LME23

PARIS, FRANCE • 3-5 June 2024















23rd ANNUAL CONSULTATIVE MEETING ON

LARGE MARINE ECOSYSTEMS AND COASTAL PARTNERS (LME23)

3 – 5 June 2024

UNESCO Headquarters, Paris, FRANCE

Summary Report



June 2024

For bibliographic purposes this document should be referenced as: GEF IW: LEARN. 2024. Summary Report of the 23 rd Annual Consultation Meeting of Large Marine Ecosystems and Coastal Partners (LME23): ""Advancing LME consultations to respond to global challenges through transformative actions and lasting impacts". 3-5 June 2024. Paris, France.
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List of Acronyms

ABNJ Areas Beyond National Jurisdiction

ADB Asian Development Bank

ASCLME Agulhas and Somali Current Large Marine Ecosystem

ATSEA Arafura and Timor Seas Ecosystem Action
BBNJ Biodiversity Beyond National Jurisdiction

BNA Blue Nature Alliance
BSC Black Sea Commission

CAF Development Bank of Latin America
CBD Convention for Biological Diversity

CCA Causal Chain Analysis

CLME Caribbean and North Brazil Shelf Large Marine Ecosystems

COBSEA Coordinating Body on the Seas of East Asia

COP Conference of the Parties

DIM Data and Information Management
DPSIR Drivers-Pressures-State-Impact-Response

EAF Ecosystem Approach to Fisheries

EAFM Ecosystem Approach to Fisheries Management

EBM Ecosystem-Based Management

EBRD European Bank for Reconstruction and Development

EEZs Exclusive Economic Zones

EPR Extended Producer Responsibility

FAO Food and Agriculture Organization of the United Nations

GBF Global Biodiversity Framework

GDP Gross Domestic Product
GEF Global Environment Facility

GEFSec GEF Secretariat

GESAMP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection

GFCM General Fisheries Commission for the Mediterranean

GIA Global Industry Alliance

GoT Gulf of Thailand

IAPB International Advisory Panel on Biodiversity Credits -

IAS Invasive Aquatic Species

ICZM Integrated Coastal Zone Management

IDDRI Institut du Développement Durable et des Relations Internationales

IMO International Maritime Organization
IMTA Integrated MultiTrophic Aquaculture

IPs Integrated Programs

IUCN International Union for Conservation of Nature

IUU Illegal, Unreported, and Unregulated

IW International Waters

IW:LEARN International Waters Learning Exchange and Resource Network.

IWC10 Tenth International Waters Conference

LMEs Large Marine Ecosystems

MDBs Multilateral Development Banks

MEA Multilateral Environmental Agreement

MMA Marine Managed Areas
MPAs Marine Protected Areas
NAPs National Action Plans
NbS Nature-based Solutions

NDCs Nationally Determined Contribution NGOs Non-Governmental Organizations

NOAA National Oceanic and Atmospheric Administration

OCM Ocean Coordination Mechanism

OECMs Other Effective Conservation Measures

PEMSEA Partnerships in Environmental Management for the Seas of East Asia

PES Payment for Ecosystem Services
PSE Private Sector Engagement
PSSA Particularly Sensitive Sea Area
RBOs River Basin Organizations
RCU Regional Coordination Unit

RFMOs Regional Fisheries Management Organizations

RSC Regional Seas Convention RSPs Regional Seas Programmes

S2S Source-to-Sea

SAP Strategic Action Programme

SCS South China Sea

SDGs Sustainable Development Goals
SIDS Small Island Developing States
SOPs Sustainable Ocean Plans

SSC Sargasso Sea Commission

STAP Scientific and Technical Advisory Panel
TDA Transboundary Diagnostic Analysis
UNDP United Nations Development Programme
UNEP United Nations Environment Programme

UNEP/MAP UNEP/Mediterranean Action Plan

UNESCO United Nations Educational, Scientific and Cultural Organization
UNESCO-IOC Intergovernmental Oceanographic Commission of UNESCO
UNFCCC United Nations Framework Convention on Climate Change
UNIDO United Nations Industrial Development Organization

UNOC UN Ocean Conference

UNOPS United Nations Office for Project Services
WESTPAC IOC Sub-Commission for the Western Pacific

WWF World Wildlife Fund

Executive Summary

- 1. The 23rd consultation meeting on the Large Marine Ecosystems (LME23) brought together the LME community for its annual consultation that sustains the global network of leaders and institutes managing the ecosystems in marine areas. This forum is vital to foster collaboration, create a global network of coastal and marine practitioners and facilitate the exchange of knowledge resources, scientific tools, and innovations. The title of this year's meeting was "Advancing LME consultations to respond to global challenges through transformative actions and lasting impacts".
- 2. The two-day meeting took place on 3-5 June 2024 at the UNESCO Headquarters in Paris, France. Around 65 participants attended the meeting, representing the GEF portfolio, implementing and executing agencies, regional organizations, non-governmental organizations (NGOs) and other partners. The meeting set-up included presentations, facilitated panel discussions, interactive sessions and break-out group discussions. The LME23 meeting was followed by a back-to-back workshop on Data and Information Management (DIM) on 5 June in the afternoon.
- 3. The specific objectives of the LME23 meeting were to:
 - Review progress in regions through marine and coastal projects funded by the Global Environment Facility (GEF), disseminating best practices, and discussing emerging issues requiring common responses;
 - Consult the LME community on the progress of the work on updating the LME concept and strategy;
 - Share the latest science, innovation, and knowledge from the ocean science community;
 - Further elaborate on integrated approaches in the management of LMEs, such as Sustainable Ocean Plans (SOPs), source-to-sea (S2S) collaboration and inform on the status of GEF-8 Integrated Programmes (IPs);
 - Consolidate inputs to the Tenth International Waters Conference (IWC10) on sessions related to marine and coastal issues, other key events and processes, e.g. the United Nations Ocean Conference (UNOC3) process and help shape strategic priorities for the GEF-9 replenishment cycle;
 - Inform on the status of the Data and Information Management (DIM) workstream and brainstorm on the next steps.
- 4. During the opening session, the participants were warmly welcomed through a series of opening remarks acknowledging the longstanding LME community and portfolio. Although the LME concept was first developed by NOAA in 1984, its innovative nature remains relevant today, especially with the new opportunities presented by the Biodiversity Beyond National Jurisdiction (BBNJ) Treaty, which offers a chance to rethink and evolve the LME framework. The LME community was encouraged to identify and

foster links to global and regional environmental processes, as a way to help implement and deliver multilateral environmental agreements (MEAs). The opening remarks put an emphasis on the importance of *delivering* actions and impacts on the ground.

- 5. The first thematic session highlighted the **progress in the LME implementation** in terms of new developments, products, achievements, opportunities and challenges in a number of showcased GEF and non-GEF International Waters (IW) projects. Examples of shared best practices included new regional governance approaches, roundtable dialogues/special fora on pertinent topics e.g. citizen science, and the endorsement of SAP at the Ministerial level showing strong commitment for future actions. The updated annotated bibliography (2017-2023), drawing from the results of 110 projects across 22 LMEs since 1994 and spearheaded by Dr. Kenneth Sherman himself, was announced as a key achievement for the benefit of the LME community.
- 6. The session on **opportunities and challenges for advancing LMEs** featured presentations and discussions on leveraging science, integrated approaches and synergies with regional processes.
 - i. The LME community has a significant opportunity to leverage scientific data, studies, innovation, and relevant partnerships, especially through initiatives like the Ocean Decade, with the potential to have LME projects endorsed as Actions under the Decade. The Scientific and Technical Advisory Panel (STAP) of GEF plays a critical role in providing independent scientific and technical advice to the GEF Council, ensuring the scientific rigor and relevance of LME projects. Awareness of STAP's role is essential for designing and advising projects. The meeting requested for GEF to support a Medium Size Project to review the current science used in GEF projects, particularly focusing on stress reduction and status indicators.
 - ii. Integrated approaches that emphasize cross-sectoral coordination and upstream-downstream cooperation are key, with an emphasis on recognizing upstream actors in LME projects across the source-to-sea continuum. Future LME meetings should consider inviting more upstream actors, including River Basin Organizations (RBOs), to strengthen these collaborations.
 - iii. The scale and scope of IW and regional seas call for integrated, source-to-sea approaches, fostering environmental diplomacy.
 - iv. LME partners were encouraged to contact lead GEF agencies to explore further coordination on GEF-8 IPs relevant to LMEs.
- 7. The next session on **From LMEs to high seas** highlighted that the concept of connectivity is crucial not only within and beyond Areas Beyond National Jurisdiction (ABNJ) but also in a vertical sense, spanning different levels of governance and ecosystems. It is essential to recognize the interconnections that exist across oceanic and coastal systems, where the effects in one area can have repercussions in another, especially in the context of transboundary ecosystems. The importance of considering jurisdictional responsibilities cannot be overstated, and this requires collaboration through intergovernmental

agreements, such as those governed by the International Maritime Organization (IMO), International Seabed Authority (ISA), Regional Fisheries Management Organizations (RFMOs), and Regional Seas Programs (RSPs). These agreements are pivotal in defining the regulatory and management frameworks that ensure the sustainable use of marine resources while protecting biodiversity. By incorporating a holistic understanding of connectivity, both horizontal (across different geographical spaces) and vertical (across levels of governance), effective management of marine ecosystems can be achieved, ensuring that responsibilities and actions are well-coordinated and aligned across sectors and regions.

- 8. The importance of **sustaining results and impacts of LME projects** was underscored in a dedicated session. Strong and relevant examples within the LME community were presented, demonstrating how to leverage project outcomes to ensure ongoing impact and sustainable results. The insights and recommendations shared during the session were carefully collected and synthesized into this meeting report, providing a comprehensive overview of the key takeaways and strategies for enhancing long-term sustainability across LME projects. The key strategies that emerged include:
 - Capacity Building in Conservation Finance Project teams must improve their understanding of financial mechanisms to effectively secure funding.
 - Pipeline Development for Investment Pre-feasibility studies could help identify potential investment opportunities, making it easier to connect projects with financial backers.
 - Regulatory Frameworks Creating a strong legal environment can encourage investment and ensure the long-term viability of projects.
- 9. In the last informative session, attention shifted to upcoming global processes and events where the LME community will play an important role. These included the IWC10, the flagship event for the GEF IW portfolio (September 2024), the United Nations Ocean Conference (UNOC3, June 2025) and the development of the GEF-9 strategy. At the end of the session, UNEP/MAP offered to co-host LME24 meeting in Athens in 2025.
- 10. The closing remarks underscored the importance of integrating science and data into marine ecosystem management, aligning with the Ocean Decade's goals, urging the LME community to engage with these initiatives to strengthen governance and sustainability. The meeting organizers thanked the key partners and expressed their anticipation for continued collaboration at the next gathering in Uruguay in September 2024.
- 11. The meeting was closed on 5 June 2024 at 12:30 hours.

Introduction

The Consultation Meeting on Large Marine Ecosystems (LMEs) and Coastal Partners plays a crucial role in fostering the development of collaborative efforts and partnerships within the framework of LMEs. By actively engaging leaders in marine science, coastal management, biodiversity conservation, and projects focused on coastal climate change adaptation, this gathering serves as a dynamic platform for knowledge exchange and strategic discussions. It provides a global forum for Global Environment Facility (GEF)-funded and other marine and coastal projects, partner organizations and institutions, including Regional Seas organisations and Fisheries Management Organizations, international non-governmental organizations (NGOs) and regional community leaders. The primary goal of this gathering is to exchange experiences and insights related to ecosystem-based management (EBM) of LMEs and effective ocean governance.

Specific objectives of the LME23 Meeting

The specific objectives of the LME23 meeting were to:

- Review progress in regions through GEF-funded marine and coastal projects, disseminating best practices, and discussing emerging issues requiring common responses;
- Consult the LME community on the progress of the work on updating the LME concept and strategy;
- Share the latest science, innovation, and knowledge from the ocean science community;
- Further elaborate on integrated approaches in the management of LMEs, such as sustainable ocean plans (SOPs), source-to-sea (S2S) collaboration and inform on the status of GEF-8 Integrated Programmes (IPs);
- Consolidate inputs to the Tenth International Waters Conference (IWC10) on sessions related to marine and coastal issues, other key events and processes, e.g. the United Nations Ocean Conference (UNOC3) process and help shape strategic priorities for the GEF-9 replenishment cycle;
- Inform on the status of the Data and Information Management (DIM) workstream and brainstorm on the next steps.

