



OCEAN & CLIMATE  
PLATFORM

# THE OCEAN AND CLIMATE CHANGE DIALOGUE

UNFCCC SBSTA 58

13-14 JUNE 2023, Bonn, Germany

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## SYNTHESIS REPORT



### **Abbreviations and acronyms:**

CBD	Convention on Biological Diversity
CDR	Carbon Dioxide Removal
COP	Conference of Parties
FAO	Food and Agriculture Organisation
GBF	Global Biodiversity Framework
GCF	Green Climate Fund
GHG	Greenhouse gas
GST	Global Stocktake
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
MP-GCA	Marrakech Partnership for Global Climate Action
NAP	National Adaptation Plan
NBSAP	National Biodiversity Strategies and Action Plan
NDC	Nationally Determined Contribution
NPS	Non-party Stakeholder
NWP	Nairobi Work Programme
ORRAA	Ocean Risk and Resilience Action Alliance
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCF	Standing Committee on Finance
UAE	United Arab Emirates
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change

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**Disclaimer:** This document summarises the views expressed during the 2023 Ocean and Climate Change Dialogue, and does not represent the opinions of authors. This document does not anticipate the conclusions the co-facilitators will reach in the Informal Summary Report, and does not include the additional inputs collected during the consultations.

## ► INTRODUCTION AND MANDATE:

Chile, in its role as presidency, designated the twenty-fifth Conference of Parties (COP) to the UN Framework Convention on Climate Change (UNFCCC) as the “Blue COP” – to address the link between ocean and climate change in the UNFCCC and in-country. After two weeks of hard-fought discussions among Parties, COP25 made history by integrating for the first time the ocean in the final decision of a UNFCCC COP as it relates to implementing the Paris Agreement. Among the two ocean-related decisions, Paragraph 31 specifically requests the Chair of the Subsidiary Body for Scientific and Technological Advice (SBSTA) to convene “a dialogue on the ocean and climate change to consider how to strengthen mitigation and adaptation action in this context” ([Decision 1/CP.25](#)).

The first Ocean and Climate Change Dialogue took place online in December 2020. It provided a space for Parties and non-Party stakeholders (NPS) to discuss ocean-based climate action, drawing upon the conclusions of the [Special Report on the Ocean and Cryosphere in a Changing Climate](#) of the Intergovernmental Panel on Climate Change (IPCC).

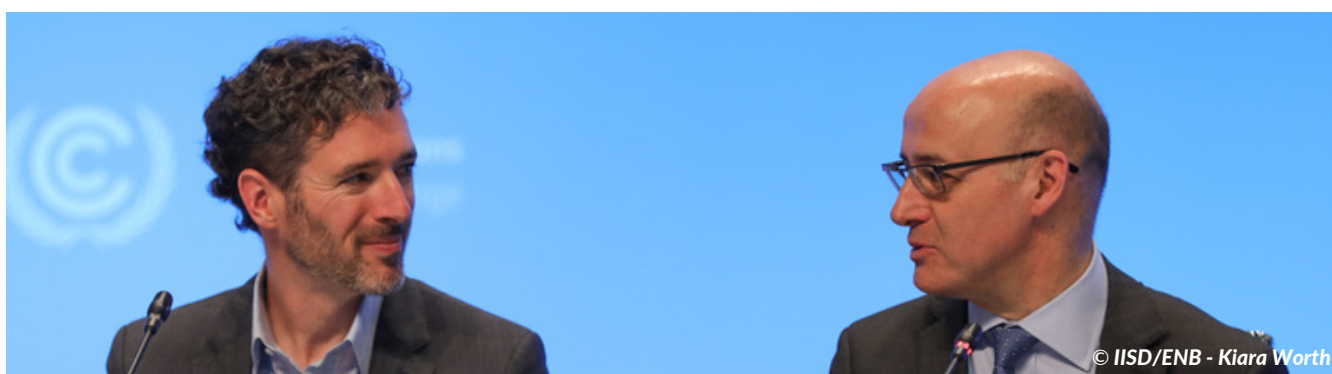
One year later, COP26 reinforced the decision and decided to make the Ocean and Climate Change Dialogue an annual meeting, held under the aegis of the SBSTA Chair (Paragraph 61 of [Decision 1/CP.26](#)), starting in June 2022. Building on the success of the first Dialogue, this new decision further anchored the ocean-climate nexus in the UNFCCC and encouraged Parties to strengthen ocean-based climate action within the context of the existing bodies of the UNFCCC. This step provides the necessary support towards institutionalising ocean-climate action in international climate negotiations. The first annual and in-person Ocean and Climate Change Dialogue was

held on 15 June 2022. It brought together Parties and non-Party stakeholders to identify the next priorities for the ocean-climate nexus at COP27 and beyond. Both welcomed the establishment of a recurring Dialogue, as well as the space it provides to share relevant knowledge and experience, including case studies and lessons learnt from national, subnational and local efforts.

Welcoming the [conclusions of the 2022 Dialogue](#), COP27 clarified the modalities and process of the Dialogue (Paragraph 45 of [Decision 1/CP.27](#)). It was decided that future dialogues will be facilitated by two co-facilitators, selected by Parties biennially, who will be responsible for deciding the topics for and conducting the dialogue, in consultation with Parties and NPS, and responsible for preparing an informal summary report to be presented at subsequent COPs.

The SBSTA Chair appointed Mr. Julio Cordano, Chile, (*on the right on the picture below*) and Mr. Niall O’Dea, Canada, (*on the left*) for the biennium 2023-2024. Building on the COP27 mandate, a [consultation](#) of Parties and NPS was conducted to identify two focal areas for the 2023 Dialogue. This led to the selection of (1) Coastal ecosystem restoration, including blue carbon ecosystems, and (2) Fisheries and food security as focal areas for 2023. The Dialogue was convened on 13 and 14 June 2023, in Bonn, and the [agenda](#) was divided between breakout discussions and presentations of good practices.

