

A vibrant underwater scene of a coral reef with various types of coral in shades of white, yellow, and orange against a clear blue water background.

Panel discussions on best practices for adaptation and mitigation



Ms. Loreley Picourt

Ocean & Coastal Zones Focal Point for
the Marrakech Partnership for Global
Climate Action (MP-GCA) &
Executive Director
Ocean & Climate Platform

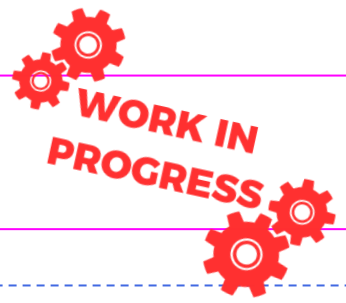
OCEAN BREAKTHROUGH



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



OCEAN BREAKTHROUGH



SCIENCE



MARINE CONSERVATION

MANGROVE BREAKTHROUGH

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

INCLUSIVITY



OCEAN-BASED TRANSPORT

SHIPPING BREAKTHROUGH

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

GOVERNANCE



AQUATIC FOOD

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

FINANCE



OCEAN RENEWABLE ENERGY

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

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



Mr. Muhammad Yusuf

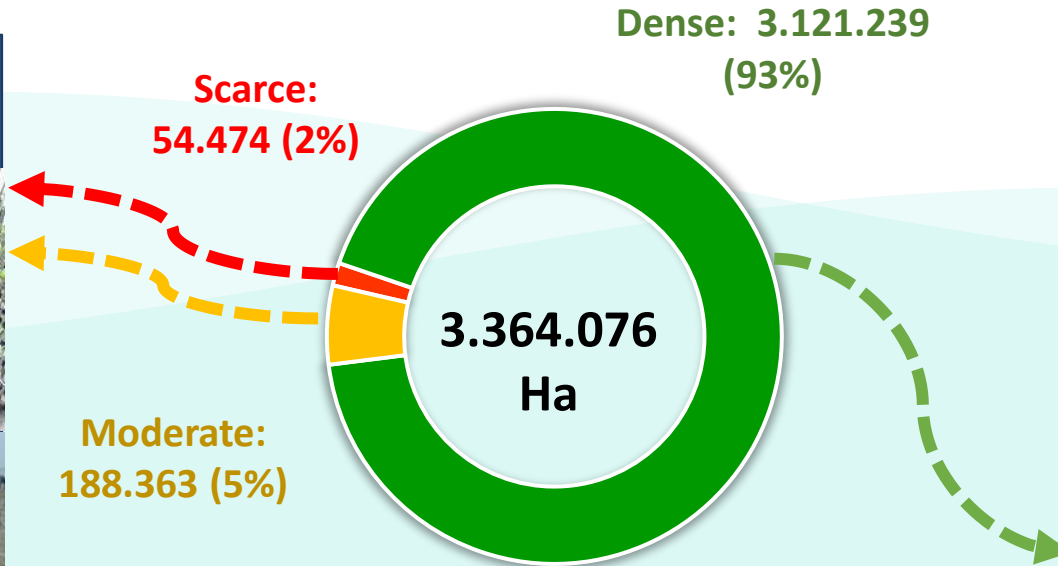
Director of Coastal and
Small Islands Utilization
Ministry of Marine Affairs and Fisheries
Republic of Indonesia

MANGROVE FOR CLIMATE ACTIONS

Nature-based Solution



Sediment traps & mangrove rehabilitation



Community Involvement (including customary community)