Agenda-at-a-glance

The overall agenda for the three days is shown below. The detailed agenda can be found in <u>Annex i</u> and the list of participants in <u>Annex ii</u>.

	Monday	Tuesday	Wednesday
	3 June 2024	4 June 2024	5 June 2024
09.15-09.30	Bi-lateral meetings	Recap of Day 1 and introducing Day 2	Recap of Day 2 and introducing Day 3
09.30-10.00		Session 3 – Challenges and	Session 5 – Sustaining results and
10.00-10.30		opportunities for advancing LMEs	impacts of LME projects
10.30-11.00			Break-out session
11.00-11.30			
11.30-12.00		Break-out session	Session 6 – Towards IWC10, UNOC
12.00-12.30			Session 7 – LME23 closing session
12.30-13.00	LUNCH	LUNCH	LUNCH
13.00-13.30			
13.30-14.00			
14.00-14.30	Session 1 - Opening	Reporting back	Workshop on Data and Information
14.30-15.00	Session 2 – LME	Session 4 – From LMEs to high seas	Management (DIM)
15.00-15.30	Implementation progress		
15.30-16.00			
16.00-16.30		Break-out session	
16.30-17.00	Break-out session		
17.00-17.30		Reporting, discussion and wrap-up	
17.30-18.00	Reporting and wrap-up Day 1	Day 2	
18.00	Welcome cocktail		

Summary of the sessions

Day 1: Monday 3 June 2024 (afternoon)

Session 1 – Opening session

Session chair: Julian Barbière (UNESCO-IOC)

Rapporteur: Fernanda Vilar (UNESCO-IOC & IW:LEARN)

Objectives of Session: To open the meeting, welcome the participants and set the scene for the subsequent sessions and discussions.

Time	Title	Name
14.00-	• Welcome	Julian Barbière (UNESCO-IOC)
14.30		Andrew Hume (GEFSec)
		Adnan Awan (UNDP)
		Hartwig Kremer (UNEP)
		Gonzalo Cid (NOAA)
	Key developments in the ocean landscape since LME22 meeting	Andrew Hume (GEFSec)
	Structure and objectives of LME23 meeting & DIM workshop	Claudette Spiteri (UNESCO-IOC & IW:LEARN)

Julian Barbière, Intergovernmental Oceanographic Commission of UNESCO (UNESCO-IOC), opened the 23rd Large Marine Ecosystem (LME) and Coastal Partners Annual Consultative Meeting by welcoming participants to Paris. He remarked the collaborative, family-like spirit of the gathering, reflecting the legacy of the LME concept, pioneered in the early 1990s by Dr. Kenneth Sherman.. He made reference to this year's meeting objectives that included strengthening ecosystem-based approaches, sharing innovations and challenges, updating the LME concept with new scientific insights, and advancing strategic action plans aligned with global frameworks, such the Sustainable Development Goal 14 (SDG 14), the Biodiversity Beyond National Jurisdiction (BBNJ) Agreement, and the Global Biodiversity Framework (GBF). Mr. Barbière emphasized the role of LMEs in fostering transboundary ocean management through science-based solutions and the importance of the upcoming key events, such as the 10th International Waters Conference (IWC10; Uruguay, 2024) and the 2025 United Nations Ocean Conference (UNOC3; Nice, France), to position the LME community's contributions effectively. He concluded by acknowledging the continuous support by UNESCO-IOC to strengthen

collaboration and innovation, thanking the LME advisory group for organizing what promises to be a productive meeting.

Andrew Hume, Global Environment Facility Secretariat (GEFSec), expressed gratitude to UNESCO-IOC and IW:LEARN for continuing the tradition of holding the meeting in Paris. He emphasized the importance of the meeting as a platform to gather feedback for improving GEF programming and project design, especially in preparation for GEF-9 and the upcoming IWC. Underscoring the centrality of partnerships in the GEF's work, Mr. Hume referred to the role of LME projects and partners in supporting countries on transboundary management issues. He concluded by expressing excitement about reconnecting with familiar faces and meeting new participants.

Adnan Awad, United Nations Development Programme (UNDP), pointed out the importance of the LME framework in guiding UNDP programming and responding to government priorities with urgency, particularly in ocean and climate-related initiatives. He highlighted insights from the recent 4th International Conference on Small Island Developing States (SIDS4) in Antigua and Barbuda, underlining the critical role of SIDS as leaders in thought, innovation, and community-driven nature-based solutions. Mr. Awad stressed the urgency of delivering tangible outcomes to address challenges faced by Small Island Developing States (SIDS), Least Developed Countries (LDCs), and coastal communities, while integrating traditional knowledge and fostering community involvement. He also pointed to the need for evolution in the LME framework to meet 2030 targets and welcomed discussions on innovation and sustainability, such as those supported by the Ocean Innovation Challenge (OIC). He concluded by thanking UNESCO-IOC and other partners for their collaboration.

Hartwig Kremers, United Nations Environment Programme (UNEP), highlighted the evolution of the LME framework and its alignment with global environmental agreements, emphasizing its role in fostering collaboration for marine conservation. He highlighted the integration of traditional knowledge, community actions, and key initiatives like the Kunming-Montreal Framework, UN Decades on Ocean Science and Ecosystem Restoration, and the BBNJ Agreement. Mr. Kremers outlined challenges, including aligning the LME framework with regional seas conventions and the UNEP's 2026-2029 mid-term strategy, and advancing GEF-9 programming. He cited innovative efforts like Integrated Programmes (IPs) on Plastics and Clean & Healthy Oceans and dialogues such as the Sustainable Blue Economy Finance Forum planned at the margins of UNOC3. Concluding, he stressed that managing LMEs is ultimately about people and called for a forward-looking dialogue.

Gonzalo Cid, National Oceanic and Atmospheric Administration (NOAA), emphasized the need to revitalize NOAA's role in the LME framework, noting a decline in institutional awareness and engagement. He referred to NOAA's historical contributions to LMEs in regions like the Caribbean, Gulf of Mexico, and East Africa, and their connection to marine protected areas (MPAs). Reflecting on the framework's origins 40 years ago, they stressed the importance of aligning LMEs with modern challenges, including the BBNJ agreement. Mr. Cid called for NOAA to reclaim leadership in LMEs, emphasizing the enduring value of the concept and the need for renewed integration within NOAA's structure.

After a series of opening remarks, **Mr. Hume** gave an overview of the key developments in the ocean landscape since LME22 meeting, emphasizing the growing urgency of ocean conservation as temperatures rise and the global challenges deepen. Key updates included the operationalization of the GBF, with \$211M allocated to support projects like the 30x30 marine conservation target, and the progress of the BBNJ agreement, now with 90 signatories. He also noted increasing focus on blue carbon and the ocean-climate nexus, expected to be key topics within United Nations Framework Convention on Climate Change (UNFCCC) and Convention for Biological Diversity (CBD) dialogues, and the upcoming 2024 United Nations Biodiversity Conference (COP16; 21 Oct – 1 Nov 2024; Cali, Colombia) and the 2024 United Nations Climate Change Conference (COP29; 11-22 Nov 2024; Baku, Azerbaijan). Additionally, the UN Ocean Decade and various global events are driving momentum toward addressing deep-sea mining, plastics, and marine conservation. On the GEF side, GEF- 8 programming is halfway through, with \$134M remaining for projects.

Claudette Spiteri, UNESCO-IOC & IW:LEARN, presented the meeting's agenda and objectives focusing on strengthening the LME process and fostering partnerships to promote collaboration in marine and coastal ecosystem management. Specific objectives included discussing updates on science, integrated approaches such as the source-to-sea (S2S) concept, and the evolution of the LME framework. Additionally, the meeting would include a session dedicated to sustaining project impacts beyond their life cycle and contributing to upcoming global events like IWC and the preparation for GEF-9. Ms. Spiteri announced the back-to-back workshop on data and information management (DIM), targeting GEF project managers and specialists, with the aim to continue previous work on improving data management.



Session 2 – LME Implementation Progress

Session chair: Vladimir Mamaev (UNDP)

Rapporteur: Sofia Tzavella (UNESCO-IOC & IW:LEARN)

Objectives of Session To highlight the progress in the LME implementation by showcasing key results in terms of scientific results & tools; partnerships; governance, innovation and SIDS.

Time	Title	Name	
14.30- 16.15	• 5763 Indonesian Seas Large Marine Ecosystem (ISLME)	Rudolf Hermes (expert)	
	• 10069 Sustainable management of fisheries, marine living resources and their habitats in the Bay of Bengal region for the benefit of coastal states and communities (BOBLME II) & 10703 Promoting the blue economy and strengthening fisheries governance of the Gulf of Thailand through the Ecosystem Approach to Fisheries (GoTFish)	• Yumi Son (IUCN) & Angela Lentisco (FAO)	
	10800 Protecting and Restoring the Ocean's natural Capital, building Resilience and supporting region-wide Investments for sustainable Blue socio-Economic development (PROCARIBE+)	Sonia Gautreau (UNOPS)	
	• 6920 Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2)	 Handoko Adi Susanto (PEMSEA) (absent) 	
	• 10685 Build back a blue and stronger Mediterranean	Carole Martinez (MedPAN)	
	• 5538 Implementing the Strategic Action Programme for the South China Sea (SCS-SAP)	Anders Poulsen (UNOPS)	
	• 10560 Fisheries and Ecosystem Based Management for the Blue Economy of	• Anna Carlson (GFCM)	

the Mediterranean - (FishEBM MED) & 10558 Fisheries and Ecosystem Based Management for the Black Sea - (FishEBM BS)

- 9129 GloFouling Partnerships
- Updated LME bibliography
- Lilia Khodjet el Khil (IMO)
- Claudette Spiteri (UNESCO-IOC & IW:LEARN)

Vladimir Mamaev, UNDP, opened the session and introduced its main objective to highlight the key achievements of the LME portfolio since the previous LME meeting. He invited speakers to report on progress in terms of scientific results & tools; partnerships; governance, innovation and SIDS contributing to the progress in LME implementation.

Rudolf Hermes, expert, spoke about the Indonesian Seas LME project (2019-2023) and referred to the five primary priority issues identified through the transboundary diagnostic analysis (TDA) process by Indonesia and Timor Leste. The focus was mainly on integrating Ecosystem-Based Management (EBM) and Ecosystem Approach to Fisheries Management (EAFM) capacity development and pilot interventions into government actions, particularly in fisheries and aquaculture, promoting Integrated MultiTrophic Aquaculture (IMTA). The Indonesian Seas, comprised of several seas, such as Java Sea, Banda Sea, Savu Sea etc, cover 2.1 million km² in the heart of the Western Indo-Pacific and part of the Coral Triangle. It holds immense biogeographic and socio-economic significance, featuring the Indonesian throughflow connecting the Pacific and Indian Oceans. It is a globally critical area for fisheries production, supporting a large coastal population and thriving marine industries. To address transboundary challenges and imbalances, efforts have emphasized sustainability through enhanced collaboration on Illegal, Unreported, and Unregulated (IUU) fishing, the establishment of a Marine Peace Park, and the development of an MPA network. A strong commitment to future actions was demonstrated with the ministerial-level endorsement of the SAP just weeks after its finalization. Preparations are now underway for the SAP Implementation phase to advance these initiatives further.

Yumi Son, International Union for Conservation of Nature (IUCN), presented the Bay of Bengal LME Phase II (2023-2028). This five-year project aims to address the region's complex challenges by developing effective governance arrangements to improve sustainable fisheries, protected area management, and regional species conservation across countries such as Sri Lanka, India, Bangladesh, Indonesia, and Thailand. Key achievements include establishing the Regional Coordination Unit (RCU) at the IUCN Asia Regional Office and initiating stakeholder mapping to build partnerships at the national and regional levels, alongside identifying potential sites for Marine Managed Areas (MMA) and EAFM implementation.

Angela Lentisco, Food and Agriculture Organization (FAO), talked about the GoTFish project which aims to improve natural resource governance in the Gulf of Thailand (GoT) through the implementation of the Ecosystem Approach to Fisheries (EAF), contributing to the fisheries

objectives of the South China Sea (SCS) SAP. The project focuses on the following key components: strengthening regional transboundary fisheries governance and management through the development and implementation of EAF management plans; aligning incentive mechanisms with market and behavioral strategies, particularly in fisheries; and establishing an ecological corridor to protect critical and important habitats for aquatic resources, with a focus on Malaysia.