**The present report provides a brief overview of the presentations and discussions that took place during the Dialogue, in anticipation of the more detailed summary report that will be prepared by the co-facilitators with the support of the UNFCCC Secretariat.**





## ► HIGH-LEVEL REMARKS AND OPENING

From the oxygen we breathe to the food we eat, the ocean provides vital services to people. As recalled by H.E. **Simon Stiell**, Executive Secretary of the UNFCCC, in his opening remarks, the ocean plays a major role in regulating the global climate system. Indeed, as a powerful carbon sink, the ocean currently absorbs about 30% of the CO<sub>2</sub> emissions annually from human activities. At the same time, coastal ecosystems contribute to protecting shorelines from the growing impacts of climate change while building the resilience of coastal communities and ecosystems.

Yet, the health of our global ocean is declining rapidly. Human activities are altering the ocean's ability to mitigate climate change, nearing the limit of CO<sub>2</sub> it can absorb, with detrimental impacts on its ecosystems and species. In the words of Ambassador **Peter Thomson**, UN Secretary General's Special Envoy for the Ocean, "marine ecosystems are changing as the ocean warms, acidifies and deoxygenates – with adverse effects on aquatic food and local economies."

Despite all the pressures it faces, the ocean still offers enormous potential to help achieve climate, biodiversity and sustainable development objectives (e.g., food security, poverty eradication, livelihoods and employment). Solutions are available through the conservation and restoration of coastal and marine ecosystems including blue carbon ecosystems, climate-resilient and sustainable aquatic food systems, renewable ocean energy, ocean-based transport emissions reductions, and more sustainable coastal tourism.

While the potential of the ocean is being increasingly recognised and tapped, it is crucial to scale and accelerate ocean action, including mitigation and adaptation efforts. **Simon Stiell** urged Parties to further include ocean-based measures in their Nationally Determined Contributions (NDCs) as part of both their climate mitigation and adaptation strategies. The NDC synthesis report showed that 40% of Parties are targeting ocean-based climate action, and that only 26% included an ocean-based climate target policy or measure. In light of these numbers, he recommended using the Dialogue as a stage to share good practices, concrete solutions and recommendations to inform NDCs and National Adaptation Plans (NAPs).

At the same time, civil society organisations, united under the Ocean and Coastal Zones of Marrakech Partnership for Global Climate Action (MP-GCA), have been increasingly active, committing to even more ambitious ocean efforts. In that regard, H.E. **Razan al Mubarak**, High-level Climate Champion, welcomed the work conducted by the MP-GCA Ocean to develop sectoral Ocean breakthroughs (i.e., the compass to guide and catalyse ocean action), supported by quantified objectives and enablers to achieve them, such as policy.

Ambassador **Peter Thomson** reflected on enablers, such as the engagement of local communities and finance. He elaborated on the role of science, calling for more scientific knowledge to fill local needs. He also emphasised the goal of the UN Decade of Ocean Science – "The Science we need for the Ocean we want" – and expressed his appreciation to the UN Decade of Ocean Science in driving the production of ocean data. He specifically raised concerns about the critical knowledge gaps around Ocean-based Carbon Dioxide Removal (CDR) techniques, and suggested that the UN General Assembly establish a high-commission to investigate and report back on this subject.

To conclude, **Razan al Mubarak** stressed that, in the run up to COP28, the UAE, in its presidency role, will leave no stone unturned to ensure that the message of placing nature at the heart of the fight against climate change is better known. At the same time, COP28 will see the conclusions of the first Global Stocktake (GST), assessing climate pledges and how they are implemented. It is crucial that the Ocean and Climate Change Dialogue informs the action response discussed at COP28 to effectively advance ocean-climate action under the UNFCCC.





## ► SETTING THE SCENE

### **Presentation by Vladimir Ryabinin, Executive Secretary, Intergovernmental Oceanographic Commission (IOC) of the UN Educational, Scientific and Cultural Organisation (UNESCO) and Assistant Director General of UNESCO**

Coastal blue carbon ecosystems are recognised for their ability to sequester and store large quantities of carbon, in addition to the multiple services they provide to coastal communities including but not limited to climate and coastal resilience, food security and local livelihoods. While it is sometimes applied to other coastal ecosystems, the term “blue carbon ecosystems” refers to mangroves, seagrass and salt marshes – the only ones to have an IPCC-approved guidance (i.e. the Wetlands Supplement) on the measure and extent to which these protections can contribute to a country’s emission reduction efforts. When degraded or destroyed, blue carbon ecosystems release CO<sub>2</sub> into the atmosphere. It is estimated that 0.141-0.466 gigatons of CO<sub>2</sub> could be avoided each year by preventing their degradation.

The IOC launched the Blue Carbon Initiative to understand the scientific background for blue carbon

(e.g., assessment of stocks), and joined the International Partnership on Blue Carbon to build partnerships around blue carbon projects. The UN Decade of Ocean Science for Sustainable Development, which aims to improve our common understanding of the ocean, will be used as a lever to promote blue carbon ecosystems in ocean science and to develop capacity.

In parallel, the IOC is conducting many activities along the “value chain of ocean science” from ocean observation to data management and the formulation of assessment – with capacity development at the heart of it all. The IOC promotes an integrated approach across UN entities to better coordinate ocean science and action, ensuring that climate-smart, ecosystem-focused, ethical and equitable ocean management can deliver for the sustainable blue economy.

### **Presentation by Tristan Tyrrell, Programme Officer, Biodiversity and Climate Change, Convention on Biological Diversity (CBD)**

Adopted in December 2022, the Kunming-Montreal Global Biodiversity Framework (GBF) aims to bend the curve on biodiversity loss. Articulated around 4 goals and 23 targets, the GBF identifies “action and cooperation by all levels of governments and by all actors of society” as a prerequisite for success, and thus calls for an integrated approach. In that regard, the GBF recognises the role and rights of marginalised communities, including Indigenous peoples, and promotes human rights-based approaches for people-positive outcomes. In addition, the GBF is complemented by a package of decisions adopted at CBD-COP15 to secure strong means of implementation (e.g., resources mobilisation, capacity-building, monitoring, cooperation).

The ocean is relevant for numerous targets across the framework, including Target 1 on Spatial Planning, Tar-

get 2 on Ecosystem Restoration and Target 3 on Ecosystem Conservation - often referred to as the “30x30” (i.e., 30% of the Planet effectively conserved and managed by 2030).

The GBF is highly complementary to the climate regime, and there are opportunities to increase the synergies across all the relevant processes. As an example, National Biodiversity Strategies and Action Plans (NBSAPs) are not a standalone document, and should be aligned with NDCs for more consistency at the national level. In that regard, the ecosystem approach, which drives action under the CBD, can help to build bridges at the implementation level.

