Panel discussions on best practices for adaptation and mitigation
Coastal ecosystem restoration including blue carbon

Ms. Loreley Picourt
Ocean & Coastal Zones Focal Point for the Marrakech Partnership for Global Climate Action (MP-GCA) & Executive Director Ocean & Climate Platform
OCEAN BREAKTHROUGH

By 2030, delivering sustainable, equitable and effective solutions for a resilient and regenerated ocean
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
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.
Panel discussions

Topic 1
Coastal ecosystem restoration including blue carbon

Mr. Muhammad Yusuf
Director of Coastal and Small Islands Utilization, Ministry of Marine Affairs and Fisheries, Republic of Indonesia

Ms. Muna Ahmad Alamoodi
Director of Climate Change Department, Ministry of Climate Change and Environment, United Arab Emirates

Ms. Susana Sousa Gonçalves
Head Director of Civil Protection and the Resilience Hub, Municipality of Matosinhos, Portugal

Dr. Christopher Lilyblad
Development Economist, Head of Strategy & Policy, UNDP Guinea-Bissau & Cabo Verde

Mr. Stephen Minas
Ocean activity co-lead & Technology Executive Committee (TEC) member
Coastal ecosystem restoration including blue carbon

Mr. Muhammad Yusuf
Director of Coastal and Small Islands Utilization
Ministry of Marine Affairs and Fisheries
Republic of Indonesia
MANGROVE FOR CLIMATE ACTIONS

Nature-based Solution

Community Involvement
(including customary community)

- Mangrove seedling & plantation
- Alternative livelihoods, e.g., ecotourism, non-timber products (Batik, snacks, coffee, etc)
- OECM

Protection and Utilization

- Sediment traps & mangrove rehabilitation
- Dense: 3,121,239 (93%)
- Scarce: 54,474 (2%)
- Moderate: 188,363 (5%)
- 3,364,076 Ha
- Ecosystem protection & ecotourism

SEAGRASS FOR CLIMATE ACTIONS

1.844.442 Ha
Indonesia Seagrass Meadows

Source: MMAF, 2023

Seagrass carbon stock sampling points
Coastal ecosystem restoration including blue carbon

Ms. Muna Ahmad Alamoodi
Director of Climate Change Department
Ministry of Climate Change and Environment
United Arab Emirates
Coastal Ecosystem Restoration in the UAE

Bonn Climate Conference - SB58

Ocean and Climate Change Dialogue
June 2023
The United Arab Emirates (UAE) is a federation of seven emirates located in the Arabian Peninsula in Southwest Asia. It’s bordered by Oman and Saudi Arabia and shares maritime borders with Iran and Qatar.

**Introduction**

UAE: Eco-System Competencies Nationally and Globally

- **39th Globally** Environmental Performance Index 2022
- **1st Globally**
  - Marine Protected Areas
  - Ecosystem Services
  - The Scarcity Of Wetland Regression
- **3rd Globally**
  - Index Of Ecosystem Vitality
- **1st Regionally**
  - Index of biological diversity and natural habitats
- **16** Marine protected areas
- **50+** Habitats species @ UAE
- **10th Globally**
  - in the size of natural reserves relative to the population
- **1st Regionally**
  - The UAE has the Largest Congregation Of Dugongs in The World After Australia
- **60** Million mangrove

The country is home to more than 60 million mangroves planted, the UAE’s mangrove forests will sequester nearly 115,000 tons of CO2 per year.
The UAE's capacity to carry out Nature-Based Solutions (NbS) is bolstered by various key enablers:

1. Ecological Diversity
2. Policy & Regulatory Framework
3. Technological Advancements & Innovation
4. Research & Development (R&D)
5. Public-Private Partnerships (PPPs)
6. Public Awareness & Engagement
Mangroves as a climate solution

01
Their carbon storage potential is 3 to 4 times higher than that of tropical forests.

02
They provide a habitat for up to 80% of fish populations.

03
Mangrove systems provide shelter to a range of wildlife species including birds, deer and honey bees.

04
They prevent erosion and stabilize shorelines.
Blue Carbon and co-benefits


4. Assessment of one oceanic blue carbon mechanism in the UAE: Biomass Carbon Audit Test case with a focus on Abu Dhabi Emirate etc.
Blue Carbon and co-benefits: A Multi-habitat approach

A holistic approach to evaluate carbon and co-benefits for multiple habitats (mangroves, seagrass, saltmarshes, mudflats) taking a ‘seascape approach’

BLUE CARBON

• **Cumulative carbon storage**: mangroves account for the largest carbon storage: 40% in the study areas (primarily attributed to living biomass such as roots, branches, stems, etc.)

