that sustain biodiversity and human wellbeing. Yet, many legal regimes only partially internalise these insights. While ecological and economic disciplines have advanced rapidly, legal scholarship has lagged behind in addressing the value of ecosystem services. Moreover, embedding this approach in the law involves several challenges, such as establishing dynamic ecological baselines, addressing data limitations and the complexity of ecological modelling, balancing trade-offs between restoration and conservation goals, and designing long-term monitoring systems that are cost-effective and legally viable. These challenges underscore the need for robust legal and methodological guidance. Public authorities, regulators, courts, companies and practitioners require standardised tools and procedures to incorporate the ES framework into biodiversity-related legal processes. Aligning legal instruments with ecosystem service-based assessments can ensure that decisions lead to measurable and lasting benefits for biodiversity, ecosystems and society.

For the reasons above, this session invites contributions that critically examine how and to what extent the ES framework is already embedded in legislation and case law, and/or how it could be more effectively implemented. The aim of this session is to open a discussion that explores whether existing legal frameworks truly deliver the measurable ecological and social benefits promised by the ES framework. By comparing doctrinal interpretations and practical experiences across jurisdictions, participants will collectively evaluate the effectiveness of the current legal framework for ecosystem service-based environmental conservation and restoration.

Presentations may, for example, illustrate and assess:

- the degree to which EU and national instruments advance (or fall short of) the coherent integration of ecosystem services into environmental laws;
- whether environmental liability, impact assessment and natural capital accounting regimes embed an ES framework;
- how courts interpret damage and restoration obligations in terms of lost or degraded services;
- the interaction between the ES concept and core legal notions such as causation, proportionality, or ecological baselines.

Goals and objectives of the session:

The aim of this session is to contribute to the ongoing debate about how the ecosystem services framework can help to implement biodiversity laws relating to conservation, restoration and liability. The ecosystem services approach provides a structured method of assessing the causes and consequences of biodiversity loss, and identifying effective responses.

More specifically, this session will gather case studies, practices, and theoretical perspectives on the employment of ecosystem services within legal frameworks for evaluating biodiversity losses and implementing conservation and restoration policies. The session will also provide a platform for proposing concrete tools, guidelines and standards for integrating ecosystem services into legal and policy frameworks. To support the integration of ecosystem services into legal decision-making processes for biodiversity conservation and restoration, this session will encourage discussions around the harmonisation of definitions and classifications, the standardisation of valuation and monitoring approaches, the development of accessible, authoritative data systems and the alignment of ES methodologies with national and international legal obligations.

Planned output / Deliverables:

Best practices, check-lists, recommendations for model laws, guidelines for the judicial interpretation of environmental laws embedding the ecosystem services framework. A Special Issue collecting the best papers presented.

Session format:

Standard session (presentations)

Voluntary contributions accepted:

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

Related to ESP Working Group:

TWG 18 – Governance & Institutional aspects