Session 4: Stakeholder engagement in complex ocean multilevel governance settings

Wed. 14 May (UTC+8) 13:30-15:00

Convenor: Marta Ballesteros; **Rapporteur**: Andrea Rivas-Navarro

Number of participants: 6 (5 oral presentations, 1 speed talk)

(13:35-13:45) **Introduction**:

The session explored the transformative role of stakeholder engagement in ocean governance, with a focus on its potential to improve decision-making, legitimacy and knowledge co-production. It was structured in three parts: (1) conceptual and methodological perspectives; (2) applied case studies; and (3) participant reflections.

Key framing questions included:

- How can we better understand and structure participation accross different levels of governance?
- What priorities should guide future research in this field?

Priming ideas:

- The ocean is becoming increasingly crowded and complex: socially, economically and politically. From deep-sea mining to renewable energy transitions, and from overlapping jurisdictions to diverse stakeholder expectations, governance frameworks are under pressure.
- There is still no unified understanding of what stakeholder engagement should entail in marine contexts, making this discussion both timely and necessary.

ORAL PRESENTERS

(13:45 – 14:05) **Xiang Gao** - The role of epistemic community on ocean governance

- Epistemic communities (transnational expert networks) can shape marine policy by promoting shared knowledge, values and regional cooperation (i.e. MAP, IASC, PEMSEA).
- Their incluence depends on internal coherence and trust-building across national and political divides.
- Epistemic communities promote scientific collaboration and data sharing, facilitating the spread of a shared knowledge base. How to establish such communities remains an open research question.

Input from audience: this communities are jeopardized by national contexts (geopolitical contexts).

(14:08 – 14:22) **Daisy Amelia Taylor** (online) - Understanding stakeholder engagement in marine and coastal Nature-based Solution: lessons from a UK case study

- Local resistance stemmed from disconnects between scientific narratives and community perceptions. Effective engagement requires clear communication, trust-building and inclusive dialogue.
- Environmental goals must align with socioeconomic realities. Long-term success hinges on shifting social norms and fostering stronger human-nature connections.

QUESTION: comparing both presentations. The members of the epistemic community seems to be all homogeneous, while in the second presentations looks really heterogenous. Which qualities make them similar to each other?

Answer: shared principles.

THE SESSION WENT OFF FOR almost 2 minutes.

(14:29 – 14:41) **Yurong Yu & Ricardo Roura (online)** - Reflections on environmental non-governmental organizations engagement in Antarctic governance

- Environmental NGOs face limited access and structural barriers in Antartic governance, relying on long-term diplomatic relationships and scientific credibility to influence policy.
- Despite institutional constraints, they promote MPAs and push for transparency and inclusivity in a rapidly changing geopolitical and climatic context.

Bring back the question to Daisy from before.

Both presentations referred to remoteless and disconection. The rest of the society could be disnected to.

How to create the engagement? What human characteristics?

(14:43 – 14:58) **Mingbao Chen** (online, rescheduled) - Using artificial intelligence hypergraphs to assess higher-order socio-oceanographic interactions in ocean sustainability

- Introduced a novel AI based hypergraph tool to model high order human-ocean interactions using n-dimensional spatial logic.
- Future work includes developing dynamic simulation frameworks and explainable AI tools to optimize policy in complex socio-ecological systems.

Mini coffe break because time is over.

Input from audience: thoughts on IA modelling for ocean governance. Use of big data, understand patterns, interesting tool to capture that. Context studies, how can we bring them all in.

* All agree to expand 5-10 minutes more *

POSTER PRESENTERS – SPEED TALKS

(15:09 – 15:12) **Andrea Rivas-Navarro (online)** - Strategies for preventing maladaptation to climate change: Lessons learned from Spanish Atlantic and Mediterranean Fisheries

- Offered insights from Spanish fisheries, focusing on regional differences from workshops conducted with scientific and fishing communities.

 (15:12 – 15:18) **Marta Ballesteros** - Stakeholder engagement in the International Council for the Exploration of the Sea (ICES)

At the end for being the convenor of the session. Had to rush time.

- Proposed a shift from identify-based 'profiles' to function-based 'roles' in stakeholder engagement, impacting how trust and legitimacy are constructed.
- This reframing challenges traditional participation models and offers insights into power dynamics in co-produced knowledge systems.

No time left for the discussion.

SUMMARY

Session 4 explored stakeholder engagement in multilevel ocean governance through conceptual insights and diverse case studies. Presentations emphasized the importance of inclusive, trust-based and context-sensitive engagement strategies. Whether through epistemic networks, NGOs or digital modeling, all contributions highlighted that stakeholder processes are shaped by both social and institutional dynamics. The session underscored the need for clearer communication, long-term collaboration and adaptive frameworks to bridge science, policy and local realities.

Discussions highlighted what makes engagement in ocean-related topics unique: Disconnection between communities and the ocean; remoteness (geographically and psychologically; decisions made far from affected ecosystems, often in opaque forums); fluid boundaries; scale-fluid Complexity: level, time, jurisdiction; and uncertainty.

Priority areas for future research include:

- Changing power-dynamics in processes and how this impacts engagement across governance scales.
- Bridging knowledge across cultural contexts
- Mapping Trust Networks in Ocean Governance. Understanding how trust is built, maintained, and challenged among diverse actors in fragmented governance systems.
- Understanding Collaborative vs. adversarial participation

Suggestions for IMBeR 3.0 from this session:

- Improve time management: several presentations were rushed or cut short, limiting discussion and audience interaction. Consider reducing the number of talks or extending session duration.