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

Protection and Utilization



Ecosystem protection & ecotourism

SEAGRASS FOR CLIMATE ACTIONS



1.844.442 Ha

Indonesia Seagrass Meadows





Ms. Muna Ahmad Alamoodi

Director of Climate Change Department

**Ministry of Climate Change and
Environment**

United Arab Emirates



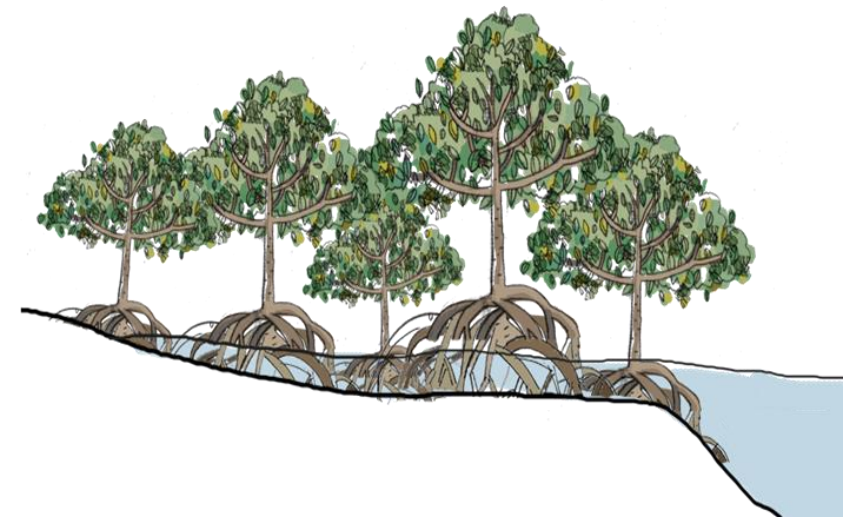
UNITED ARAB EMIRATES
MINISTRY OF CLIMATE CHANGE
& ENVIRONMENT

Coastal Ecosystem Restoration in the UAE

Bonn Climate Conference - SB58

Ocean and Climate Change Dialogue

June 2023



Introduction

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.



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

16
Marine protected areas

3rd Globally **1st** Regionally
Index Of Ecosystem Vitality

1st Regionally
Index of biological diversity and natural habitats

50+
Habitats species @ UAE

UAE is

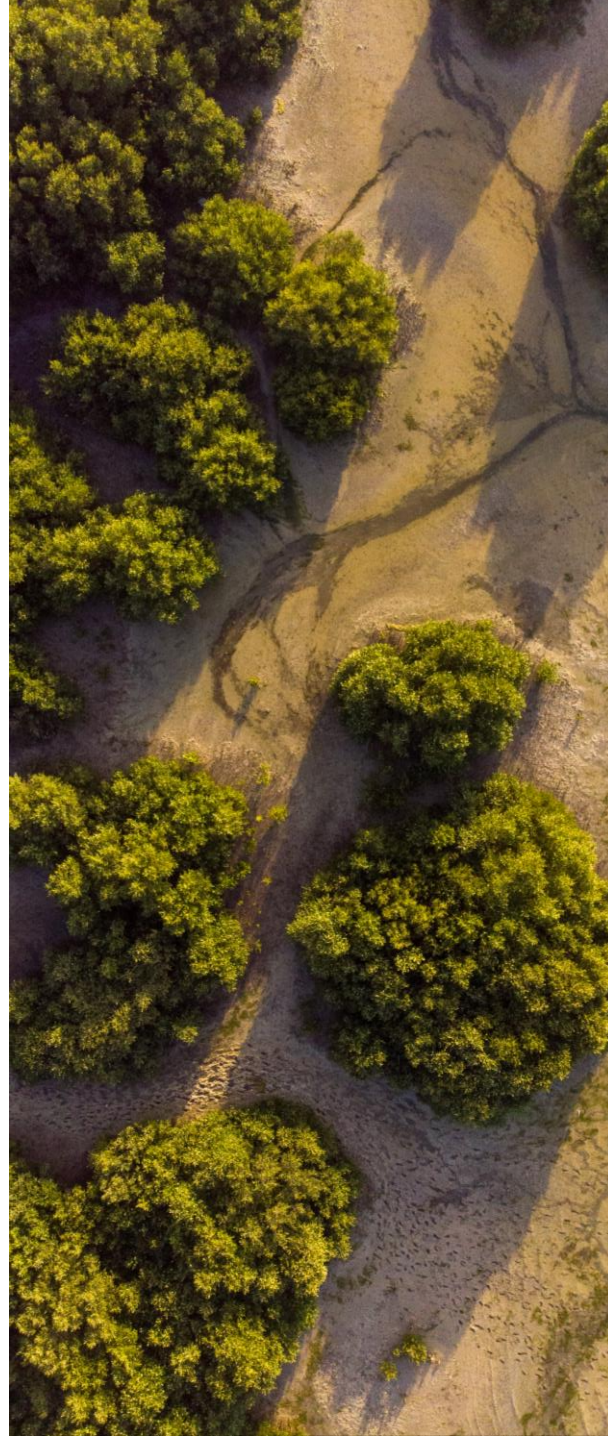
10th Globally **1st** Regionally
in the size of natural reserves relative to the population