## Presentation by Tarub Bahri, Fishery Resources Officer, Food and Agriculture Organisation (FAO)

As of today, 800 million people are undernourished and the pressures weighing on food security are only increasing (e.g., growing populations, increasing food prices, climate impacts on our ocean and freshwater systems). In this context, aquatic food has a key role to play, as it can provide proteins and essential micronutrients to hundreds of millions of people with a lower environmental footprint compared to other on-land protein sources. In addition, the aquatic food sector is increasingly important in contributing to local economies – particularly to small-scale fishing communities who account for 40% of capture fisheries production. Moreover, the aquatic food value chains support 600 million livelihoods globally.

Yet, climate change will disrupt the entire aquatic food chain. For instance, the potential catch will decrease in many areas due to migration of species leaving habitat which is no longer conducive to their lifecycle needs.

This is projected to occur more often in areas already experiencing food insecurity and are vulnerable to other aspects of climate change. Therefore, it is crucial to upscale information, solutions and good practices, foster partnerships, and mobilise adequate investment – recognising the role of aquatic food in the climate agenda.

FAO currently fosters the transformation of the sector through its Blue Transformation strategy, based on 3 objectives: (1) Sustainable aquaculture intensification and expansion satisfies global demand for aquatic foods and distributes equally; (2) Effective and efficient management of all fisheries delivers healthy stocks and secure equitable livelihoods; and (3) Upgraded value chains ensure the social, economic and environmental viability of food systems (e.g., new technologies).



From top to bottom, left to right: Dr Vladimir Ryabinin (IOC-UNESCO; Tristan Tyrrell (CBD); Tarub Bahri (FAO)

## ► BREAKOUT DISCUSSIONS

### (1) Coastal ecosystem restoration, including blue carbon

	Moderators	Rapporteurs
1	Loreley Picourt, Ocean & Climate Platform	Tom Hickey, Pew Charitable Trust
2	Kilaparti Ramakrishna, Woods Hole Oceanographic Institution	Marina Antonopoulou, Emirates Nature-WWF
3	Martin Sommerkorn, WWF	Jill Hamilton, Conservation International
4	Lisa Schindler Murray, Rare	Beatriz Marchado Granziera, The Nature Conservancy
5	Ambrosio Yobanolo del Real, Technology Executive Committee	Luz Gil, The Nature Conservancy

#### How can Parties strengthen recognition of coastal ecosystems as assets, to increase investments, and improve processes to protect and restore them?

Participants discussed the need for Parties to recognise and build awareness of the many services and benefits that healthy coastal ecosystems can provide, including climate adaptation and mitigation, coastal resilience, biodiversity protection and local jobs and livelihoods. Knowing the scale and state of coastal ecosystems, such as mangroves and seagrass, was also identified as a key step needed to inform action and investments and improve the processes to protect and restore them.

Additionally, Parties can strengthen knowledge and fill data gaps for their coastal ecosystems via natural capital accounting, mapping, developing strong monitoring and evaluation processes to assess coastal change, and by developing and enhancing national wetlands inventories. Case studies were shared highlighting coastal restoration projects in Belize, Colombia, Costa Rica, Madagascar, Senegal, the Seychelles and the United Kingdom.

Participants also reflected on how Parties can include coastal ecosystems in their NDCs and NAPs for both mitigation and adaptation, which can help signal govern-

ment priorities and mobilise long-term financing for protection and restoration actions. This can further strengthen the integration of coastal ecosystems in ongoing processes under the UNFCCC, including for finance, science, technology, adaptation and mitigation.

Parties can also support partnerships among relevant stakeholders, including governments, civil society, academia, private sector, local communities, Indigenous peoples and other stakeholders. Many examples of these partnerships were highlighted in the discussions, including the International Partnership on Blue Carbon, the Nairobi Work Programme (NWP) Expert Group on Ocean and Coastal Zones, the Mangrove Breakthrough, and Global Ocean Decade for Blue Carbon. Was also raised the approach adopted by the United Kingdom, where a consortium of experts and stakeholders is formed to evaluate the natural capital of the country's ecosystems and advance on methods and guidance on blue carbon assessments (e.g., UK Blue Carbon Evidence Partnership and the Evidence Needs Statement).



## How can Parties further include blue carbon ecosystems (i.e. mangroves, seagrass and salt marshes) as part of their mitigation strategy and what are the key data/knowledge gaps that prevent Parties from doing so?

Participants discussed that Parties can support and invest in blue carbon ecosystem mapping and carbon accounting efforts, and work to close data gaps for blue carbon ecosystems. They also noted the need to increase knowledge of climate impacts on these ecosystems (e.g., heat stress). A challenge that was identified to achieve this was cross-institutional coordination, and the need to collaborate between agencies and ministries to fill blue carbon data and capacity gaps. An opportunity highlighted was for countries to share knowledge and capacity on this topic across global contexts.

Participants stressed that Parties can include blue carbon ecosystems in their greenhouse gas inventories, and several examples were highlighted as case studies. The United States, for instance, includes coastal wetlands in its National Greenhouse Gas (GHG) Inventory. Japan is currently conducting research projects for seagrass meadows to better estimate their carbon sequestration potential, in efforts to include all blue carbon ecosystems in their inventory. Participants

## How can Parties engage with coastal communities, including indigenous peoples, to align direct benefits with better management of coastal ecosystems?

Key themes that emerged included that communities should be involved from the design to the implementation stages of coastal protection and restoration projects, and that Indigenous and traditional knowledge should be at the core of coastal ecosystem restoration, management and protection efforts. In that regard, projects need to be built from the bottom up, and Parties should engage in the earliest stages of the project with Indigenous peoples and local communities to ensure their inclusive and equitable participation in decision-making and benefit sharing. The need to provide coastal communities with more access to data, tools, training and capacity building for coastal restora-

tion was identified, as well as the need to invest in school education and citizen science programs.

Participants also mentioned that achieving high quality restoration and conservation projects can also help attract investments. Discussions further explored some of the available tools and resources available to ensure that blue carbon projects achieve high quality outcomes, such as the [High Quality Blue Carbon Principles and Guidance](#).