Sonia Gautreau, United Nations Office for Project Services (UNOPS), presented the PROCARIBE+ project (2023-2028) covering the Wider Caribbean Sea and 19 beneficiary countries. The initiative, originally launched in 2009 through previous project phases, aims to protect and restore the ocean's natural capital, build resilience, and support region-wide investments for sustainable blue socio-economic development. A major achievement was developing a framework for ocean governance across multiple countries, which involved lengthy negotiations to establish an ocean coordination mechanism (OCM). The Memorandum of Understanding defines the structure, scope, topics and the mode of operation required to enhance regional coordination and collaboration. In order to be fully operational, the commitment of 17 signatory countries is required. Currently 10 countries have signed the agreement. An interim coordination mechanism was set up and the group met 14 times. This group, consisting of regional intergovernmental organizations in the Caribbean, coordinates ocean-related actions and addresses issues collaboratively. The mechanism aims to improve integrated reporting and marine data management in the region. Additionally, it will lead the development of the new TDA, embedding the cyclical TDA/SAP approach within the coordination framework. PROCARIBE+

is a crucial project as it provides an opportunity to demonstrate how ocean governance can function in a geopolitically complex region, showcasing its importance to the global community and other stakeholders.

Carole Martinez, MedPAN, highlighted the "Build Back a Blue and Stronger Mediterranean" project, aimed at strengthening and funding the effective management of Mediterranean MPAs, building technical and financial capacities for MPA managers and enhancing national and regional governance. In 18 months, the project committed over \$2 million to support seven MPAs across four countries, including full funding for new MPAs in Montenegro and a successful comanagement model in Tunisia. The latter engages local communities with a gender-sensitive approach that empowers women and young people in the management of the MPA. The project delivered four regional training sessions, launched a web platform to engage stakeholders with the Mediterranean MPA Roadmap, while maintaining its focus on building technical and financial capacities for MPA managers. Future efforts include sustaining funding, technical support, and stakeholder engagement to enhance marine conservation.

Anders Poulsen, UNOPS, presented the SCS-SAP project that focuses on implementing the SAP for the South China Sea and the Gulf of Thailand in collaboration with six countries: Cambodia, China, Indonesia, Philippines, Thailand and Vietnam. The current phase was formulated on the outcomes of the previous project (2002-2008) and started in 2018. For a number of reasons, the project has been delayed and the end date has been extended from 2023 to 2026. The focus is on coastal ecosystems, mangroves, coral reefs, seagrass, and coastal wetlands addressing coastal ecosystems, conservation and land-based pollution. A key initiative included a special forum on the science-policy interface, conducted in partnership with IOC/WESTPAC, linked to the 2nd Regional Conference on the Ocean Decade in April 2024. A roundtable on the science-policy interface included local site managers and regional government representatives, emphasizing the role of traditional and local knowledge, and citizen science in ecosystem management. Communities stressed the need for relevant, inclusive science and their involvement in scientific projects, given their constant presence on the ground. A panel on the sustainable blue economy, conducted in collaboration with Coordinating Body on the Seas of East Asia (COBSEA), framed the project within a sustainable blue economy framework, featuring representatives from participating countries and local implementers. This work highlighted the importance of integrating local-level inputs into regional and transboundary initiatives. As a follow-up, the project is implementing these recommendations and will soon release a formal report on the outcomes.

Anna Carlson, General Fisheries Commission for the Mediterranean (GFCM), highlighted the key updates of the two sister projects: The Fishery and Ecosystem-Based Management (Fish EBM) for the Blue Economy of the Mediterranean and its counterpart for the Black Sea. Both projects aim to address overexploitation of commercial marine resources by enhancing fisheries management capacities through ecosystem-based approaches, combating IUU fishing, and promoting the blue economy. Key achievements from the first year included the establishment of fisheries restricted area in Otranto Channel, Adriatic Sea, including the completion of a Remotely Operated Vehicle (ROV) survey to assess the presence of vulnerable marine ecosystems. A second achievement related to the application of the ecosystem approach in Lebanese Waters, where the first

exploratory survey was conducted, paired with EBM planning for the sardinella fishery, involving local fishers in a participatory process. The third key achievement addressed non-indigenous species in Eastern Mediterranean, which involved the development of market-based strategies to manage non-indigenous species, turning them into resources while mitigating environmental impacts. Despite slower progress in the Black Sea, similar initiatives are planned, replicating methodologies used in the Mediterranean.

Lilia Khodjet El Khil, International Maritime Organization (IMO), highlighted the achievements of the GloFouling Partnerships project, implemented by the IMO in collaboration with UNDP. The project addresses marine biodiversity loss by tackling invasive aquatic species (IAS) introduced through ships' biofouling, and more generally climatic impacts caused by greenhouse gas emissions. Operating across seven regions with five regional secretariats, the project has also garnered support from a global industry alliance, contributing \$500,000 and commissioning studies. Key achievements included organizing an international workshop on biofouling management in MPAs and promoting the application of the IMO Particularly Sensitive Sea Area (PSSA) concept alongside spatial management measures. Such measures include ships routing measures to prevent IAS introductions and the potential of designating PSSAs in ABNJ. Looking ahead, efforts are underway to develop GloFouling partnerships and extend activities to include the Mediterranean region.

Claudette Spiteri, UNESCO-IOC & IW:LEARN, gave an overview of the efforts currently underway to update the LME annotated bibliography to encompass the period from 2017 to 2023. This volume, following up on NOAA's 2016 publication *Large Marine Ecosystems of the World: An Annotated Bibliography* (Kelley, 2016), will consolidate 390 assessments globally across the five-modules such as productivity, fisheries, pollution, ecosystem health, socioeconomics, and governance. Drawing from the results of 110 projects across 22 LMEs since 1994, the updated bibliography represents a significant body of scientific work, with over 100 pages of data and references. This comprehensive resource, reflecting decades of research and contributions, is anticipated to be released soon, ensuring broad dissemination to advance knowledge and inform LME management worldwide. This bibliography, guided by Dr. Kenneth Sherman, offers a critical resource for marine scientists, social scientists, and resource managers committed to sustainable development of the world's LMEs. A <u>statement prepared by Dr. Kenneth Sherman</u> was shared with the participants.

Break-out session A

Time	Title	Name
16.30- 17.30	i. Implementation challenges of LME projects	Gonzalo Cid (NOAA) David Vousden (GESAMP)
	ii. Towards an ocean governance simulation game	Klaudija Cremers (IDDRI)
	iii. Gender mainstreaming and stakeholder participation/engaging youth and civil society	Virginia Gorsevski (STAP)

Session A: Highlights of the break-out discussions

Participants were invited to partake in three breakout groups, each delving into specific areas of discussion. The rapporteurs for these groups then relayed the essence of their discussions in plenary. A concise summary of the key points from each of the breakout sessions is provided below:

i. Implementation challenges of LME projects

The discussion focused on the challenges faced by LME projects resulting in delays in implementation due to a multitude of reasons, including changes in administration, project teams, or leadership within implementing agencies. Coordination challenges exist between countries, implementing agencies, and contractors etc., with the associated risk of losing momentum, personnel etc. Other challenges relate to the lack of long-term impacts, continuity and sustainability as projects fail to create lasting structures, policies, or legacies and often do not transition to permanent governance structures. Once projects end, consultants leave, reports are filed, and institutional memory is often lost, especially with government changes. This results in an overreliance on subsequent project phases (e.g., Phase 2, Phase 3) without establishing sustainable systems or outcomes. Political sensitivities in transboundary issues hinder collaboration and project progress despite initial agreements among countries.

The group put forward a number of potential solutions, including:

- 1. Expedite implementation
 - Need to streamline processes and coordination among stakeholders to reduce delays
 - Improve mechanisms for managing transitions between project phases and administrative changes
 - Design less complex and more realistic projects with less jargon, considering the complex transboundary context and integrated nature of activities and approaches.
 This also applies to the extent the committed co-financing can be materialized.

2. Focus on building legacy structures

- Ensure projects leave behind permanent frameworks, policies, or governance structures
- Focus on capacity building and institutional strengthening within beneficiary countries

3. Addressing transboundary political issues

- Seek advice and share best practices for handling politically sensitive areas in transboundary contexts
- Consider the impacts of political issues on the implementation of SAP

4. Ensure sustainability

- Example by linking LME projects to Regional Seas Conventions or similar existing structures for continuity and governance
- Create logical, long-term plans to sustain project outcomes beyond their funded timeline, to ensure sustainability at the regional and national levels
- A sustainability plan should be established at the start, with the mid-term review process including an evaluation of the plan's feasibility. This sustainability plan must also incorporate a clear and practical exit strategy
- Adaptive management as the key element for sustainability
- A project is successful not only on achieving what it has been designed to achieve, but also to create the ground for a new project
- Consider emerging innovative and sustainable financing, including funding public participation

5. Strengthen stakeholder engagement

- Stakeholder engagement should come at the design phase. Ownership by the stakeholders, including governments of beneficiary countries, to ensure continuity after project lifetime
- Establish mechanisms to ensure coordination between mandated bodies

6. Encourage knowledge sharing

 Foster open discussions to share experiences and propose actionable solutions among project stakeholders

ii. Towards an ocean governance simulation game

The group discussed the potential development of an ocean governance simulation game. The proposed game aims to achieve two primary objectives:

- a. building capacities in developing countries to navigate ocean governance complexities
- b. fostering interactions among diverse stakeholders.

Unlike traditional negotiation/compromise-focused games, this game should emphasize cooperation, particularly relevant for addressing complex issues like BBNJ where multiple organizations with varied mandates must collaborate. Key thematic areas identified include establishing MPAs in the high seas, implementing ecosystem-based approaches, and tackling IUU fishing. The game is envisioned as a globally adaptable framework that can be tailored to specific regions and themes through an "extended package" in additional to a basic generic game, ensuring broad relevance and practical application.

iii. Gender mainstreaming and stakeholder participation/engaging youth and civil society

The discussion emphasized four key takeaways for advancing gender mainstreaming in LME projects:

- a. Effective phrasing and inclusion going beyond simply inviting women to meetings, but focusing on genuinely on gender mainstreaming
- b. Fostering women's participation and inclusion in decision-making, requiring cultural shifts to amplify women's voices
- c. Local-level implementation as a catalyst for real engagement, necessitating contextsensitive approaches that address societal and structural limitations
- d. Creating "stepping stones" for stakeholder engagement, to create a culture of participation.



Examples from West Africa highlighted the importance of involving women and women associations in activities, such as legal framework assessments, decision-making processes and action plan implementation, which also foster trust through civil society engagement. The breakout session also outlined a number of major challenges:

- a) Clear objectives and expected outcomes must be integrated into program documents during the design phase.
- b) Gender mainstreaming is not only about women, but about the need for balanced strategies.
- c) Lack of gender expertise and budget constraints to fund positions dedicated to gender mainstreaming is a significant barrier
- d) The absence of field assessments that diminishes the effectiveness of gender initiatives.

Addressing these requires moving away from theory, prioritizing field-based analyses and practical examples to foster actionable insights. Finally, short project deadlines were cited as a barrier to social change, which inherently requires time. Sustainable progress necessitates phased, long-term strategies to achieve meaningful outcomes in gender mainstreaming.

Day 2: Tuesday 4 June 2024

Session 3 – Opportunities and challenges for advancing LMEs

Session chair: Andrew Hume (GEFSec) & Isabelle Vanderbeck (UNEP)

Rapporteur: Claudette Spiteri (UNESCO-IOC & IW:LEARN)

Objectives of Session: To highlight opportunities and address challenges related to a number of topics of interest to LMEs.

Time	Title	Name
09.30- 10.05	Leveraging science	Niccolo Bassan (UNESCO-IOC)
	 Latest from the Ocean Decade (Ocean Vision 2030; LME satellite event at ODC; endorsement of LME projects) 	Claudette Spiteri (UNESCO-IOC & IW:LEARN)
	Updates from STAP	Virginia Gorsevski (STAP)
10.05-	Integrated approaches	Ruth Mathews (SIWI)
10.45	Source-to-Sea: LMEs & RBOs	Laverne Walker (IWEco; UNEP Cartagena)
		Handoko Adi Susanto (PEMSEA) (absent)
		Dimitris Faloutsos (GWP-MED)
	National & regional integration	Mohamad Kayyal (MedProgramme; UNEP/MAP)
11.00-	Update on IPs	
11.30	 Clean and Healthy Ocean Blue and Green Islands Circular Solutions to Plastic Pollution 	Lorenzo Galbiati (FAO)Adnan Awad (UNDP)Isabelle Vanderbeck (UNEP)

Niccolo Bassan, UNESCO-IOC, presented the Ocean Decade Vision 2030 process that was launched in response to a strong demand from Ocean Decade community to shape a common vision for the next 7 years and a growing need to measure and document the impacts of the Ocean Decade. The aim Is to enhance collective impact, providing a window of opportunity to deliberately design the 'science we need' and avoid dispersion of Decade Actions. Engaging over

150 experts from 50+ countries, the initiative focused on setting strategic ambitions for the Decade's 10 challenges, measuring progress through milestones and indicators, and addressing cross-cutting themes such as EBM, marine pollution, sustainable aquaculture and the biodiversity-climate-food security nexus. Key outputs include 10 white papers, the Vision 2030 Outcomes Report, and the Barcelona Statement, all of which reflect insights from working groups and the 2024 Ocean Decade Conference. This process ensures an adaptive and evolving framework for achieving the science and ocean outcomes needed, with reports set to be published soon.