• **Carbon stored/ha in the soil**: similar carbon stored/ha by mangroves, saltmarshes, mudflats and microbial mats in the intertidal areas

BIODIVERSITY & NATURAL CAPITAL

• **Coastal lagoons are important areas for biodiversity**: critical habitats for sharks, marine turtles, fish nurseries, migratory birds (eg. Important Bird Areas)

• **Contributing to UAE Natural Capital Initiative** and supporting multi-lateral partnership to unlock blended finance for nature and climate
Thank you!

www.moccae.gov.ae

@MCCAEUAU
Coastal ecosystem restoration including blue carbon

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Head Director of Civil Protection and the Resilience Hub
Municipality of Matosinhos
Portugal
Coastal ecosystem restoration including blue carbon

Dr. Christopher Lilyblad
Development Economist
Head of Strategy & Policy
UNDP Guinea-Bissau & Cabo Verde
Integrating Blue Finance in SDG Acceleration: The Blu-X Platform in Cabo Verde
Cabo Verde – Public Debt (% of GDP)

Figure 1: Evolution of Public Debt Relative to GDP in the Context of Exogenous Financial and Economic Crises

Integration: Vertical and Horizontal

- Global
- Regional
- Country
- Local

Blue Economy

- Innovation & Digital
- Green and Circular Economy
- Human Capital
- Sustainable Tourism & Culture
World’s 1st dedicated platform for Sustainable Blue Finance
Obrigações Azuis iib

Subscreva a iib Marine and Ocean-based Blue Bond Série D - 4%
2023 | 2028

23 de Janeiro a 28 de Fevereiro / Liquidação Física: 01 de Março de 2023

Invista connosco, invista com o iib!

Taxa de juro 4% | prazo 5 anos.
Need more details?

Decentralizing Development Finance through Capital Markets Integration
The Emergence of Cabo Verde’s Blue Sustainable Finance Exchange

by Christopher Marc Lillyblad

UNDP Global Policy Network Brief
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Coastal ecosystem restoration including blue carbon

Mr. Stephen Minas
Ocean activity co-lead & Technology Executive Committee (TEC) member
Ocean and climate technology

UNFCCC Technology Mechanism

Climate and Ocean Dialogue 2023
13-14 June 2023 | SB 58
Technology Mechanism’s work on oceans at a glance

Policy

Policy work of the TEC and joint work of the TEC and CTCN

Implementation

Technical assistance provided by the CTCN

Solomon Islands
Establishment of an Integrated Coastal Zone Management Plan to protect the mangroves through Ecosystem based adaptation solutions

Belize
Groundwater monitoring for mapping aquifers in Belize as a tool for climate change adaptation planning

Uruguay
Development of technology tools for the assessment of impacts, vulnerability and adaptation to climate change in the coastal zones

Future plans

Joint work programme of the Technology Mechanism 2023-2027

TEC rolling workplan on transformative and innovative solutions:
Nature and ecosystems | Innovative Ocean Climate Solutions
Climate action, ocean and technology

Insight from NDCs and UNFCCC instruments

There is an increasing number of Parties (40 per cent) targeting ocean-based climate action. Some Parties (26 per cent) include an ocean-based climate target, policy or measure in their updated NDC.

- UNFCCC, 2022 -

The ocean and coastal zones are addressed in over 70% of new or revised NAPs.

- UNFCCC, 2022 -

The ocean and coastal zones are addressed in over 70% of new or revised NAPs.

- UNFCCC, 2022 -

There is a growing focus on digital technologies for improving climate monitoring, data and information systems, including for forecasting and early warning systems in oceans and coastal zones.

- UNFCCC, 2022 –

Insight from the policy work of TEC

Countries are increasingly including technology measures in their NDCs for the implementation of national blue economy initiatives, marine spatial plans, fisheries management and aquaculture development to enhance climate mitigation and adaptations.

- TEC, IUCN, NWP, 2022-

To support the longer-term costs of adaptation actions beyond initial investments and operating costs, financial actors could consider a range of financing instruments beyond grants, including equity, loans and private sector investments in the blue economy.

- TEC, IUCN, NWP, 2022-

Most significant roadblock preventing widespread implementation and mainstreaming of these technologies, especially in the most vulnerable countries SIDS and LDCs, is financing gaps.

- TEC, IUCN, NWP, 2022-
Strengthening recognition of coastal ecosystems as assets & improving processes to protect & restore them

The value of mangrove ecosystems

$65 billion+ p.a. in flood protection benefits alone

What Parties can do

• Ecosystem-based adaptation (EbA) and Ecosystem-based disaster risk reduction (Eco-DRR) with economic co-benefits
• Green-green infrastructure (e.g. ‘living shorelines’)
• Combine blue carbon restoration with sustainable aquaculture
• Public finance to produce data, metrics & valuations to build case for integrated adaptation approaches
• Blended finance for crowding in investment
• Integrated coastal zone management (ICZM)
Best practices from CTCN technical assistance

Solomon Islands - establishment of an Integrated Coastal Zone Management (ICZM) Plan to protect the mangroves through Ecosystem based adaptation solutions

**Hardware**
- Identification of suggested technologies for mangrove management through EbA

**Software**
- Promotion of sustainable economic development of mangroves through EbA to secure livelihoods of coastal communities
- Development of capacity in research and education and enhancement of stakeholder awareness and participation in sustainable mangroves management