Many case studies of strong community and indigenous peoples engagement were presented, such as the work of local and Indigenous communities in Canada to support coastal mapping efforts and the co-design of restoration projects. Other examples included the [Fishing for Climate Resilience project](#) (Indonesia, Philippines, Palau, Micronesia), the [Vida Manglar project](#) (Colombia) and coastal adaptation projects implemented by [Micronesia Trust Fund](#) (Micronesia).



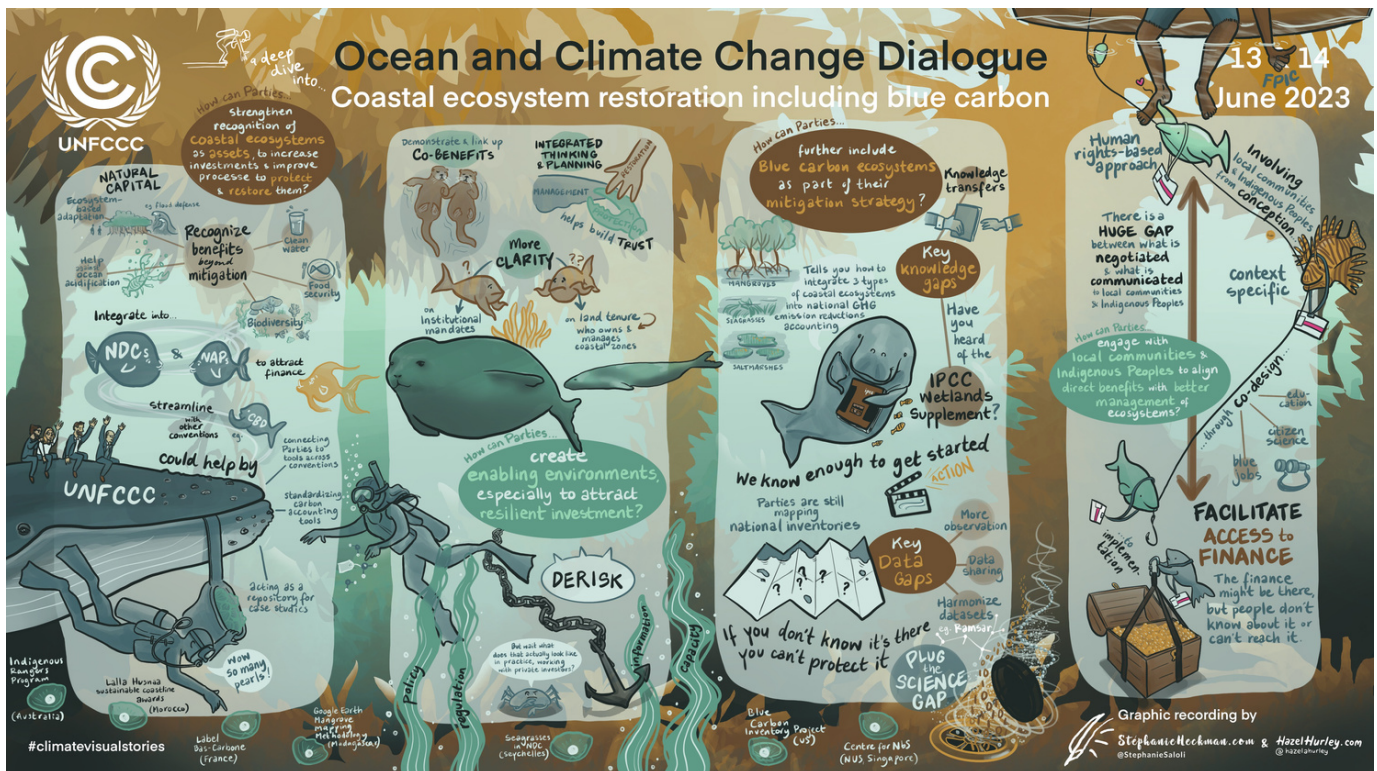
## How can Parties create an enabling environment (e.g. policy, regulation, information, capacity), especially to attract resilient investments for both topical areas?

Participants discussed how to support increased long-term finance for coastal ecosystem restoration, and suggested that tools, such as cost benefit analyses, be developed for policymakers and decision makers. They stressed the need to de-risk investments and diversify investments – especially for the beginning stages of projects to help get them off the ground. Participants also touched on the costs from the loss of coastal ecosystems, pointing out that these costs can make a strong case for increasing investments.

In addition, participants suggested that Parties undertake sustainable ocean planning and Marine Spatial Planning to identify critical areas for climate mitigation and adaptation, and further attract investments. In that regard, the integration of coastal ecosystems in NDCs and NAPs can also send positive signals to increase private investment. Lastly, participants highlighted the need for clarity on land tenure and carbon rights, as well as the need for strengthened institutional arrangements and collaboration.

### Synergies across Coastal ecosystems restoration and Fisheries and food security:

Throughout the discussions, participants insisted on the important link between coastal ecosystems and fisheries, calling for the adoption of a holistic and integrated approach to increase policy coherence and align objectives across sectors. Many highlighted that the protection and restoration of coastal ecosystems can help sustain fisheries productivity and deliver positive outcomes for coastal communities (e.g., food security, coastal resilience). For instance, the example of the “Rahui” (i.e., Tahitian term used to describe an integrated, community-based approach to natural resource conservation) in the French Polynesian islands to protect and manage fisheries was shared.



## (2) Fisheries and food security

	Moderators	Rapporteurs
1	Tarub Bahri, FAO	Marine Lecerf, Ocean & Climate Platform
2	Pauli Merriman, WWF	Matt Frost, Plymouth Marine Laboratory
3	Jessie Turner, Ocean Acidification Alliance	Mitchell Lennan, One Ocean Hub
4	Mark Haver, BlueGreen Generation	Whitney Berry, Ocean Conservancy
5	Karly Kelso, Environmental Defense Fund	Katie Thiessen, YOUNGO

### How can Parties develop sustainable and equitable aquatic food production that are also inclusive, nature-positive and resilient?