Claudette Spiteri, UNESCO-IOC & IW:LEARN, reported on the satellite event co-organized by IW:LEARN, GEF, UNDP and others at the Ocean Decade Conference in April 2024 in Barcelona. The event aimed to strengthen collaboration between the Ocean Decade and the LME community highlighting shared frameworks, with overlaps between the Ocean Decade's 10 challenges and LME's five modular areas, and the shared involvement of contributors in both communities. Discussions focused on fostering partnerships and identifying synergies, with a key recommendation to encourage LME projects to seek endorsement by the Ocean Decade. This approach would enhance the integration of LME projects with the Ocean Decade's knowledge, data, and tools, leveraging the opportunity for broader collaboration and impact. Further insights on the endorsement process and its benefits were shared to support this initiative. LME projects interested in being endorsed by the Ocean Decade should contact the IOC Secretariat and check out the Ocean Decade website for more information.

Julian Barbière, UNESCO-IOC, elaborated on the synergies between the LMEs and the Ocean Decade, emphasizing the shared goal of advancing applied ocean science for policy and management. LMEs, as generators and users of knowledge, contribute to governance and strategic action through processes like the TDA/SAP. The Ocean Decade framework, comprising 52 international programmes and over 300 projects, fosters collaboration through diverse levels of actions, including programmes, projects, contributions, and activities. Biannual calls target gaps in research and knowledge, enabling tailored investments in applied science and policydriven solutions. LME projects can benefit significantly from endorsement by the Ocean Decade, gaining access to resources, enhanced visibility, and partnerships across government, academia, and industry. Key examples include cutting-edge initiatives in biodiversity observation and climate impact assessment, leveraging shared data and innovation. Participation in the Ocean Decade ecosystem offers integration into a global network of stakeholders, enabling knowledge exchange, capacity development, and access to funding opportunities. Institutions can collaborate through national decade committees, philanthropic networks, and dedicated regional and thematic centers, ensuring alignment of science with economic and policy priorities. The Ocean Decade Conference underscored the importance of bridging communities to accelerate progress toward sustainable ocean governance and impactful research outcomes.

Virginia Gorsevski, Scientific and Technical Advisory Panel (STAP), introduced STAP and its functions to provide independent scientific, technical, and policy advice to the GEF Council on GEF projects, policies and programs. STAP has two main roles in the GEF Partnership: i. to provide

advice e.g. on state of science and ii. to screen projects and programs, including GEF full-sized projects and integrated programs. As part of the GEF structure, STAP functions independently, screening full-sized projects exceeding \$5 million, across focal areas such as international waters, biodiversity, and climate adaptation. It provides guidance on topics like theory of change, integration, risk management, socio-economic co-benefits, and climate adaptation, and on crosscutting topics such as citizen science, blended finance, knowledge management and learning, policy coherence, earth observation etc. Recent contributions include frameworks on the blue economy, water security, and adaptation integration, emphasizing project durability, stakeholder engagement, and coherence with future environmental challenges. A key finding from analyzing GEF-8 projects revealed the untapped potential for incorporating climate adaptation benefits, with 27% of reviewed projects likely to deliver these benefits and 60% able to do so with minor adjustments. STAP continues to produce resources, such as primers, decision tools, and technical papers, while advocating for collaborative approaches among agencies to ensure transformative, durable, and integrative outcomes. These publications are accessible on websites of GEF Council and STAP.



Ruth Matthews, Stockholm International Water Institute (SIWI), introduced the session on source-to-sea (S2S) by outlining efforts to promote holistic management of interconnected ecosystems spanning land, freshwater, coastal, and marine areas. Many impacts on coastal and marine ecosystems stem from land-based activities, often mediated through freshwater systems. The S2S approach has been part of the IW dialogue since at least 2010, recognizing the role of upstream actors in LME projects along the S2S continuum. Despite recognition by organizations like GEF, freshwater and marine communities often remain siloed in their approaches to ecosystem management. After Ms. Matthews' introduction, a number of example projects were presented to stimulate discussions and generate ideas on how to better integrate the S2S approach into projects.

Laverne Walker, UNEP Cartagena, highlighted the GEF IWEco project that involved 10 SIDS and focused on integrated water, land, and ecosystem management to address climate resilience and reduce negative impacts on marine environments. With a focus on watershed management, the project addressed upper, middle, and lower watershed activities, including efforts to improve land management practices, particularly through farmer training and community involvement. The project benefitted from strong government backing from the outset, securing its success. For instance, in Saint Lucia, an agrotourism park supported by the government integrated conservation and economic activities. In Cuba, the government committed to protecting over 136 km² of forest, bolstering community trust and project success. Other aspects included capacity building, fostering sustainability. Extensive farmer training programs improved soil management, composting, and introduced alternative crops to reduce sedimentation. Farmers, e.g. in Cuba, became trainers within their communities with demonstration farms showcasing best practices and introducing high-value crops to incentivize sustainable practices. Institutional sustainability was achieved through specialized courses, including 18 master's programs, 7 PhD programs, and 10 professional development studies. The project engaged youth in activities like beach cleanups, coral reef restoration, and environmental monitoring to foster long-term environmental awareness. All in all, the project demonstrated that government support, community involvement, sustainable practices, youth engagement, and economic incentives can lead to effective integrated water and land management while fostering environmental and economic benefits for local communities.

Dimitris Faloutsos, Global Water Partnership - Mediterranean (GWP-MED) gave an overview of various ongoing initiatives under the MedProgramme in collaboration with UNEP/MAP, highlighting efforts to design and implement integrated S2S and Nexus approaches for ecosystem management. For instance, in Lebanon a S2S plan is developed to manage a small basin, starting from the design phase. In Morocco, the coastal zone management of the Mediterranean-facing region is integrated into regional development plans, combining S2S with the water-food-energy Nexus approach across several basins. Similar activities with a transboundary scope are implemented in the Drin Basin in collaboration with UNDP. The current phase 2 focuses on implementing ecosystem-based approaches to address pollution, resource management, and upstream drivers impacting the marine environment. Mr. Faloutsos emphasized the importance of a holistic design from the outset as the main lesson learned. Data fragmentation, misalignment of governance structures with natural systems, and insufficient stakeholder engagement pose significant challenges to effective S2S and Nexus approaches. Incomplete or siloed data undermine informed decision-making, emphasizing the need for a synergistic approach to data collection and sharing. Integrated solutions require collaboration across institutions, sectors, and stakeholders, with early engagement of relevant parties, such as energy, agriculture and fisheries to align responsibilities and ensure sustainability. While ecosystem-based approaches provide a foundation, they must be complemented by frameworks like the Nexus approach to address interconnected challenges holistically. Combining these elements in project design enables more sustainable and impactful outcomes.

Mohamad Kayyal, MedProgramme & UNEP/MAP, delved into how to integrate the outcomes on a national and regional level when working on a programmatic level as in the case of the

MedProgramme. The MedProgramme, funded by the GEF, integrates eight Child Projects across 10 countries and 4 focal areas: biodiversity, climate change, chemicals, and waste, and international waters. Effective integration requires strong national coordination, with stakeholders leading from the outset, fostering ownership, sustainability, and collaboration across sectors. National stakeholders should engage in coordination meetings, share data through a central platform, and establish intersectoral committees with clear governance structures. Regional integration builds on strong national efforts, leveraging knowledge-sharing platforms, capacity-building activities, and cultural considerations to enhance cooperation. The Programme Coordination Unit facilitates regional integration, creating the "enabling conditions", platforms, tools etc. that allow countries to be engaged, ensuring outcomes and lessons benefit all participating countries. Integration is at different levels, both vertically starting from local to subnational to national to regional, as well as horizontally through national coordination.

Andrew Hume, GEF, introduced the GEF-8 Integrated Programs (IPs) comprising 11 flagship initiatives designed to address global environmental challenges by integrating efforts across the five focal areas. These programs feature national Child Projects combining IW funding with System for Transparent Allocation of Resources (STAR) funds to ensure targeted, country-specific support while addressing broader environmental drivers. The programs emphasize cross-sectoral collaboration and integration within and across thematic areas to maximize environmental impact. This introduction was then followed by the presentation of three IPs: Clean and Healthy Ocean, Blue and Green Islands initiative, and Circular Solutions to Plastic, each led by a designated GEF agency.

Lorenzo Galbiati, FAO, updated the participants on the Clean and Healthy Ocean IP targeting ocean hypoxia and eutrophication by focusing on watershed interventions as part of the S2S approach. Despite efforts, these issues persist, with oceanic dead zones increasing from 10 in the 1960s to over 500 by 2020. Key barriers include insufficient integration of science-based decisionmaking, limited application of innovative financial tools, and inconsistent global policies. The IP addresses these challenges by promoting science-driven strategies, enhancing investment mechanisms, and strengthening policy frameworks, aiming to reduce nutrient loads at their source and restore ocean health. The IP consists of 15 projects, one of which is the global coordination project that ensures the 14 Child Projects are integrated and not implemented as standalone projects. The IP, supported by \$112 million in GEF funding and \$750 million in cofinancing, is co-led by FAO, ADB, EBRD, and CAF, with strategic partners like GWP. Its three components focus on raising awareness, enabling science-based policy and investment decisions, and promoting nature-based solutions over traditional gray infrastructure. Approved in February 2024, the program is in its project preparation phase, engaging stakeholders to finalize the global coordination project by year-end and expecting child project submissions by early 2025, aiming to start execution in the first half of 2025.

Adnan Awad, UNDP, informed about the status of the Blue and Green Islands IP approved in June 2023. This IP focuses on accelerating the adoption of nature-based solutions (NbS) across 15 SIDS. Led by UNDP with six partner agencies, the program has \$135.6 million in funding, including \$120 million for 15 country-led projects and \$15.7 million for global coordination. The IP aims to integrate NbS into policies, development planning, and economic sectors such as food, tourism,

and urban landscapes, while fostering enabling environments for scaling proven solutions. A key component is the Nature-Based Solutions Accelerator, which supports local enterprises through private investment and technical assistance. The program is coordinated through regional hubs and includes knowledge management and partnerships to scale impact beyond the initial 15 countries. With project documents being finalized, the IP plans an inception workshop at the 2025 United Nations Biodiversity Conference (COP17) and targets implementation starting in early 2025.

Isabelle Vanderbeck, UNEP, presented the IP on Circular Solutions to Plastic Pollution (Plastic Reboot). The aim of this IP is to catalyze circular economy approaches to reduce single-use plastic packaging in the food and beverage sector, mitigating plastic waste in coastal zones and beyond. Co-led by UNEP and WWF with support from UNIDO and UNDP, the \$107 million program spans 15 countries across Africa, Asia, Latin America, and SIDS. It focuses on upstream and midstream interventions, targeting policy reforms, financial mobilization, private-sector engagement, and behavior change, while explicitly excluding downstream waste management activities. Key components include promoting circular design, reuse, and refill systems, supported by capacity development and an incubator for innovation and partnerships. The program emphasizes eliminating problematic plastics, fostering sustainable business models, and advancing policy tools like bans, extended producer responsibility (EPR) schemes, and fiscal incentives. Approved in June 2023, it aims to begin implementation by late 2024 for an eight-year duration.

LME partners were encouraged to contact the lead GEF agencies for respective IPs to explore closer coordination.