The UAE has the **Largest Congregation Of Dugongs** in The World After Australia

The country is home to more than

60 Million mangrove

With the additional 100 million mangroves planted, the UAE's mangrove forests will sequester nearly **115,000 tons of CO2 per year**



National Biodiversity Strategy enablers

The UAE's capacity to carry out Nature-Based Solutions (NbS) is bolstered by various key enablers:

01

Ecological Diversity

02

Policy & Regulatory Framework

03

Technological Advancements & Innovation

04

Research & Development (R&D)

05

Public-Private Partnerships (PPPs)

06

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

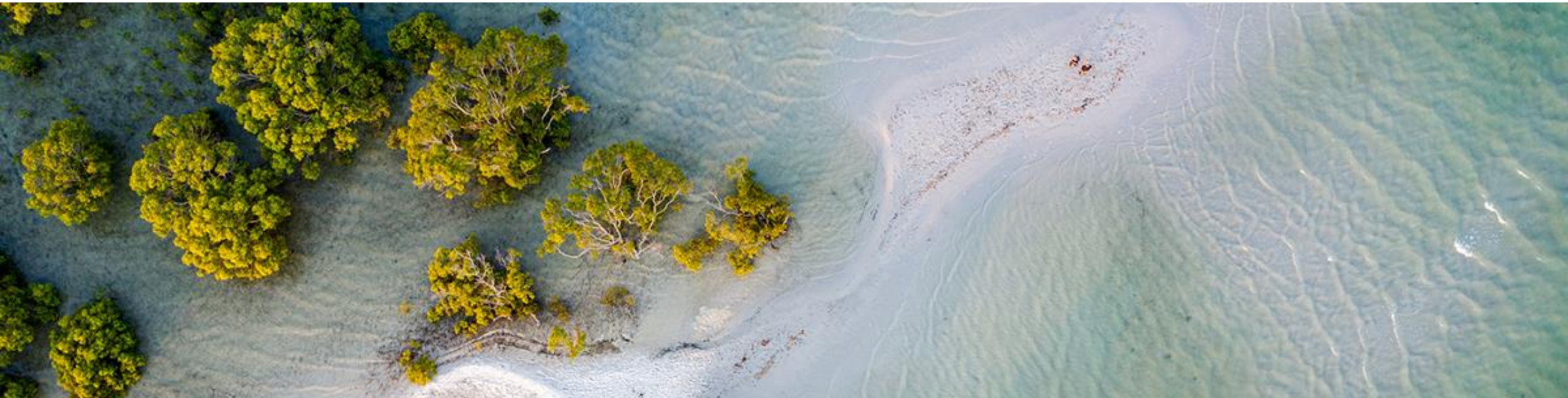
They provide a habitat for up to 80% of fish populations.

03

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

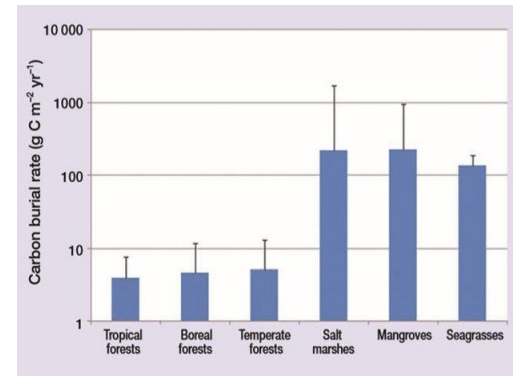
04

They prevent erosion and stabilize shorelines.



