

# ESP 11 World Conference

## “From global to local ecosystem services: pathways to Nature-based Solutions inspired from Down Under”

23-27 June 2025 | Darwin, Australia

### SESSION DESCRIPTION

ID: T13

**From Interaction to Restoration: Pathways to Nature-Based Solutions through Cultural Ecosystem Service (CES) in the Carbon Era**

**Hosts:**

	Name	Organisation	E-mail
<b>Host:</b>	Yuehan Dou	Xi'an Jiaotong - Liverpool University	yuehan.dou@xjtlu.edu.cn
<b>Co-host(s):</b>	Tong Li	School of Agriculture and Food Sustainability, The University of Queensland	tong.li1@uq.edu.au
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**Abstract:**

The Decade on Ecosystem Restoration (2021–2030) underscores the critical need for restoration strategies that address global environmental challenges while enhancing biodiversity, human well-being, and sustainable livelihoods. Cultural Ecosystem Services (CES)—non-material benefits such as recreation, aesthetics, and a sense of place—are pivotal for linking ecological outcomes to societal values and supporting communities' livelihoods dependent on restored ecosystems. However, CES remain underexplored in restoration science, with assessments often prioritizing biophysical and economic metrics over social and cultural dimensions.

To build truly inclusive and effective restoration strategies, it is essential to consider the interactions between human communities and their environments within social-ecological systems. Soil carbon management, particularly through improving soil organic carbon (SOC) stocks, plays a pivotal role in restoration by enhancing soil health, increasing carbon sequestration, and supporting ecological functions that underpin CES, such as aesthetic landscapes, cultural heritage, and sustainable livelihoods. This integration of CES and SOC provides a novel perspective, highlighting how carbon management not only addresses ecological challenges but also enriches cultural and social values in restoration practices, offering a comprehensive essential framework for understanding the complex interplay between landscapes and human perceptions, ecosystem services and human well-being, enabling restoration efforts to align with community priorities and preferences.

We invite presentations that address but are not limited to the following themes:

- Innovative methodologies for assessing CES in restoration contexts, including spatial, participatory, and perception-based approaches.
- Case studies demonstrating the integration of CES in Nbs, focusing on public engagement and stakeholder collaboration.
- Theoretical advancements on the response mechanisms of CES and SOC to restoration interventions.

- Strategies for addressing conflicts or trade-offs between ecological objectives and cultural values in restoration projects.
- The Role of carbon management in enhancing community cultural identity and engagement
- Pathways for integrating carbon management and cultural landscapes in restoration practices

### Goals and objectives of the session:

This session aims to explore the role of CES in advancing NbS by examining how restoration projects can better integrate cultural and social values into planning, implementation, and evaluation. By showcasing diverse perspectives and practices, this session seeks to position CES as a core component of NbS, promoting restoration strategies that are not only ecologically effective but also culturally and socially inclusive. An innovative focus will be placed on the intersection of CES and SOC management, highlighting the importance of sustainable land use practices in achieving restoration outcomes. By integrating SOC as a key indicator of ecosystem health, this session seeks to promote restoration strategies that support biodiversity, cultural values, and community livelihoods.

By bringing together interdisciplinary expertise, this session aims to highlight innovative approaches and actionable strategies that enhance the effectiveness of restoration practices. Emphasis will be placed on sharing practical insights and lessons learned, encouraging participants to exchange knowledge, address challenges, and co-create solutions that align ecological restoration with cultural and social priorities. Contributions are welcomed from researchers, practitioners, and policymakers working across disciplines to bridge the gap between ecosystem restoration, carbon management and human well-being.

### Planned output / Deliverables:

1. Special Journal Issue: Propose a special issue in a peer-reviewed journal dedicated to the session's theme, showcasing high-quality contributions that explore the integration of CES and SOC management into NbS and ecosystem restoration. Submissions will prioritize interdisciplinary approaches that bridge cultural, social, and ecological dimensions, emphasizing their role in advancing sustainable livelihoods and addressing global restoration challenges.

2. Thematic Working Group Engagement: This session will propose the formation of a dedicated sub-group under the ESP Thematic Working Group "TWG 13: Role of Ecosystem Services in Ecosystem Restoration," focusing on the interaction of SOC management, CES, and community livelihoods. The sub-group will explore policy perspectives and actionable strategies for integrating these dimensions into restoration practices.

3. Dissemination of Outcomes: Develop a perspective paper based on the intensive discussions and diverse insights shared during the session. This paper will capture key findings, innovative approaches, and emerging research priorities, with an emphasis on the role of SOC and CES in fostering sustainable livelihoods through restoration practices. co-authored with session participants to ensure a comprehensive and interdisciplinary viewpoint, contributing meaningfully to the global dialogue on sustainable ecosystem restoration and carbon management.

### Session format:

There will be 8 to 10 regular presentations, each lasting approximately 15 minutes, followed by a group discussion to gather perspectives and opinions. The total duration is expected to be between 2.5 to 3 hours.

### Voluntary contributions accepted:

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

### Related to ESP Working Group:



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