

Grand Challenge III

Improving and achieving sustainable ocean governance

The Challenge: To improve linkages between science, policy and society to mitigate and adapt to global change, and transition towards sustainable ocean governance.



The SCOR review of IMBeR was completed in December 2021 and has endorsed a Grand Challenge III focus on three research priorities with key deliverables to be achieved by the IMBeR community.

Grand Challenge III Priorities – 2022-2025

1. *Develop knowledge on best practices for multilevel governance approaches to ocean climate adaptation and mitigation*
2. *Develop understanding on key ingredients for transformation towards more sustainable, equitable and inclusive governance approaches to fisheries and aquaculture*
3. *Support implementation of post-2020 biodiversity targets for marine spatial planning and marine protected areas*

1. Develop knowledge on best practices for multilevel governance approaches to ocean climate adaptation and mitigation

With adoption of the Paris Agreement in 2015, climate adaptation and mitigation have been placed at the forefront of ocean governance challenges with two overarching questions to be addressed through Grand Challenge III by 2025. How are regions, countries and local communities adapting to shifting marine species and ecosystems, and what best adaptive governance practices can be identified? What is the status of scientific and technical knowledge regarding potential marine options for climate mitigation and what ocean governance responses are needed?

How regional fisheries management organizations and regional sea programmes around the globe are considering climate change in their scientific and management processes will be a particular focus as IMBeR is well-placed through its regional programmes to assess how climate adaptation is being addressed in transboundary contexts.

Key deliverables include

1. Special Issue in *Frontiers in Marine Science*, "[Ocean Governance and Climate Adaptation: Comparing Responses, Charting Future Courses](#)"
2. Policy paper on potential marine carbon removal approaches for climate intervention (drawing from [IMBIZO 6 workshop](#) in 2021)
3. Workshop or session at the IMBeR Open Science Conference (2024): "Climate Change and Transboundary Ocean Governance: Is Science Translating into Adaptive Practice?"

2. Develop understanding on key ingredients for transformation towards more sustainable, equitable and inclusive governance approaches to fisheries and aquaculture

Fisheries and aquaculture provide employment to almost 60 million people across the globe and produce around 179 million tons of fish for the world ([FAO, 2020](#)). Given the importance of the fisheries sector economically and socially, considerable research has been conducted on fisheries governance at multiple levels, but less work is available on governance of the growing aquaculture sector. Moving principled governance in fisheries and aquaculture from paper into effective practice

continues to be a challenge and so this objective will address three implementation questions. How are key sustainability principles, such as precautionary and ecosystem approaches and social equity, being applied (or not) at regional, national and local levels? What are the major governance constraints? How might law and policy frameworks be improved?

Key deliverables include

4. IMBIZO 7 workshop: “Putting Sustainability Principles into Practice in Fisheries and Aquaculture: Governance Progressions and Challenges”
5. Book publication with main messages also shared in a policy brief

3. Support implementation of post-2020 biodiversity targets for marine spatial planning and marine protected areas

Marine spatial planning (MSP) intersects with governance in that it is a public process of analysing and allocating the spatial and temporal distribution of human activities in the marine biosphere to achieve ecological, economic and social objectives. Similarly, the engagement of local stakeholders is critical to achieve conservation objectives of marine protected areas (MPAs), especially in establishing protective measures and ensuring compliance. New targets for expanding the application of MSP and the coverage of MPAs by 2030 are expected to be adopted under the Convention on Biological Diversity in 2022 while a new international instrument on the conservation and sustainable use of marine biodiversity beyond national jurisdiction, still under negotiation, promises to provide a framework for integrated planning and establishment of MPAs on the high seas. Grand Challenge III will address key governance questions in the wake of the new responsibilities and institutional arrangements. For example, how are countries and regions proposing to implement the global targets? What are the roles of scientists and stakeholders in identifying and promoting MPAs and other effective area-based conservation measures? Are national laws and policies up to the task of ensuring social equity and justice in new protected and conservation area designations? Will international and regional organizations and arrangements cooperate in strengthening high seas governance?

Key deliverables include

6. Workshop or session at IMBeR Open Science Conference (2024): “Meeting the Post – 2020 Marine Biodiversity Targets: Looking for the Governance We Need”
7. Research paper providing clear guidance on how MPAs and MSP might be advanced at national levels through law and policy strengthenings in order to meet the Convention on Biological Diversity targets.

Progress to these three priorities

The three priorities will be progressed through interdisciplinary workshops/sessions with IMBIZO 7 and the IMBeR *Future Oceans 3* Open Science Conference being the main venues.

Challenge connections and delivery

The Grand Challenge III is linked to the other IMBeR Grand Challenges, Innovation Challenges (4, 5 & 6), [Regional Programmes](#) and [Working Groups](#) with an overall goal of translating marine biosphere modelling and projections into multilevel ocean governance responses.

IMBeR is an international network that facilitates interdisciplinary marine research within three interconnected Grand Challenges in order to achieve sustainable ocean governance for the benefit of society. Sign up to IMBeR via <http://www.imber.info> to benefit from networking, mentoring and collaborative opportunities with world-class natural and social scientists and practitioners.



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