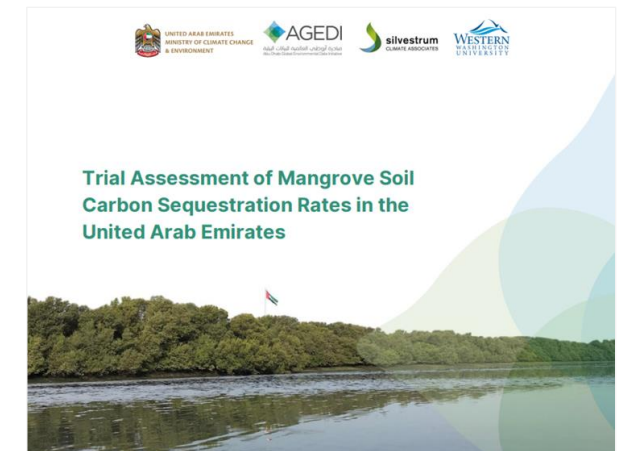
Blue Carbon and co-benefits

1. The Abu Dhabi Blue Carbon Demonstration Project (2013-2014) covered Abu Dhabi Emirate
2. National Blue Carbon Project (2014-2015), covered the Northern and Eastern Emirates
3. Mangrove Soil Carbon Sequestration of the United Arab Emirates: Trial Application (2019-2020) covered Abu Dhabi, RAK, Sharjah, and Dubai
4. Assessment of one oceanic blue carbon mechanism in the UAE: Biomass Carbon Audit Test case with a focus on Abu Dhabi Emirate etc.



Comparison of carbon burial rate per year for terrestrial and coastal habitats.

Source: Mcleod et al. (2011)



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'