Break-out session B

Time	UNDP OIC Innovators (World Café)
11.30- 12.30	 Marine Pollution Solutions Virginia Carvalho - AqualnSilico - PhosValue digital solutions for nutrient recycling Luis Lombana - Ficosterra - Novel sustainable algae-based fertilizers
	 Sustainable Fisheries Solutions Raffaella Guida - Surrey Space Centre - Space-Based Maritime Surveillance System for Fisheries Monitoring and Anomaly Detection Miren Gutierrez - ODI - IUU fishing and unsustainable behaviour of Distant Water Fishing Fleets
	 Coastal and marine ecosystems management Solutions Marie Fischborne - IUCN - SEA Success tailored advisory services to MPA management Anders Christian Erichsen - DHI Denmark - Mapping and Monitoring of Ecosystems at Scale with Copernicus Sentinel- 2 Imagery (MCSAV)







Marine Pollution Solutions

 AqualnSilico's digital tools allow wastewater treatment plants to treat nutrientrich effluents and recycle treated water and biofertilizers for agricultural reuse. As part of its application in Cape Verde, this initiative led to a reduction of 4 tons of

- effluent release into the ocean annually and a 36% decrease in ocean acidification. Additionally, the project trained over 100 technicians across the country and demonstrated the potential for annual earnings of approximately \$38,000 from biofertilizers and treated water. The success contributes to improving large maritime ecosystems and promoting circular economy models globally.
- Ficosterra focuses on using seaweed extracts to reduce fertilizer use in coastal farming areas, effectively mitigating eutrophication and hypoxia. Successful trials in Morocco demonstrated the potential to reduce over 100,000 tons of nitrogen and 115,000 tons of phosphorus fertilizers from entering the ocean. Research from institutions like the University of Hassan II in Morocco and a Mexican R&D organization confirmed that this approach not only protects marine ecosystems but also improves crop yields and supports local economies.

Sustainable Fisheries Solutions

- O Surrey Space Centre Nereus is an innovative tool developed at the Surrey Space Centre in collaboration with the Mauritius Research and Innovation Council. It leverages satellite technology and artificial intelligence to combat IUU fishing, a key priority of the GEF-8 strategy. By analyzing high-resolution satellite data, Nereus identifies anomalies in fishing vessel behavior, effectively acting as a "watchdog" to detect hidden threats before irreversible damage occurs. This tool directly addresses the priority of improving fisheries management within exclusive economic zones (EEZs) and ABNJ, providing crucial support for regional and global fisheries management organizations. Nereus empowers countries and entities to better manage their fisheries, ensuring sustainable practices that protect oceans for future generations. Its cost-effective solution has a proven track record, demonstrating a return on investment of \$31 for every dollar invested. Nereus is adaptable and flexible, usable in any EEZ with satellite coverage, making it a powerful tool for any country or region seeking to protect its waters and safeguard its resources.
- ODI analysed the impact of distant-water fishing fleets with histories of unsustainable practices operating in the EEZs of Ecuador, Ghana, Peru, Senegal, and the Philippines. By utilizing vessel registry information, satellite data, and deep learning algorithms, the research identified both domestic and foreign fleets, detailing owners and operators involved in previous misconduct. The findings highlight significant economic losses for these countries, including reductions of Gross Domestic Product (GDP), job losses, and increased poverty levels, underscoring the urgent need for enhanced transparency and regulatory reforms in the fishing industry.

Coastal and Marine Ecosystems Management Solutions

IUCN presented the Sea Success project, a partnership between IUCN and Octo –
Open Communications for the Ocean that aims to revolutionize how MPAs access
the expertise they need to thrive and meet their conservation goals. The project
combines site-level implementation with global networks of practitioners through
a three-step process: scoping challenges, exchanging knowledge, and activating

- solutions. The Sea Success project focuses on regional cooperation, exchange, and partnership building. It is currently being piloted in Thailand and Bangladesh, engaging over 20,000 experts to date, with plans to scale the approach to more sites to further support MPAs in achieving their conservation objectives.
- Danish Hydraulic Institute (DHI) presented the web platform called MCSAV now being developed to map mangroves, seagrass, corals and submerged aquatic vegetation using remote sensing for the popular tourist destination Semporna in Sabah, Malaysia. The platform is an ecosystem management tool that leverages Copernicus satellite imagery and machine learning to provide coastal and marine protected area managers with cost-effective, scalable solutions for mapping and monitoring critical habitats. This technology offers accurate, up-to-date spatial information on ecosystem health and distribution, enabling informed decision-making for conservation, restoration, and sustainable development. With this platform, stakeholders will find it easier to plan, manage and monitor marine habitats in the area, which will in turn protect and enhance resilience for coastal-dependent communities. The platform's interactive web interface fosters collaboration among scientists, managers, and local communities, promoting inclusive, science-based decisions for healthier oceans and resilient coastal communities.



Session 3 – Opportunities and challenges for advancing LMEs (cont.)

Session chair: Hartwig Kremer (UNEP)

Rapporteur: Fernanda Vilar (UNESCO-IOC & IW:LEARN)

Objectives of Session: To highlight opportunities and address challenges related to a number of topics of interest to LMEs.

Time	Title	Name
14.00- 15.00	Panel Discussion Synergies with regional processes 1. How do the LME projects contribute to advancing the regional processes? 2. What are the opportunities and challenges for LME projects?	Mahesh Pradhan (COBSEA) Tatiana Hema (UNEP/MAP) Iryna Makarenko (BSC) Laverne Walker (UNEP Cartagena) Wenxi Zhu (WestPac)

Hartwig Kremer, UNEP, introduced the panel discussion and the panelists. He alluded to LMEs as a critical approach for addressing multidimensional challenges across time, space, and people. LMEs often overlap with multilateral environmental agreements (MEAs) and regional seas conventions (RSCs), facilitating sustainable marine and freshwater ecosystems. LMEs are integral to global initiatives like the Kunming-Montreal Global Biodiversity Framework, the upcoming BBNJ treaty, and global decades for ocean science, ecosystem restoration, and water action. These alignments offer opportunities to integrate normative work into scalable operational activities via GEF programs. The session explored how LME projects advance regional processes, emphasizing collaboration, environmental health, and effective support for MEAs.

Panelists were then invited to provide a short pitch on their respective regions.

Laverne Walker, UNEP Cartagena, mentioned that the Cartagena Convention is the sole legally binding agreement for protecting the marine environment in the Wider Caribbean. The Convention operates within three LMEs: the Gulf of Mexico, the Caribbean, and the North Brazil Shelf. Its participation in LME projects such as CLME, CLME+, PROCARIBE+, and the Gulf of Mexico initiatives strengthens its implementation of protocols and articles. These projects aid in developing regional environmental platforms, databases, and state of the environment reports while supporting strategies for nutrient and marine litter management. The Convention emphasizes the need for increased coordination and integration among regional governance frameworks, aiming to enhance collaboration among intergovernmental agencies through mechanisms like the OCM supported by PROCARIBE+.

Mahesh Pradhan, Coordinating Body on the Seas of East Asia (COBSEA), highlighted COBSEA's nearly 40-year legacy, encompassing nine participating countries, including Southeast Asian

nations, China, and the Republic of Korea. COBSEA spans vast marine regions, such as the Yellow Sea, East China Sea, South China Sea, Gulf of Thailand, and Sulawesi Seas. Key initiatives include a regional nutrient strategy, being fast-tracked in collaboration with Thailand, and the South China Sea Project, which lays a foundation for future cooperative efforts. Despite challenges such as political tensions among Member States, COBSEA emphasizes leveraging opportunities for collaboration to address regional marine and nutrient management issues through its integrated framework.

Tatiana Hema, UNEP/MAP, talked about how the Mediterranean's Barcelona Convention and Mediterranean Action Plan, celebrating 50 and 30 years respectively, evolved from focusing on environmental protection to integrating sustainable development. As UNEP's first regional seas programme, its robust legal framework includes seven protocols, such as the pioneering Integrated Coastal Zone Management (ICZM) Protocol, which has inspired global adoption. Through GEF support, the region has achieved tangible outcomes, fostering partnerships among UN bodies, civil society, academia, and countries, addressing emerging issues that inform policy, and embracing innovative approaches. These efforts enhance regional cooperation and capacity, advancing sustainable marine and coastal management.

Wenxi Zhou, IOC Sub-Commission for the Western Pacific (WESTPAC), highlighted the limited progress on SDG 14 and related marine goals, stressing the importance of evidence-based ocean science solutions for biodiversity conservation and sustainable development. He underscored the role of LME projects in translating global goals into local actions and fostering collaboration among governments, academia, communities, private sectors, and regional organizations. He cited the success of a recent regional conference with over 1,200 participants, showcasing advancements in marine spatial planning, coastal habitat mapping, and biodiversity conservation through innovative tools like eDNA. Regular conferences aim to enhance these collaborative efforts and further SDG progress.

Iryna Makarenko, Black Sea Commission (BSC), introduced the Black Sea region and the unique challenges it faces, including biodiversity conservation, nutrient pollution, and riverine loads from the Danube River, compounded by geopolitical issues and its isolation from the world ocean. LME projects are instrumental in fostering regional collaboration and addressing global commitments, despite the region's specific needs and constraints. Efforts include partnerships with European and global regional seas, initiatives like source-to-sea pollution management, and collaborations with organizations such as UNESCO, FAO, and the World Bank. Ongoing projects aim to address biodiversity and MPAs, with support from donors like GEF and UNEP, ensuring a coordinated approach to tackle environmental and conservation priorities.



The panel discussion emphasized the vital role of LMEs in environmental diplomacy, the integration of biodiversity and ocean governance, and the importance of regional cooperation in addressing global environmental challenges. More specifically, the panelists debated around the following key points:

- LMEs serve as an important vehicle for environmental diplomacy fostering bilateral and regional collaboration, even in politically sensitive areas like the Gulf of Mexico and South China Sea. These frameworks offer practical pathways to address regional environmental challenges, leveraging both political and scientific cooperation. LMEs facilitate cross-border conservation efforts, e.g. in the South China Sea and Caribbean, including collaborative marine turtle conservation involving countries like Vietnam, the Philippines, and Indonesia.
- LMEs and regional seas are essential for addressing shared environmental challenges. LMEs intersect with RSCs, which carry political mandates and protocols, providing a structured platform for environmental diplomacy, political and scientific cooperation across borders, and supporting initiatives, such as the BBNJ process. In the Caribbean, for example, LMEs have facilitated collaboration between RSPs, fisheries management bodies, and national governments, ensuring balanced decision-making across sectors.

- Successful regional collaborations demonstrate effective management of riverine and marine pollution through S2S approaches. Establishing regional governance mechanisms for integrated ocean and water management is challenging due to different geographic interpretations, necessitating greater focus on national-level governance alongside regional collaboration.
- LMEs complement RFMOs on addressing IUU fishing, translating fisheries management rules into actionable outcomes at the local level, benefiting both frameworks.
- There is a need for better alignment across global agreements, regional bodies, and fisheries management frameworks to enhance integration and prevent duplicative efforts, ensuring more effective implementation of marine and biodiversity goals. The Kunming Biodiversity Fund and contributions from GEF offer significant opportunities for funding integrated ocean and biodiversity management projects.
- Ensuring the sustainability and scalability of LME projects remains a challenge due to resource limitations and diverse development levels. However, increased collaboration across sectors (fisheries, science, and governance) with international stakeholders like the UNDP, UNESCO, and FAO, is critical for long-term success.

Session 4 – From LMEs to High seas

Session chair: Isabelle Vanderbeck (UNEP)

Rapporteur: Zoe Rochet (IW:LEARN)

Objectives of Session: To address the potential engagement and role of LMEs in the conservation and sustainable use of ABNJs in view of the latest developments on the BBNJ Agreement.

Time	Title	Name
15.00- 16.15	 Update from GEFSec on ABNJ/BBNJ 	Andrew Hume (GEFSec)
	 Common Ocean Program CP: Sargasso Sea CP: Deep Sea Fisheries 	Viktoria Varga Lencses (FAO) David Vousden (UNDP GEF Sargasso Sea Project) Nicola Ferri (GFCM)

Following an initial ice-breaker trivia on ABNJ and BBNJ, the session on "From LMEs to High Seas" brought together five panelists to discuss the involvement of the LME community and the opportunities presented by the potential ratification of the BBNJ treaty.

Viktoria Varga Lencses, FAO, presented the Common Oceans Program, a flagship initiative funded by the GEF and implemented with UNEP and UNDP, fostering global partnerships to address challenges in ABNJ. Involving 65 partners from governments, intergovernmental organizations, academia, and industry, the program focuses on sustainable management and governance of ABNJ through five Child Projects. These include initiatives targeting tuna and deepsea fisheries, multi-stakeholder stewardship in specific regions like the Sargasso Sea, and cross-sectoral cooperation in the Pacific. Key activities include promoting ecosystem and precautionary approaches, mitigating bycatch, developing environmentally friendly fishing gear, and advancing governance frameworks. The program also emphasizes connectivity between ABNJ and EEZs, highlighting synergies with LME methodologies like TDA/SAP to address multi-sectoral concerns. The notion of connectivity is not only important within and beyond the ABNJ but also vertically. In addition, it is important to consider jurisdictional responsibilities through intergovernmental agreements (e.g. IMO, ISA, RFMOs, RSPs).