Participants emphasised the need for adopting a systems approach looking into the entire value chain – “net to plate”— and addressing the importance of sustainable fisheries and aquaculture, loss and waste, and nutrition needs. Also discussed was the importance of taking an ecosystem approach, ensuring that fish are managed as part of the ecosystem, recognising their role in the carbon cycle and for food security and mainstreaming this into other areas of government (e.g., public health). The importance of reducing and/or eliminating additional threats and pressures to marine and coastal ecosystems was highlighted including related to marine pollution, bottom trawling, by-catch, deep sea-bed mining and land conversion (e.g., mangrove deforestation for shrimp farming). In addition, participants highlighted the need to promote inclusivity and recognition of the diversity within aquatic food systems to tailor climate solutions. This underscores the significance of including small-scale producers, indigenous peoples, women and youth, and other vulnerable communities in the co-design and co-implementation of projects, policies and plans relating to aquatic food systems. Strengthening governance guided by science and data was deemed crucial, calling for adaptive management

practices, ecosystem-based approaches, and context-specific innovations.

Examples from different countries were shared to showcase effective initiatives, including: Australia (active engagement with the Western and Central Pacific Fisheries Commission), Madagascar (community models using locally managed marine areas), Peru (Platform of Indigenous Peoples, National Committee on Climate Change, and law that safeguards traditional artisanal fishing rights), Singapore (“30 by 30” target for sustainable food production, and Singapore Aquaculture Plan), the European Union (“farm-to-fork” approach for fisheries), the Marshall Islands (using solar-powered refrigerators to reduce food loss and ensure food preservation), and the United States of America (Global Food Security Strategy, and involvement with regional fisheries management organizations to address climate-induced changes). The [FAO Code of Conduct for Responsible Fisheries](#) and the [Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries](#) were highlighted as significant policy frameworks in this specific context.



## How can Parties support decarbonisation along the value chains of aquatic food systems (e.g., technology efficiency, replacement of fish-based feed ingredients, production closer to the final market, reduced reliance on fossil fuel)?

Participants stressed the importance of identifying, quantifying, and acting on mitigation opportunities along the aquatic food value chain, from harvesting to processing, distribution and marketing. Key action areas discussed include decarbonising fishing vessels, adopting renewable energy sources for refrigeration, reducing food loss and waste, and promoting low-carbon aquaculture practices such as the adoption of “green” feeds and sustainable systems. Setting ambitious targets for reducing emissions, increasing financial support for small-scale fisheries, and engaging the private sector were highlighted as crucial aspects. Participants also identified strengthening knowledge sharing and capacity building as key steps to drive decarbonisation efforts. The need for reducing harmful fisheries subsidies and redirecting them to support community based sustainable fisheries and aquaculture, in parallel with decarbonisation efforts, were also mentioned. Moreover, improving management was emphasised as essential, particularly with regards

to reducing overfishing, illegal fishing and securing sustainable fisheries, to build the resilience of marine ecosystems and coastal communities, and minimise the carbon footprint.

Examples from countries include Australia (industry-led transitions in fishing practices), [Canada](#) (converting fishing fleets to electric power) and the [United Kingdom](#) (modernisation of the small-scale coastal fleet with replacement engines to reduce fuel use and emission), Sierra Leone and Surinam (engaging the private sector to reduce carbon footprint associated with mangrove deforestation), the Republic of Korea (government mandates for greener shipping vessels, and a low carbon certification system for blue foods), and the United States of America (researching and implementing plant-based fish feeds and non-wild caught fish stock feeds). An additional example was presented by YOUNGO on the decarbonisation of aquaculture, namely “COC2”.

## How can Parties engage with coastal communities, including indigenous peoples, to align direct benefits with better management of coastal ecosystems?

Promoting shared governance and community empowerment emerged as a key theme during the discussions. Integrating indigenous, local and traditional knowledge into decision-making processes, actively involving vulnerable communities while respecting their role as custodians of ecosystems and promoting food sovereignty, and the inclusive and equitable engagement of communities through capacity building and knowledge transfer, were highlighted as crucial approaches. Participants also emphasised the importance of taking a human rights-based approach. Supporting conflict resolution and developing mecha-

nisms to support vulnerable communities, such as compensating fishers and communities for losses due to climate change impacts or for incentivising good behaviors, were also discussed. Examples were shared, such as Australia’s traditionally owned and managed fisheries that involve returning land and fisheries grounds to indigenous communities, Pacific Island nations’ development of an [advanced warning system for Tuna migration](#), Peru’s Platform of Indigenous Peoples and National Committee on Climate Change, and the [AquaCoCo project](#) on aquaculture.



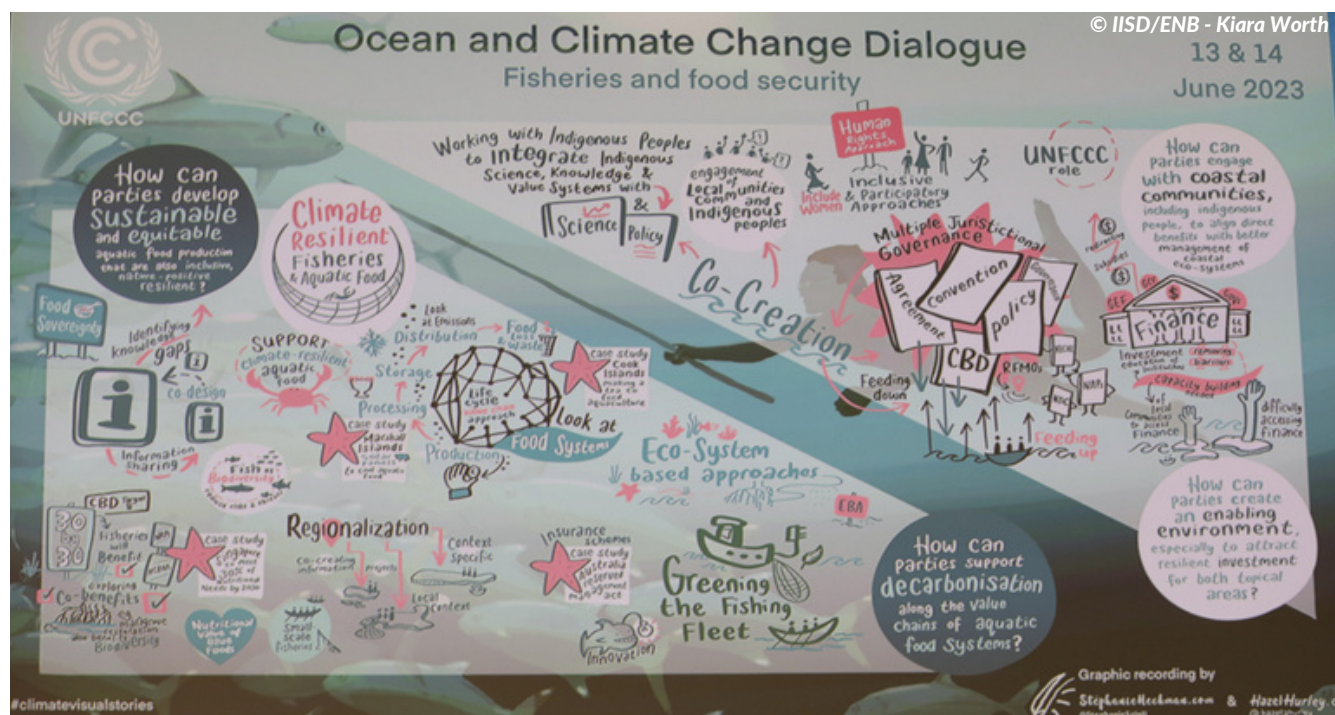
## How can Parties create an enabling environment (e.g. policy, regulation, information, capacity), especially to attract resilient investments for both topical areas?