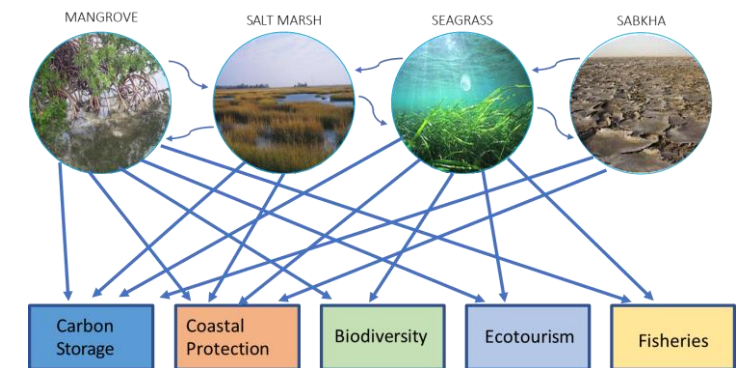
BLUE CARBON

- **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



@MOCCAUEUAU



Ms. Susana Sousa Gonçalves

Head Director of Civil Protection and the
Resilience Hub

Municipality of Matosinhos
Portugal



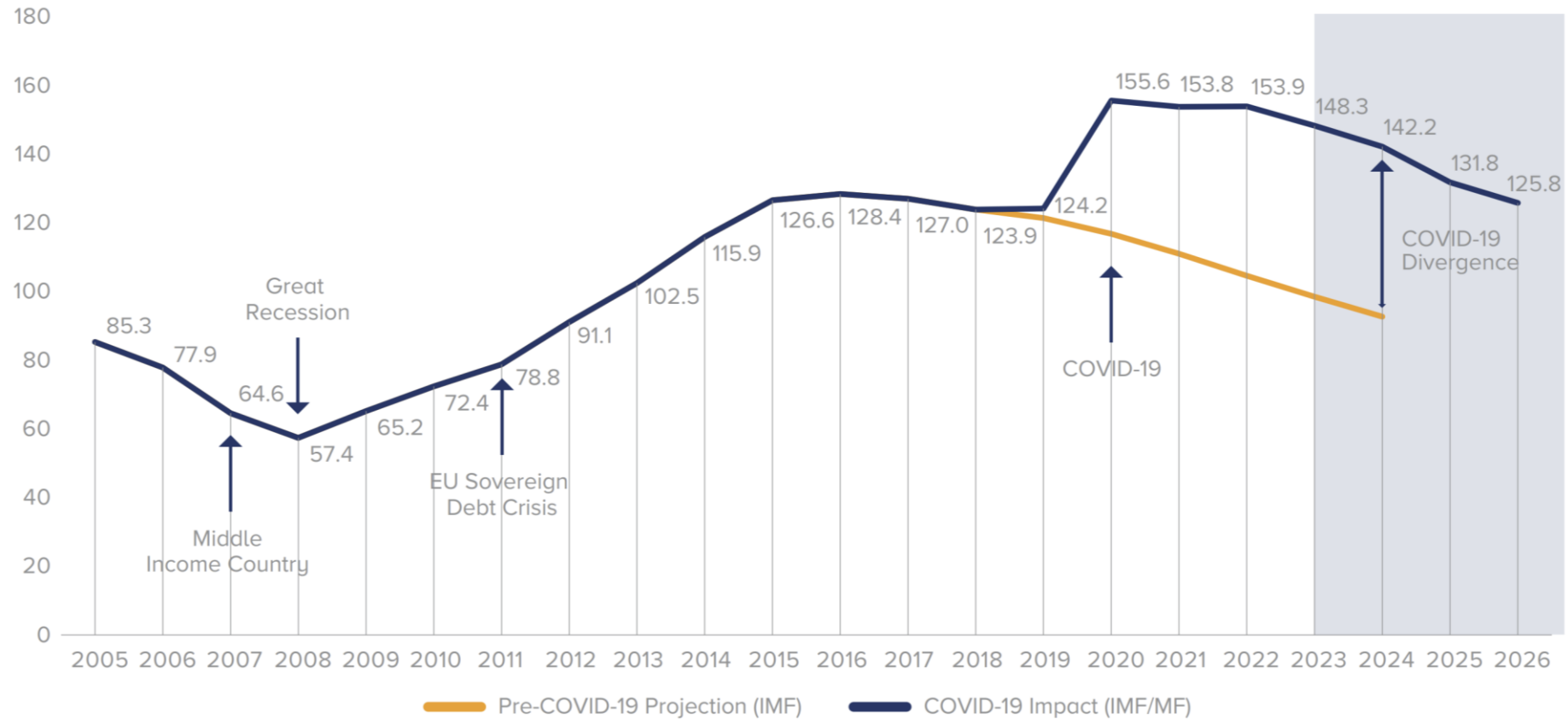
Dr. Christopher Lilyblad
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UNDP Guinea-Bissau & Cabo Verde