David Vousden, UNDP GEF Sargasso Sea Project, expressed his appreciation for the approach used in the Sargasso Sea project, particularly the integration of an implementation plan within the SAP. This approach ensures that when the project reaches its conclusion, a concrete and actionable plan is already in place, streamlining the transition to further funding and execution. Mr. Vousden drew a parallel to similar practices in freshwater management, particularly in watershed projects financed by the GEF. In these freshwater initiatives, the SAP serves as a key

policy instrument, guiding the development of a "basin action plan" that outlines steps for conservation, sustainable resource management, and governance. By embedding an implementation plan from the outset, these projects avoid delays in execution once the planning phase is complete. This approach has proven effective in freshwater contexts and is now being adapted for marine conservation efforts, such as the Sargasso Sea project, underscoring the value of cross-sectoral learning and reinforcing the importance of structured, policy-driven conservation strategies.

Nicola Ferri, General Fisheries Commission for the Mediterranean (GFCM), provided an overview of the Deep Sea Fisheries Child Project, emphasizing its significant progress and achievements in its second year of implementation. He began by acknowledging the project's alignment with global discussions, particularly within the UN framework on deep-sea fisheries and vessel regulations. A key accomplishment has been the development of e-learning courses aimed at strengthening the management of deep-sea fisheries in ABNJ, providing accessible knowledge resources for stakeholders. He highlighted the project's contribution to the review of deep-sea fisheries guidelines, which serve as an essential reference for policymakers and industry leaders. Additionally, Mr. Ferri introduced the Deep Sea Fisheries Technical Forum, a novel online platform that has successfully facilitated rapid and extensive expert collaboration. The forum allows professionals from around the world to exchange knowledge and best practices, fostering a more dynamic and inclusive approach to fisheries management. One remarkable aspect of the project is its strong engagement with the private sector, ensuring that industry players are not just consulted but actively involved in shaping fisheries governance. He noted that this collaboration has led to meaningful contributions from industry stakeholders, reinforcing the project's credibility and effectiveness. Mr. Ferri also outlined the project's broader partnership framework, which includes RFMOs and other key institutions. He explained that while FAO serves as the implementing agency, the GFCM has played a crucial role in executing project activities. In conclusion, he underscored the importance of multi-stakeholder collaboration in achieving sustainable deep-sea fisheries management and invited the audience to explore additional project resources through QR codes.

Miriam Balgos, Global Ocean Forum, gave a recorded presentation on strengthening the LME mechanism as a regional approach to achieve BBNJ objectives. She recalled the cross-sectoral project objectives to strengthen capacity for sectoral and cross-sectoral cooperation and coordination and to work with partners in the project's pilot regions to improve understanding of ABNJ issues and governance. Ms. Balgos underscored that the scope/spatial extent of regional ocean governance (ROG) varies and may include EEZs as well as adjacent high seas. It is important to remember that marine ecosystems, resources, species and effect of marine pollution transcend boundaries. To this end, good governance of the ocean cannot be achieved by States acting individually but require regional organizations, mechanisms and instruments to enable cooperation and coordination. Key regional ocean governance frameworks include Regional Seas, Regional Fishery Bodies, Regional Economic Forums and LMEs, emphasizing the role of the LME approach since the concept was introduced in 1995. Ms. Balgos highlighted the need to strengthen the governance dimension of LME mechanisms through coordination between activities under LME projects and other ROG mechanisms, such as the RSPs and RFMOs,

strengthening science-policy interface and exploring biodiversity conservation, mitigation and adaptation potential of vast high seas. She concluded by identifying areas where the Cross-sectoral Project can support the LME approach to regional ocean governance, highlighting the need to incorporate ABNJ in the TDA/SAP methodology.

The Q&A session covered key aspects of partnerships, funding, and implementation strategies under the Common Oceans Program and the BBNJ Agreement. Discussions addressed the financial commitment of \$34 million from the GEF to support national and regional efforts for BBNJ ratification and implementation, with \$29 million allocated for national support and \$5 million for global and regional projects. The importance of legal assistance, political engagement, and awareness-raising efforts was stressed, along with mapping existing initiatives to avoid duplication. Plans for capacity-building activities and regional dialogues, were discussed to support countries in understanding and operationalizing the BBNJ Agreement. Finally, the need for collaboration and inclusivity in ongoing and future conservation efforts was reaffirmed, encouraging stakeholders to engage in shaping these initiatives.

Break-out session C

Time	Title	Name
16.30 -	i. Future of science in LMEs	Virginia Gorsevski (STAP)
17.30	ii. Update of TDA/SAP	Dimitris Faloutsos (GWP-MED)
	iii. ABNJ and LMEs	David Vousden (GESAMP)

Session C: Highlights of the Break-out discussions

The key highlights from the group discussions are provided below:

i. Future of science in LMEs

- Challenges in science and data communication: A major challenge discussed was the
 difficulty in framing science and data in ways that resonate with countries and policy
 makers, particularly when they view it as data rather than actionable science. The
 importance of clear, effective communication and the role of social media in spreading
 important findings (like the biofouling study) was emphasized, especially when industry
 is involved in data collection.
- Need to revise Indicators for monitoring progress: There was a strong consensus on the
 need to revisit how indicators are used to measure progress in projects. The current focus
 on process-based indicators needs to evolve to include outcome-based measures that can
 track improvements, particularly in a way that is both context-dependent and feasible
 across diverse projects.

Opportunities for collaboration and data sharing: The discussion also highlighted the
potential for using science as a tool to foster connections and collaboration, particularly
in regions like the South China Sea. It was proposed to set up working group(s) to revisit
key questions from past projects, refine indicators, and share more detailed socioeconomic data to better assess the impacts of LME-related projects.

ii. Update of TDA/SAP

As participants in this group discussion had strong knowledge of the SAP components, the group adopted a reverse approach—instead of focusing on what should be included in a TDA, discussions revolved around what would make a SAP implementable. Participants noted a lack of sufficient time for practitioners to engage deeply with TDA/SAP processes. There was broad agreement that TDAs and SAPs remain essential in guiding environmental management, but a case-by-case analysis is necessary to determine how best to utilize them in different contexts. This includes considering soft measures, investment-based actions, and data-driven decision-making.

Key Considerations for Strengthening TDA/SAP Implementation:

1. Causal Chain Analysis and Data Integration

- A simplified Causal Chain Analysis (CCA), based on the Drivers-Pressures-State-Impact-Response (DPSIR) model, was suggested to improve TDA flexibility.
- o TDA methodology should be adaptive to data availability, with recognition that more comprehensive data strengthens decision-making.

2. Upstream and Downstream Linkages in IW

- Many basin management projects consider downstream effects, but their design does not always account for specific marine area needs.
- Integrating marine considerations into TDA from the outset can change how terms of reference, expert selection, and budget allocations are structured.

3. Sectoral and Geographical Integration

- Sectoral integration was identified as crucial for successful TDA/SAP implementation.
- An example from the South China Sea project demonstrated how energy security emerged as a key environmental issue, raising the question of whether energy should be explicitly incorporated into governance frameworks.

4. Governance and Stakeholder Engagement

- Stakeholder engagement must be paired with a communication plan from the beginning.
- Governance analysis is often missing in TDA processes. A comparative governance review should be conducted to align sectoral policies, such as agriculture and water management.

While the ecosystem approach remains central to SAP development, but the discussion explored whether sector-specific issues (e.g., energy security) should be used as entry points to build political traction. Experiences from the Mediterranean suggest that leveraging politically relevant

issues (e.g., energy) can enhance policy support and prioritization of SAP actions. A broader review is needed to validate this approach across different global regions and assess whether it could be formally incorporated into updated TDA/SAP guidelines.

In addition, the need for better integration SAP with the national reporting systems was highlighted, ensuring that SAPs align with regional and national strategies, which would also enhance financing opportunities. SAPs should also be linked to climate change (Nationally Determined Contribution (NDCs); National Action Plans (NAPs) and biodiversity (CBD, other international agreements), which would hence automatically engage relevant governmental institutions and stakeholders, increasing national ownership and long-term sustainability.

iii. ABNJ and LMEs

This group discussion started with a scoping presentation by David Vousden (GESAMP) on LMEs and their key defining criteria, highlighting some of recommendations of the 2017 publication on LMEs & Sustainable Development. These included ensuring land/sea linkages; need to incorporate ABNJ into LME/TDA/SAP processes; ensuring incorporation of climate change into LME TDA/SAP processes; ensuring LME boundaries defined by TDA and science not by geopolitical considerations. He gave the example of how the system boundary for Agulhas and Somali Current Large Marine Ecosystem (ASCLME) was defined much more in line with the region's main current systems and other oceanographic criteria vs. the 'accepted' LME boundaries which align more with EEZ. Mr. Vousden then provided a comparison of the BBNJ Treaty and the LME process, stressing the close alignment between the TDA/SAP approach and the BBNJ Area-Based Management approach and potential synergies in managing transboundary marine environments, as illustrated by the Sargasso Sea. Finally, he provided some more information on GESAMP, its potential role as a scientific advisory body for LMEs and the issues/potential areas for review as discussed so far with UNDP and GEF. These include:

- Potential role GESAMP as scientific advisory body to LME community
- Review of Conclusions and Recommendations of the 2017 Report LME strategic management processes and goals; how much they were followed up/implemented?
- Identify missing info/emerging issues pertinent to LMEs (ocean acidification, climate change)
- How to better mainstream LME approach and programs into global processes and frameworks such as CBD, UNFCCC etc.
- Consideration of possibility to define criteria for new LMEs within ABNJ
- Longer term role of GESAMP as part of LME community in an advisory capacity



Finally, Mr. Vousden outlined the following possible next steps for discussion:

- Drafting of a Terms of Reference for a Scoping Exercise through a Correspondence Group following the feedback from the 23rd LME Consultation Meeting
- A preliminary Scoping Exercise that identifies the issues and concerns raised so far in relation to LME designations and connectivity as noted above. This would also identify some potential solutions.
- Agreement on the way forward to further refine this Scoping Paper and its Conclusions and Recommendations in time for the 51st Annual GESAMP Meeting 2-6 September in Monaco. Here the intention would be to decide on the best way forward for GESAMP to support the LME Community (e.g. A possible longer-term Working Group)
- Based on the outcome of the discussions at the Annual GESAMP meeting, A presentation would then be given to the 10th GEF International Waters Conference 23-26 September in Uruguay on the proposed support process.

In reaction to Mr. Vousden's presentation:

- Gonzalo Cid (NOAA) inquired about GESAMP's diversity and expertise in conducting this exercise. Mr. Vousden clarified that a GESAMP member would chair the Working Group, supported by additional scientific experts.
- Julian Barbière (UNESCO-IOC) supported GESAMP's involvement but emphasized the need to clearly define its added value.

- Lorenzo Galbiati (FAO) noted that while FAO fisheries experts were open to collaborating with GESAMP, the LME framework does not always align with fisheries management units, which may present challenges.
- Gonzalo Cid (NOAA) suggested revisiting traditional LME boundaries to better incorporate ABNJ considerations.
- Andy Hudson (independent consultant) emphasized the importance of integrating the new ABNJ legal framework into LME management, ensuring consistency with both national/regional policies and ABNJ treaty requirements.
- As next steps, it was agreed that Mr. Vousden will draft and circulate Terms of Reference (TOR) for a scoping paper on GESAMP's role in supporting LMEs. The LME group will review and provide feedback. The revised TOR will be then shared at the next GESAMP meeting in September for further discussion.

Day 3: Wednesday 5 June 2024

The opening remarks noted that June 5 marked World Environment Day, with this year's theme focusing on land degradation, drought, land restoration, desertification, and drought resilience. Although not directly focused on LMEs, the discussion highlighted the interconnectedness of environmental challenges, underscoring the link between land degradation and ocean health. To mark the occasion, a short video provided by UNEP was shown, and additional project videos were scheduled to be shared during the coffee break.

Session 5 – Sustaining results and impacts of LME projects

Session ch	air: Adnan Awan (UNDP)	
Rapporteu	r: Sofia Tzavella (IW:LEARN)	
•	of Session: To address how to sustain results a on with the private sector and sustainable finan	. , , , ,
Time	Title	Name
09.30- 10.30	 Panel discussion Perspectives of industry partners and government representatives as beneficiaries Funding partnerships: Perspectives of other donors 	Claire Blanchard (PEW/BNA) Gyorgyi Gurban (IMO) Cyrille Barnérias (OFB)

Adnan Awan, UNDP, introduced the panel on how to sustain marine conservation efforts through secured, innovative and sustainable funding.