**Orgware**
- Promotion of integrated planning and coordination of the protection of mangroves across the various sectors
- Establishment of effective institutional and legal frameworks for implementation of the ICZM plan

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Proportion of weekly food & cash income provided to SI coastal communities by mangroves (CGIAR)
Panel discussions

Topic 2
Fisheries and food security

Ms. Gwen Sisior
Ocean Advisor to the Chair of the Pacific Small Island Developing States (PSIDS), Palau

Ms. Ariane Steinsmeier
Director of 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 of the Facilitative Working Group (FWG) of the Local Communities and Indigenous Peoples Platform (LCIPP)
Panel discussions

Ms. Gwen Sisior
Ocean Advisor to the Chair of the Pacific Small Island Developing States (PSIDS) Palau
Panel discussions

Ms. Ariane Steinsmeier
Director of Innovation and Scaling
Ocean Risk and Resilience Action Alliance (ORRAA)
$500m investment into coastal and marine natural capital

$30m invested into projects

250m climate vulnerable people more resilient by 2030
ORRAA priority pathways

**Financial Innovation**

Pioneering innovative and scalable finance and insurance products to protect and regenerate valuable coastal and marine natural assets while delivering a return on investment.

**Science and Research**

Accelerating research on ocean risk and resilience and improving modelling that informs financial innovation and policy action to reduce the impacts of climate and ocean change.

**Policy and Governance**

Informing, advancing and driving public and private policy commitments and action that value nature, build coastal resilience, reduce ocean risk and accelerate the delivery of the SDGs.
Example Projects

AquaFarms Organization (AFO)
Establishing a Voluntary Carbon Market to Restore Mangroves and Support Local Communities
TANZANIA

Commonwealth Secretariat & Stimson Center
Identifying Climate-Smart Solutions in SIDS and Coastal Cities using the Climate and Ocean Risk Vulnerability Index (CORVI)
BARBADOS, SRI LANKA, KIRIBATI

Conservation International
Climate Smart Shrimp Initiative
PHILIPPINES

Mar Fund and WTW
Financing Reef Resilience to Extreme Climate Events
BELIZE, GUATEMALA, HONDURAS, and MEXICO

Marine Change
Development Parametric Climate Risk Insurance for Small-Scale Tuna Fishers
INDONESIA

Coastal Risk Index
GLOBAL

Rare
Strengthening the Financial Resilience of Small-Scale Fishers
PHILIPPINES AND INDONESIA

Rare & WTW
Weather Index-Based Parametric Insurance for Small-Scale Fishers
PHILIPPINES

RePurpose Global
Enabling Plastic Credit Finance to Scale Waste management Activities
INDIA

WWF
Coastal Community Livelihood Incubator for the South-West Indian Ocean
KENYA, MADAGASCAR, MOZAMBIQUE, SOUTH AFRICA, TANZANIA

Stockholm Resilience Centre
Quantitative Assessment of Ocean Risk and Vulnerability in SIDS and LDCs
GLOBAL
Developing Micro Credit and Savings Schemes to Upgrade to Tubular Nets for Seaweed Farming

**PROJECT LEAD**
Aqua-Farms Organization (AFO) & Sea PoWer

**FINANCIAL INNOVATION**
Micro credits

**FINANCIAL SUPPORT**
Received mentoring, training and funds from ORRAA's Ocean Risk Innovation Challenge (ORIC) which was financially supported by the UK's Blue Planet Fund and Swiss Re Foundation.

**LOCATION**
Tanzania

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**PROJECT SUMMARY**

- This project focuses on rolling out deep-water tubular net seaweed farming technology through microcredit and saving schemes. This helps farmers purchase and maintain the equipment needed for deep water farming.

- Women are also trained to produce seaweed with the tubular nets, and produce seaweed derived soaps, shampoo, lotions, juice, jam, salads, cakes and noodles. Capacity building such as improving financial literacy are also taking place.

- With ORRAA's support, the project is aiming to scale along Tanzania's coastline.
Strengthening the Financial Resilience of Small-Scale Fishers

PROJECT LEAD
Rare

Providing small-scale fishers in the Philippines and Indonesia access to insurance products – protecting their livelihoods and helping them, their families, and coastal communities recover from shocks and climate-related events.

Additional Projects on our website
oceanriskalliance.org/projects

Open Call For Proposals
Deadline July 2nd, 2023
Thank you

Ariane Steinsmeier
Director, Innovation & Scaling
Ocean Risk and Resilience Action Alliance

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To learn more about ORRAA, please visit our website: oceanriskalliance.org

or contact us directly at: secretariat@oceanriskalliance.org
Panel discussions

Mr. German Velasquez
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Panel discussions

Ms. Tiana Carter

Co-Chair of the Facilitative Working Group (FWG) of the Local Communities and Indigenous Peoples Platform (LCIPP)
Q&A