Acknowledging that interconnected topics require interconnected policies, participants highlighted the need for overarching and comprehensive policy frameworks and funding mechanisms that address the interplay between the ocean, land management, climate change, biodiversity, food security, health, and other related areas. The need to integrate aquatic food climate impacts and solutions within the UNFCCC and other relevant UN bodies and processes was emphasised. Specific calls for inclusion under the UNFCCC include: (1) Standing Committee on Finance (SCF), (2) GST; (3) NWP; (4) Global Goal on Adaptation; and (5) Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security, with a specific proposal on a dedicated workshop on fisheries and aquaculture. Parties were encouraged to incorporate specific actions related to the aquatic food sector for climate change adaptation and mitigation within instruments such as NDCs and NAPs. There is also a need for stronger links and synergies between different treaties and governance systems including the GBF under the CBD.

Strengthening regulatory frameworks, such as implementing port State measures and enhancing monitoring and enforcement against illegal, unreported, and unregulated fishing, was highlighted as crucial to attract investments in sustainable fisheries and aquaculture. Participants also emphasised the impor-

tance of fostering partnerships and capacity building, with a focus on the need for improving knowledge-brokering, networking platforms and support to youth. A two-way approach to capacity building that enhances the awareness and capacity of both communities and funding institutions to better facilitate access to finance for small-scale producers and for funders to better understand the unique context of community based enterprises emerged as a key concern. Participants emphasised the importance of providing training and education to small-scale producers on how to access funds effectively.

Examples from countries were provided, including Fiji's "super-ministry" approach for integrated governance at the national level including the establishment in 2020, of a National Ocean Policy Steering Committee to support a more strategic, co-ordinated and integrated approach to ocean governance, Peru's NDC that includes actions aimed at preventing climate change impacts such as early warning systems to safeguard fishing activities through the Sistema de Alerta, Prediccion, y Observacion program, and the European Union's compensatory funds for maritime fishing and aquaculture. Additionally, the Blue Food partnership and the Aquatic Blue Food Coalition formed out of the UN Food System Summit were mentioned as exemplary initiatives of effective partnerships.



This graphic recording of the discussions on Fisheries and food security is subjected to change.



## ► PANEL DISCUSSIONS ON BEST PRACTICES

**Update from the Ocean and Coastal Zones Group of the Marrakech Partnership for Global Climate Action:**

**Loreley Picourt**, Focal Point for the Ocean and Coastal Zones, intervened on behalf of the Marrakech Partnership for Global Climate Action (MP-GCA) – the **civil society leg of the Paris Agreement** – to provide feedback on recent progress made. She presented the “**Ocean Breakthrough**” the MP-GCA is currently developing under the leadership of the High-level Climate Champions. The Breakthrough focuses on five key ocean sectors (i.e., marine conservation, ocean-based transport, aquatic food, coastal tourism, ocean renewable energy), which can be understood as **sectoral objectives** to guide and accelerate the delivery of nature-positive, resilient and net-zero actions. The MP-GCA is currently working towards refining this Ocean Breakthrough for COP28. It will include some concrete and quantified targets, as well as enablers to achieve them, such as policy and finance based on a scientific and inclusive approach.

# OCEAN BREAKTHROUGH



**By 2030, delivering sustainable, equitable and effective solutions for a resilient and regenerated ocean**

SCIENCE

INCLUSIVITY

GOVERNANCE

FINANCE



**MARINE CONSERVATION**



**OCEAN-BASED TRANSPORT**



**AQUATIC FOOD**



**COASTAL TOURISM**



**OCEAN RENEWABLE ENERGY**

### MANGROVE BREAKTHROUGH

Invest USD 4 billion to restore and protect 15 million hectares of mangroves.

### SHIPPING BREAKTHROUGH

Zero emission fuels make up 5% of international shipping fuels and 15% of domestic shipping fuels....

Management of aquatic food systems is climate resilient, precautionary, and sustainable, contributing to the improvement in the well-being of 500 million people...

### CLIMATE ACTION IN TOURISM

To halve tourism emissions by 2030 and reach Net Zero as soon as possible before 2050

### OFFSHORE WIND

Install at least 380 GW of offshore wind capacity while establishing targets & enabling measures for net-positive biodiversity outcomes and mobilize \$10 billion in concessional financing for developing countries.



## Topic 1: Coastal ecosystem restoration, including blue carbon

### Panelists:

- **Mr. Muhammad Yusuf**, Director of Coastal and Small Islands Utilisation, Ministry of Marine Affairs and Fisheries, Republic of Indonesia
- **Ms. Muna Al Amoodi**, Director of Climate Change Department, Ministry of Climate Change and Environment, UAE
- **Ms. Susana Sousa Gonçalves**, Director of Civil Protection and the Resilience Hub, Municipality of Matosinhos, Portugal
- **Mr. Chris Lilyblad**, Head of Strategy and Policy Unit, a.i. UNDP, Cabo Verde
- **Mr. Stephen Minas**, Ocean activity co-lead and member of the Technology Executive Committee

**Muhammad Yusuf** presented efforts initiated by the government of Indonesia to protect and restore its mangroves and seagrasses – “the two blue ecosystems contributing to the reduction of GHG emissions”. On mangroves, he mentioned the project “Building with Nature” in the Demak region (Central Java), developed in collaboration with Wetland International and EcoShape, and recognised as one of the 10 UN World Restoration Flagship initiatives announced at CBD-COP15. On seagrasses, he explained that Indonesia is in the process of mapping these ecosystems to better account for them in the National GHG Inventory.