Claire Blanchard, Blue Nature Alliance, shared that the organization works with 100 partners across 38 sites, focusing on high seas and transboundary cooperation. A key goal is to ensure that Indigenous peoples are central to project implementation. She highlighted the challenge of ensuring the sustainability of initiatives beyond the organization's lifecycle and stressed the importance of embedding new MPA legislation. She also emphasized the role of LMEs as vehicles for environmental diplomacy. However, she noted the difficulty in generating political will amid financing challenges, suggesting that coalitions are essential for leveraging political support. Human capacity building, especially for MPA management in regions like the Western Indian Ocean, is a priority, and securing sustainable financing remains a significant gap. Ms. Blanchard mentioned the need for innovative financing mechanisms, partnership facilitation, and the recognition that conservation is expensive, requiring shared responsibility across multiple stakeholders.

Gyorgyi Gurban, International Maritime Organization (IMO), highlighted the organization's technical cooperation efforts, including over 20 successful GEF-supported projects aimed at assisting developing countries. She shared the success of the Green Voyage programme, with over 27 million EUR in funding, and emphasized the value of viewing projects as portfolios, with a particular focus on climate change. IMO has facilitated Global Industry Alliances, including partnerships addressing low-carbon shipping and biofueling challenges, where competitors collaborate to tackle climate issues. She underscored the importance of life cycle assessments and the need for secretariat support for biofouling projects. Ms. Gurban stressed the need for closer collaboration with the financial community, particularly for climate-related initiatives, and noted that investments are more critical for ports than ships. IMO is working on building countries' capacity to access funds and co-finance projects, though countries are often hesitant to fund initiatives unless their feasibility is assured, which is why GEF grants are frequently used.

Cyrille Barnérias, French biodiversity agency (OfB), stressed that strong stakeholder involvement is essential for effective LME governance, requiring regular technical and political-level meetings and ongoing exchanges. It is crucial to examine why and how countries are investing—or should invest—in LME governance to ensure long-term sustainability. Strengthening management capacity and negotiation skills both at the national and international levels is key to improving decision-making and cooperation. Additionally, securing sustainable financing through mechanisms such as trust funds and strategic use of subsidies is vital. For example, MedFund has successfully contributed to sustaining the results of past LME initiatives, demonstrating the importance of long-term financial planning in marine ecosystem management.

The panel discussion underscored the importance of comprehensive approaches, political commitment, and collaboration among key industry stakeholders. Panelists highlighted the challenges of implementing global agreements, emphasizing the need for dedicated funding and capacity building. Successful partnerships and private sector engagement in sustainable management and financing of protected areas were showcased, providing valuable examples of best practices. These success stories merit wider dissemination to inspire and inform future initiatives.

Break-out session D

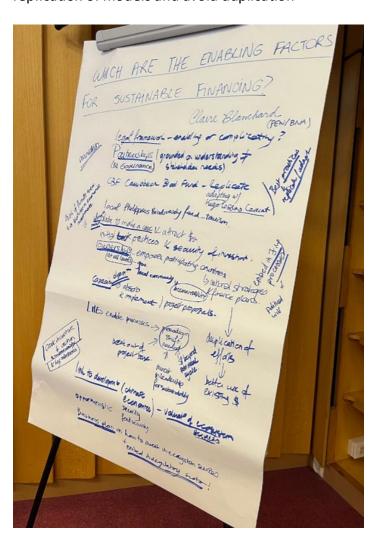
Time	Title	Name	
10.45- 11.45	i. Which are the enabling factors for sustainable financing?	Claire Blanchard (PEW/BNA)	
	ii. How to attract investments towards SAPs priorities?	Cyrille Barnérias/Lucie Linossi (OFB)	
	iii. What is needed to establish partnerships with the private sector for sustainable financing from source-to-sea?	Gyorgyi Gurban (IMO)	

Session D: Highlights of the Break-out discussions

i. Which are the enabling factors for sustainable financing?

The group discussed that achieving effective and sustainable governance requires a strong sense of ownership at all levels, ensuring accountability, creativity, and long-term durability in initiatives. The discussion identified four key enabling factors:

- a) Partnerships are at the core of governance mechanisms, including legal and regulatory frameworks that create incentives for paradigm shift and sustainable efforts, e.g. idea of funding ecosystem services
- b) "Time" and the need for a long-term perspective. Need to get back to the essence of LMEs as a process not a project
- c) Ownership and co-ownership. It's critical for countries and stakeholders to be empowered and supported in their own strategies, e.g. embedding in existing processes etc. It's equally important for countries to ensure commitment and be accountable.
- d) Best practice and lessons learned, sharing innovation and best practice to inspire replication of models and avoid duplication



ii. How to attract investments towards SAPs priorities?

The group summarized the key discussion points as follows:

- 1) Create a favorable environment
 - a. Improve Knowledge on Conservation finance
 - b. Advisory team in multilateral development banks
 - c. Reaching out to governments to increase budget dedicated to conservation

2) Building the case:

- a. Panels with Banks to raise awareness
- b. Build and promote business cases and investment plans. Build cases for MPA using IUCN Green list gap analysis
- c. Pre-feasibility studies = Enabling conditions → pipeline (India 4% of profits to be channeled for conservation)
- d. Demonstrate return on investment
- e. Roundtable with tech providers & banks + Shark tanks
- f. Linking fisheries to MPAs & Other Effective Conservation Measures (OECMs) related to fisheries
- 3) Work on regulatory Frameworks in parallel, regulation for public private partnerships
- 4) Look into various sources of financing:
 - a. Carbon credits: examples in Africa, Colombia.
 - b. Be aware of the work ongoing on Biodiversity credits (International Advisory Panel on Biodiversity Credits IAPB)
 - c. Be careful with CSR money that can be greenwashing
 - d. Blended finance can be used to derisk private investment
 - e. Payment for Ecosystem Services (PES)



iii. What is needed to establish partnerships with the private sector for sustainable financing from source-to-sea?

The participants highlighted the importance of the following success factors when establishing partnerships with private sector:

• **Early Engagement**: Establish partnerships with the private sector from the outset and plan specific project activities accordingly.

Best Practices from IMO:

- Global Industry Alliance (GIA): A partnership with business leaders providing financial and in-kind technical support for implementation.
- IMO-EBRD FINSMART Initiative: Engages financial institutions early to develop innovative financial mechanisms for greener shipping and project sustainability, with follow-up investment pilot activities.

Challenges for Upscaling:

- Multilateral Development Banks (MDBs) often require a proven business case before committing investment.
- Early involvement of MDBs in project implementation can help align project results with investment-ready outputs.

• Further Information:

- Global Industry Alliance ongoing work and plan ahead
- FIN-SMART Roundtable



Session 6 – Towards IWC10, UNOC 2025 and GEF-9

Session chair: Lorenzo Galbiati (FAO)

Rapporteur: Malek Ameri (IW:LEARN)

Objectives of Session: To design a roadmap on how to position LMEs in upcoming events and processes and agree on a vision for LMEs in upcoming events

Time	Title	Name
11.45- 12.15	LMEs in IWC10Road to UNOC 2025GEF-9	 Claudette Spiteri (UNESCO-IOC & IW:LEARN) Cyrille Barnérias (OFB) Andrew Hume (GEFSec)

Claudette Spiteri (UNESCO-IOC & IW:LEARN) provided an update on the organization of the Tenth International Waters Conference (IWC10), the flagship event for the IW portfolio. She presented the current draft agenda, including the pre-conference workshops, and an overview of the received proposals for events, sessions and presentations. In total, 200 proposals were received, representing 81 projects. These included 106 proposals for sessions, of which 71 for session leads. 21 out of 71 proposals concerned LMEs.

Cyrille Barnérias (OfB) gave an overview of the upcoming events of interest to the participants, including:

- UN Ocean Conference: Scheduled in Nice, South of France, co-organized by France and Costa Rica, from 9 13 June 2025. This follows the first UN Ocean Conference in New York and the second in Lisbon in 2022, aligning with the 2030 agenda to achieve SDG 14
- Back-to-back special events:
 - 4-6 June : One Ocean Science Congress, Nice
 - 7 June: Maritime ports meeting, Nice
 - 7 June: Ocean Rise and Resilience Summit, Nice
 - 7-8 June: Blue Economy and Finance Forum, Monaco
 - RSPs and RFMOs TBC

He also questioned about the possibility to have special event at UNOC focussing on LMEs.

- International dialogues:
 - Immersed In Change, June 2024 San José, Costa Rica
 - COP 16 CBD, October 2024 Cali, Colombia
 - Blue Africa Summit, October 2024 Tanger, Morocco
 - UNOC, June 2025 Paris, France
 - IMPAC 6, 2027 Sénégal

Andrew Hume (GEFSec) informed about the dates and steps for the development of the GEF-9 strategy, indicating that there are no major changes foreseen in terms of allocation to IW. He confirmed the sustained support of IW focal area to the LMEs. He informed that GEFSec also provided information on the expectation that IW will manage the funds for BBNJ and commented on the intention to include planning funds in IPs under GEF-9.

At the end of the session, **Tatiana Hema** (UNEP/MAP) announced that the Barcelona Convention Secretariat is offering to co-host LME24 meeting in Athens in 2025.

Session 7 – Closing session

Session chair: Vladimir Mamaev (UNDP)				
Rapporteu	Rapporteur: Fernanda Vilar (IW:LEARN)			
Objectives of Session: To summarize key outcomes and next steps				
Time	Title	Name		
12.15- 12.30	Key outcomes and conclusions	Vladimir Mamaev (UNDP) Vidar Helgesen (UNESCO-IOC)		

Vladimir Mamaev (UNDP) provided an overview of the key outcomes from each session (see Executive Summary). He emphasized that despite the challenges encountered in the LME implementation, the discussions, ideas, and collaborations forged in this gathering will continue to shape the future of LMEs, ensuring that marine ecosystems remain protected for generations to come.

Vidar Helgesen, Executive Secretary of UNESCO-IOC, closed the meeting by emphasizing the importance of integrating science and data into marine ecosystem management, aligning with IOC priorities. He highlighted the United Nations Ocean Decade as a key framework for advancing ocean science and translating it into actionable solutions. Notably, he introduced the Sustainable Ocean Planning Program, which supports transboundary cooperation through ecosystem-based management and marine spatial planning. Mr. Helgesen stressed the need for co-design and collaboration among governments, industries, and civil society, reinforcing the Ocean Decade's commitment to science for sustainable development.

Mr. Helgesen outlined priority deliverables from the Ocean Decade Conference in Barcelona, including expanding ocean observations, enhancing research on multiple stressors, developing a digital ecosystem for open-access data, and advancing marine technologies. He encouraged the LME community to engage with these initiatives, leveraging them to strengthen governance and sustainability efforts. Mr. Helgesen concluded by expressing appreciation for the discussions, thanking key partners such as the GEF Secretariat, UNDP, UNEP and IW:LEARN, and expressing anticipating to continuing these efforts at the next major gathering in Uruguay in September 2024.



The Chair closed the meeting at 12.30.

List of Annexes

- i.
- Detailed Agenda List of participants ii.

Annex i: Detailed Agenda

DAY 1: Monday 3 June 2024 (afternoon)

Session 1 - Opening

Session Chair: Julian Barbière (UNESCO-IOC)

Rapporteur: Fernanda Vilar

Objectives of session: To open the meeting, welcome the participants and set the scene for the

subsequent sessions and discussions.

Time	Description	Name	Format of session
Andrew Hume (GEFSec) Adnan Awan (UNDP) Hartwig Kremer (UNEP) Gonzalo Cid (NOAA) • Key developments in the ocean landscape since LME22 meeting	• Welcome	Andrew Hume (GEFSec) Adnan Awan (UNDP) Hartwig Kremer (UNEP)	Plenary; individual addresses
	Plenary, presentation		
	objectives of LME23 meeting &	Claudette Spiteri (IW:LEARN)	Plenary, presentation

Session 2 – LME Implementation Progress

Session Chair: Vladimir Mamaev (UNDP)

Rapporteur: Sofia Tzavella

Objectives of session: To highlight the progress in the LME implementation by showcasing key results in terms of scientific results & tools; partnerships; governance, innovation and SIDS

Time Descrip	otion Name	Format of session
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14.30- 16.15	5763 ISLME 10069 BOBLME & 10703 GotFish 10800 PROCARIBE+ 6920 ATSEA-2 10685 – Blue & stronger Med 5538 SCS-SAP 10558 Fisheries & EBM MS 9129 - GloFouling Partnerships Updated LME bibliography	Rudolf Hermes (expert) Yumi Son (IUCN) & Angela Lentisco (FAO) Sonia Gautreau (UNOPS) Handoko Adi Susanto (PEMSEA) Carole Martinez (MedPAN) Anders Poulsen (UNOPS) Anna Carlson (GFCM) Lilia Khodjet el Khil (IMO) Claudette Spiteri (IW:LEARN)	 Highlights from LME portfolio (6-7 mins) Two slides per intervention. Template to be provided Max. 8 interventions Two slides: Introduce project/region etc. Describe highlight (scientific results & tools; partnerships; governance, innovation and SIDS)
Coffee (16.15-16.30)		
16.30- 17.30	 Break out group session A Implementation challenges of LME projects (Gonzalo Cid, NOAA) Towards an ocean governance simulation game (Klaudija Cremers, IDDRI) Gender mainstreaming and stakeholder participation/engaging youth and civil society (Virginia Gorsevski, STAP) 		
17.30- 18.00	Reporting and wrap up Group photo	Day 1	

DAY 2: Tuesday 4 June 2024		
09.15- 09.30	Recap of Day 1 and introducing Day 2	

Session 3 - Opportunities and challenges for advancing LMEs

Session Chair: Andrew Hume (GEFSec)

Rapporteur: Claudette Spiteri

Objectives of session: To highlight opportunities and address challenges related to a number

of topics of interest to LMEs

Time	Description	Name	Format of session
09.30- 10.05 (35 mins)	• Latest from the Ocean Decade (Ocean Vision 2030; LME satellite event at ODC; endorsement of LME projects) • Updates from STAP	Niccolo Bassan (UNESCO-IOC) Claudette Spiteri (UNESCO-IOC & IW:LEARN) Julian Barbiere (UNESCO-IOC) Virginia Gorsevski (STAP)	Presentation
10.05- 10.45 (40 mins)	Integrated approaches • Source-to-Sea: LMEs & RBOs	Ruth Mathews (SIWI) Laverne Walker (IWEco; UNEP Cartagena) Handoko Adi Susanto (PEMSEA) Dimitris Faloutsos (GWP-MED)	S2S talk show

	National & regional integration	Mohamad Kayyal (MedProgramme; UNEP/MAP)	Presentation			
Coffee (10	Coffee (10.45-11.00)					
11.00- 11.30 (30 mins)	 Update on IPs Clean and Healthy Ocean Blue and Green Islands Circular Solutions to Plastic Pollution 	Andrew Hume (GEFSec) Lorenzo Galbiati (FAO) Adnan Awad (UNDP) Isabelle Vanderbeck (UNEP)	5 mins per presentation			
11.30- 12.30	 management Raffaella Guida - Surrey System for Fisheries Model Miren Gutierrez - ODI - I Water Fishing Fleets Anders Christian Erichse Ecosystems at Scale with Virginia Carvalho - Aqual recycling 	(World Cafe) I - SEA Success tailored advisory Space Centre - Space-Based Monitoring and Anomaly Detection UU fishing and unsustainable be In - DHI Denmark - Mapping and Copernicus Sentinel- 2 Imagen InSilico - PhosValue digital soluta	aritime Surveillance n ehaviour of Distant d Monitoring of ry (MCSAV) ntions for nutrient			
12.30- 14.00	LUNCH					

Session 3 - Opportunities and challenges for advancing LMEs (cont.)

Session Chair: Hartwig Kremer (UNEP)

Rapporteur: Fernanda Vilar

Objectives of session: To highlight opportunities and address challenges related to a number

of topics of interest to LMEs

14.00- 15.00	Synergies with regional processes	Mahesh Pradhan (COBSEA) Tatiana Hema (UNEP/MAP) Iryna Makarenko (BSC) Laverne Walker (UNEP Cartagena) Wenxi Zhu (WestPac)	Panel discussion 1. How do the LME projects contribute to advancing the regional processes? 2. What are the opportunities and challenges for LME projects?
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Session 4 – From LMEs to high seas

Session Chair: Isabelle Vanderbeck (UNEP)

Rapporteur: Zoe Rochet

Objectives of session: To address the potential engagement and role of LMEs in the conservation and sustainable use of ABNJs in view of the latest developments on the BBNJ Agreement.

Time	Description	Name	Format of session			
15.00- 16.15	Update from GEFSec on ABNJ/BBNJ	Andrew Hume (GEFSec)	Panel (1 slide)			
	 Common Ocean Program CP: Sargasso Sea CP: Deep Sea Fisheries 	Viktoria Varga Lencses (FAO) David Vousden (UNDP GEF Sargasso Sea Project) Nicola Ferri (GFCM)	How does the Common Ocean Program contribute to BBNJ?			
Coffee (16.15-16.30)						
16.30- 17.30	 Break-out group session C Future of science in LMEs (Virginia Gorsevski, STAP) Update of TDA/SAP (Dimitris Faloutsos, GWP-MED) 					

• ABNJ and LMEs (David Vousden, GESAMP)

17.30- 18.00	Reporting, discussion and wrap-up Day 2
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DAY 3: Wednesday 5 June 2024 09.1509.30 Recap Day 2 and introducing Day 3 09.30

Session 5 - Sustaining results and impacts of LME projects

Session Chair: Adnan Awan (UNDP)

Rapporteur: Sofia Tzavella

Objectives of session: To address how to sustain results and impacts of LME projects through collaboration with the private sector and sustainable financing

Time	Description	Name	Format of session
09.30- 10.30	 Perspectives of industry partners and government representatives as beneficiaries Funding partnerships: Perspectives of other donors 	Gyorgyi Gurban (IMO) Cyrille Barnérias (OFB) Claire Blanchard (PEW/BNA) Rene Gomez (CAF) Eric Atsou Edem Amoussou (BOAD)	Panel discussion 1. What is required to sustain results and impacts of LME projects? 2. Attracting/designing sustainable financing that could be adopted by LMEs 3. Facilitating and sustaining financing through LMEs

Coffee (10.30-10.45)

10.45- 11.45	Break-out group session D
	 Which are the enabling factors for sustainable financing? Claire Blanchard (PEW/BNA)
	 How to attract investments towards SAPs priorities? Cyrille Barnérias/Lucie Linossi (OFB) What is needed to establish partnerships with the private sector for sustainable financing from source-to-sea? Gyorgyi Gurban (IMO)

Session 6 – Towards IWC10, UNOC 2025 and GEF-9

Session Chair: Lorenzo Galbiati (FAO)

Rapporteur: Malek Ameri

Objectives of session: To design a roadmap on how to position LMEs in upcoming events and processes and agree on a vision for LMEs in upcoming events

Time	Description	Name	Format of session
11.45- 12.15	LMEs in IWC10 Road to UNOC 2025 GEF-9	Claudette Spiteri (IW:LEARN) Cyrille Barnérias (OFB) Andrew Hume (GEFSec)	Presentations

Session 7 - Closing session

Session Chair: Vladimir Mamaev (UNDP)

Rapporteur: Fernanda Vilar

Objectives of session: To summarize key outcomes and next steps

Time	Description	Name	Format of session
12.15- 12.30	Key outcomes and conclusions	Vidar Helgesen (IOC/UNESCO)	Two paragraphs from rapporteurs of each session
12.30- 14.00	LUNCH		

Annex ii: List of Participants

First Name	Family Name	Organization	GEF project name	GEF project ID
Adnan	Awad	UNDP		
Alessandro	Candeloro	UNEP/MAP	MedProgramme	9607
Alexandra	Oliveira Pinto	Institut du Développement Durable et des Relations Internationales (IDDRI)		
Anders	Poulsen	UNOPS	Implementing the Strategic Action Programme of the South China Sea and Gulf of Thailand	5538
Anders Christian	Erichsen	Danish Hydraulic Institute (DHI)	OIC	
Andrew	Hume	Global Environment Facility Secretariat		
Andrew	Hudson	Consultant	Strengthening the Stewardship of an Economically and Biological Significant Area - The Sargasso Sea	10620
Angela	Lentisco	FAO	Promoting the blue economy and strengthening fisheries governance of the Gulf of Thailand through the ecosystem approach to fisheries (GotFish)	10703
Anna	Carlson	General Fisheries Commission for the Mediterranean	Fisheries and Ecosystem Based Management for the Blue Economy of the Mediterranean - (FishEBM MED) / Fisheries and Ecosystem Based Management for	10560 / 10558

			the Black Sea - (FishEBM BS)	
Carole	Martinez	MedPAN	Build back a blue and stronger Mediterranean	10685
Claire	Blanchard	Blue Nature Alliance		10375
Claudette	Briere Spiteri	UNESCO-IOC	IW:LEARN	10374
Cyrille	Barnérias	French biodiversity agency - OFB		
David	Vousden	GESAMP and UNDP	Strengthening the Stewardship of an Economically and Biological Significant Area - The Sargasso Sea	10620
Dimitrios	Faloutsos	Global Water Partnership	MedProgramme	9687 and 9685
Fatou	SOCK	Food and Agriculture Organization of the United Nations (FAO)	Coastal Fisheries Initiative	9128
Fernanda	Vidar	UNESCO-IOC	IW:LEARN	10374
Frank	Okoth- Menya	Institut du Développement Durable et des Relations Internationales (IDDRI)		
Gonzalo	Cid	National Oceanic and Atmospheric Administration (NOAA)		
Gyorgyi	Gurban	International Maritime Organization	GloFouling and GloNoise	
Hartwig	Kremer	UNEP		
Iryna	Makarenko	Black Sea Commission's Permanent Secretariat		

Isabelle	Vanderbeck	UNEP		
Julian	Barbière	UNESCO-IOC		
Khristine	Gudczinski	UNDP		
Klaudija	Cremers	Institut du Développement Durable et des Relations Internationales (IDDRI)		
Laverne	Walker	UNEP Cartagena Convention Secretariat, UNEP	Integrating Water, Land and Ecosystems Management in Caribbean Small Island Developing States (IWEco)	4932
Lilia	Khodjet El Khil	International Maritime Organization (IMO)	GEF-UNDP-IMO GloFouling Partnerships	9605
Lorenzo Paolo	Galbiati	FAO		
Lucie	Linossi	French Biodiversity Agency - OFB		
Luis	Lombana	FICOSTERRA	OIC	
Maeve	Nightingale	IUCN Asia	Sustainable management of fisheries, marine living resources and their habitats in the Bay of Bengal region for the benefit of coastal states and communities	10069
Mahesh	Pradhan	UNEP COBSEA	Clean and Healthy Ocean Integrated Program (CHO-IP)	11349
Malek	Ameri	UNESCO-IOC	IW:LEARN	10374
Marie	Fischborn	IUCN - International Union for Conservation of Nature	OIC	

Michele	Quesada da Silva	UNESCO-IOC	OIC	
Miren	Gutierrez	ODI (Overseas Development Institute)		
Mohamad	Kayyal	UN Environment Programme / Mediterranean Action Plan		
Niccolo	Bassan	UNESCO-IOC		
Nicola	Ferri	FAO		
Raffaella	Guida	Surrey Space Centre	OIC	
Rudolf	Hermes	FAO-ISLME	Enabling Transboundary Cooperation for Sustainable Management of the Indonesian Seas	5768
Ruth	Mathews	Stockholm International Water Institute		
Sofia	Tzavella	UNESCO-IOC	IW:LEARN	10374
Sonia	Gautreau	United Nations Office for Project Services (UNOPS)	PROCARIBE+	10800
Tatjana	Hema	UNEP MAP	MedProgramme	
Venera	Domi	BSEC PERMIS	Blueing the Black Sea	
Vidar	Helgesen	UNESCO-IOC		
Viktoria	Varga Lencses	FAO	Common Oceans Program	
Virginia	Gorsevski	GEF STAP		
Virgínia	Carvalho	AquainSilico, Lda	OIC	
Virginie	Tilot	MNHN, ASOM		
Vladimir	Mamaev	UNDP		
Wenxi	Zhu	IOC Sub- Commission for the Western Pacific (WESTPAC) &		

		Ocean Decade Coordination Office, UNESCO-IOC		
Yumi	Son	IUCN	Bay of Bengal Large	1252
			Marine Ecosystem	
Zoe	Rochet	UNESCO-IOC		10374