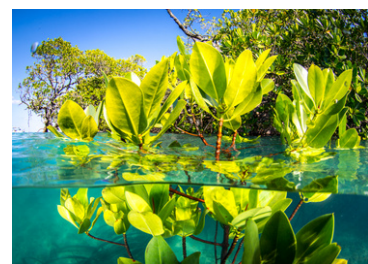
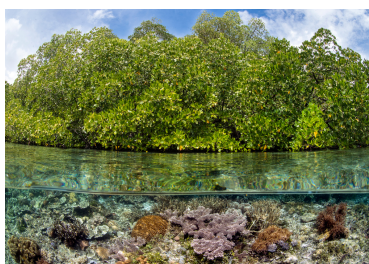
**Muna Al Amoodi** explained that the UAE is currently incorporating blue carbon ecosystems within its national policy strategies and coastal management planning. The UAE is now in the process of updating its NDC, while preparing its first submission of NAP and the submission of Long Term Strategy. The UAE is advancing its efforts on the ground by implementing a flagship project on ‘Nature-based Solutions for climate, biodiversity and society’ bringing multi-stakeholder partnerships to implement an integrated approach to blue carbon coastal ecosystems

**Susana Sousa Gonçalves** showcased the work of the Resilience Hub on Disaster Risk Reduction developed by the municipality of Matosinhos – a coastal town

located in Portugal. The Resilience Hub leads many awareness-raising campaigns, including with the youth. At the same time, the city initiated efforts to sustainably develop its blue economy.

**Chris Lilyblad** explained how Cape Verde found the financial resources necessary to invest in its updated NDC. He presented the Blu-X platform, co-created with Cape Verde Stock Exchange, to provide a catalytic boost to financing the country’s policy objectives through sustainable bonds. The first blue bond was issued in January 2023 with an interest rate of about 4% per year over five years, which for African standards is very low. Entities in Cape Verde are now using the profits to provide loans to small-scale fisheries projects or small-scale entrepreneurs.

**Stephen Minas** presented relevant publications of the Technology Executive Committee aimed at assisting developing countries on aspects of coastal ecosystem protection and restoration. They provide information on actionable policies and relevant technological knowledge, including the financing of technologies. He shared the report “Innovative Approaches for Strengthening Coastal and Ocean Adaptation”, which was drafted with the NWP Ocean Expert Group among other partners. This publication provided practical ideas on how to strengthen recognition of coastal zones as assets, and how to protect them.



## Topic 2: Fisheries and food security

### **Panelists:**

- **Ms. Gwen Sisior**, Ocean Advisor to the PSIDS' Chair, Palau
- **Ms. Ariane Steinsmeier**, Director, Innovation and Scaling, Ocean Risk and Resilience Action Alliance (ORRAA)
- **Mr. German Velasquez**, Director, Division of Mitigation and Adaptation, Green Climate Fund (GCF)
- **Ms. Tiana Carter**, Co-Chair, Facilitative Working Group of the Local Communities and Indigenous Peoples Platform

**Gwen Sisior** described how Palau is protecting fisheries nurseries in habitats like mangroves through moratoriums following local traditions and culture. With limited access to fisheries, aquaculture became an alternative for the island to balance community and environment needs. Palau developed multi-trophic aquaculture with fish, and also clams and sea cucumbers, which can filter seawater and decrease the organic pollution of aquaculture. Palau is also looking at alternatives to fish feed (e.g., coconut feed). Local communities are an intrinsic part of the process and were involved from the outset.

**Ariane Steinsmeier** made four recommendations moving forward: (1) Develop creative ways to use normal financial tools, like insurance, to build resilience; (2) Engage with the private sector to develop new products on protected areas; (3) Monitor startups linked to the blue economy; and (4) Involve local communities when implementing new financial solutions. She shared examples of two ORRAA-led projects. The first one aims to develop microcredit and saving schemes in Tanzania to roll out deep water or seaweed farming technologies, while the second is financed by ORRAA and implemented by Rare that

brings new insurance products (i.e., parametric insurance) to small-scale fishers in the Philippines and Indonesia.

**German Velasquez** stated that, so far, the Green Climate Fund (GCF) has invested \$12 billion into 216 projects, among which 6% (i.e., \$780 million) has been invested in ocean projects (e.g., coastal zone protection, livelihood protection, marine fisheries). The GCF invested \$25 million in technology improvements to strengthen the resilience of local fishing infrastructure facing climate change impacts, and to diversify the local food system. In addition, he stressed the need for a system that funds itself through blended finance (e.g., tax collection).

**Tiana Carter** recalled that Indigenous peoples have a profound understanding of coastal ecosystems, built on multi-generational observation. They adapted their fishing practices to maintain ecological balance to face the severe decline of fish stocks. She shared the example of Hawaii, where the revitalisation of traditional aquaculture systems exemplifies harmonisation of tradition with contemporary methods for both mitigation and adaptation benefits.



## ► WAYS FORWARD

### Guiding questions:

- *What is needed to further centralize the role of the ocean in climate change mitigation and adaptation through UNFCCC processes, including the Global Stocktake?*
- *How can the discussions from day 1 be translated into actionable recommendations that can lead towards more climate action in the ocean?*
- *How can the dialogue be further strengthened in the future to provide more concrete actions and messages for COP*

Building on the breakout discussions, many participants stressed the potential of climate-resilient aquatic food systems to contribute to food security, and described the benefits these food systems can generate, including well-being for communities and ecosystem health. One participant further mentioned the low-carbon footprint of aquatic food production, presenting it as an opportunity to make progress towards net-zero while improving food security.

On the topic of blue carbon ecosystems, several participants called for more research and international cooperation to bridge knowledge gaps, for instance, around carbon accounting. The UN Decade of Ocean Science was referred to as a lever to improve ocean science and inform decision-making.

Participants welcomed the multi-stakeholder approach of the Dialogue, and encouraged more representation from the Global South, in particular from the African continent. Some specifically promoted the inclusion of marginalised groups such as Indigenous peoples and local communities, as well as the adoption of a gender-based approach to climate action.

Several Parties shared examples of good practices in their home country. For instance, the United States presented its national Ocean Climate Action Plan, and the tools it includes to measure future impacts. Costa Rica opted to focus on Nature-based Solutions to en-

sure a blue economy, such as the protection and restoration of mangrove forests. In addition, Palau mentioned the positive outcomes from the Our Ocean Conference that it hosted in April 2022.

Participants reflected on opportunities to mainstream and strengthen ocean-based climate action across the UNFCCC. Many relevant processes and bodies were raised, including but not limited to the Global Goal on Adaptation, the NWP Expert Group on the Ocean and Coastal Zones, the SCF, and the GST. The latter was extensively discussed. Many participants insisted on the need to make sure the ocean and its ecosystems are effectively considered and represented in the outcomes of GST. In that regard, Monaco noted it has placed a request to the GST co-facilitators to consider how to effectively reflect the conclusions of the Dialogue in the outcomes of the GST.

Last but not least, building synergies across UN frameworks, conventions and agreements was also a recurring theme. In this regard, participants mentioned the Sustainable Development Goal 14 “Life Below Water”, the Kunming-Montreal GBF, Ramsar, the High Seas Treaty, as well as ongoing negotiations under the UN Environment Assembly. The next UN Ocean Conference, to be held in June 2025 in Nice under the leadership of Costa Rica and France, was also presented as an opportunity to make substantial progress on ocean action.

## ► CLOSING

The 2023 Ocean and Climate Change Dialogue was closed by Mr. **Harry Vreuls**, SBSTA Chair, and Ms. **Cecilia Kinuthia-Njenga**, Director of Intergovernmental Support of Collective Progress at the UNFCCC Secretariat. They presented the Dialogue as an opportunity to comprehensively integrate the ocean under the UNFCCC processes, and called on all Parties to use the information shared during the dialogue to inform their NDCs, their NAPs and the GST for increased ocean-based climate action.



## ▶ OCEAN-RELATED SIDE EVENTS AT SBSTA 58

**“Ocean-climate progress in the Global Stocktake and synthesizing environmental and social impacts of related solutions”**, where panelists discussed the importance of ocean-climate action and highlighted the lack of ocean integration across UNFCCC processes, including in the GST. This sentiment was echoed throughout the halls of the Ocean and Climate Change Dialogue and was confirmed by the fact that the ocean was under-represented in the concurrent GST technical dialogue at SBSTA58. This side event highlighted the need to holistically integrate ocean-climate action into national approaches and re-emphasised the important role of the Dialogue to include ocean-climate solutions within existing UNFCCC processes. Discussion also called for a comprehensive assessment of the outcomes of ocean-based climate solutions on marine ecosystems and dependent human communities, and provided examples of this kind of assessment, including an IPCC Special Report, IPBES assessment, or joint IPCC-IPBES workshop.

**Ocean-climate progress in the Global Stocktake and synthesizing environmental and social impacts of related solutions.**

12th June | 10:15 - 11:30 CET | Berlin Room, World Conference Centre, Bonn  
Will be streamed online via UNFCCC YouTube: [bit.ly/43kYtff](https://bit.ly/43kYtff)

The Global stocktake is likely to demonstrate a lack of ocean action, highlighting the need to holistically integrate them into national approaches. There is also a clear need for a comprehensive assessment of the environmental and social impacts of ocean-based climate solutions to catalyze their implementation.

Panelists: Cathy Li (UN Youth Advisor, Facilitator), Dr Sarah Cooley (Ocean Conservancy & IPCC Lead Author), Dr Miriah Kelly (Southern Connecticut State University), Sofia Sadogurska (Ecoaction), Ed Goodall (Whale and Dolphin Conservation), Jeremy Raguain (ACSS Fellow 2022 & Columbia University Graduate Student).  
Representing Climate Action Network, Ocean sub-group.

Co-hosts: AirClim, Ocean & Climate Platform, Plymouth Marine Laboratory, Scripps Institution of Oceanography, UC San Diego, Woods Hole Oceanographic Institution, Southern Conservation, ekodija, CAN, WDC.

*Co-hosts: Ocean Conservancy, Southern Connecticut State University, Ecoaction, and Whale and Dolphin Conservation*

MONDAY 12 JUNE | 11.45 AM-1:00 PM (CEST)

**THE GLOBAL STOCKTAKE AND OCEAN-BASED CARBON DIOXIDE REMOVAL: Opportunities, uncertainties, risks and future needs**

BERLIN ROOM, WORLD CONFERENCE CENTER, BONN

AGU, OCEAN & CLIMATE PLATFORM, PML Plymouth Marine Laboratory, SCRIPPS INSTITUTION OF OCEANOGRAPHY, UC San Diego, WOODS HOLE OCEANOGRAPHIC INSTITUTION

*Co-hosts: Plymouth Marine Laboratory, American Geophysical Union, Ocean & Climate Platform, Scripps Institution of Oceanography - University of California San Diego, Woods Hole Oceanographic Institution*

**“Including Coastal Ecosystems in NDCs for Mitigation and Adaptation”**, which explored progress in coastal ecosystem NDC implementation and pathways to enhance ambition in the 2025 NDC cycle, with a panel of government representatives from Panama, Indonesia, and Liberia. The event also shared how advancements like the Global Mangrove Watch Platform, supported by the Global Mangrove Alliance, can be used as a tool to support Parties in the process of developing, implementing or revising their NDCs or NBSAPs, and move towards ratcheting up national and collective ambition on the potential of coastal ecosystems for climate action.

SB 58 OFFICIAL SIDE EVENT

**Including Coastal Ecosystems in NDCs for Mitigation and Adaptation**

TUESDAY, JUNE 13, 1:15-2:30PM (CEST)  
BONN MEETING ROOM  
WORLD CONFERENCE CENTER BONN

CONSERVATION INTERNATIONAL, Pew, The Nature Conservancy, rare

*Co-hosts: Pew Charitable Trust, Rare, The Nature Conservancy, Conservation International, and Wetlands International*