*Integrating Blue Finance in SDG Acceleration:
The Blu-X Platform in Cabo Verde*

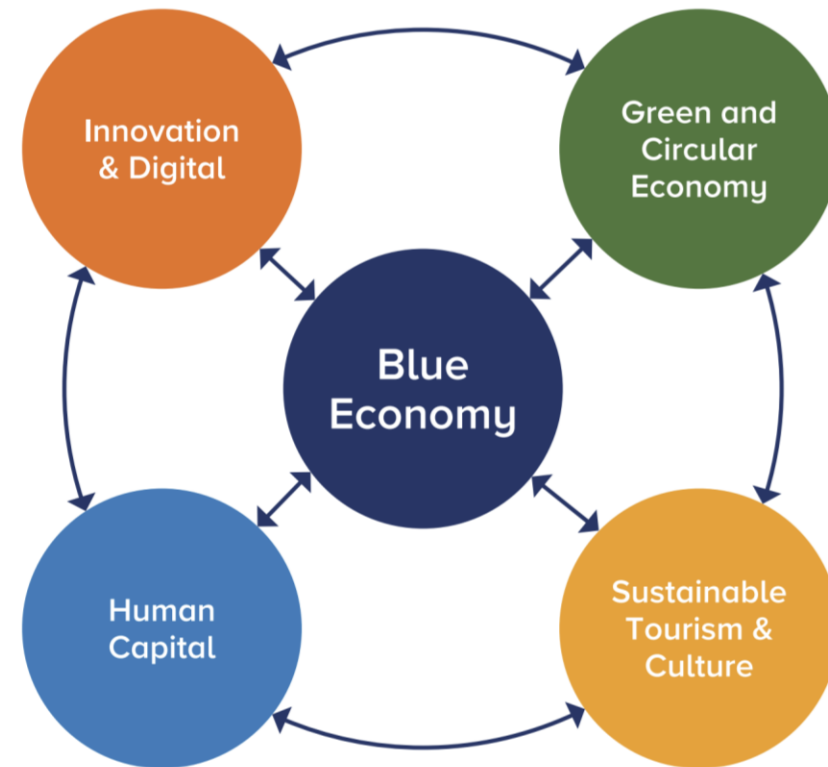
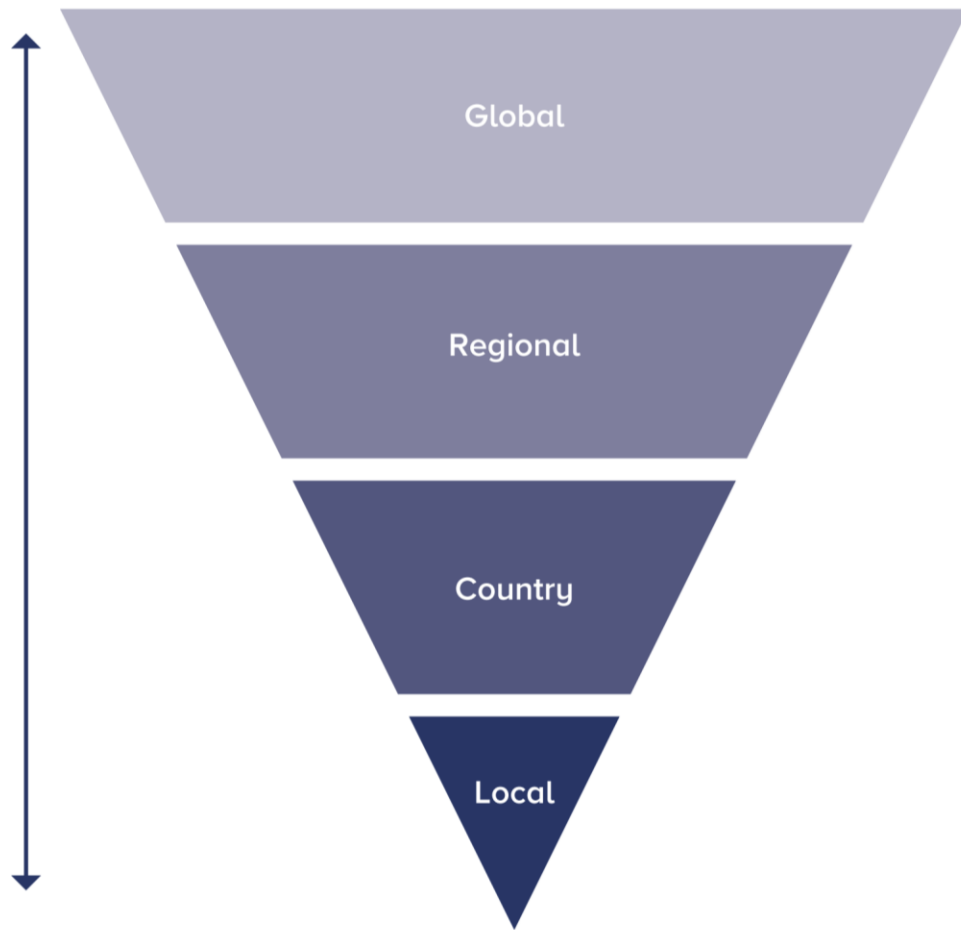
Cabo Verde – Public Debt (% of GDP)

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

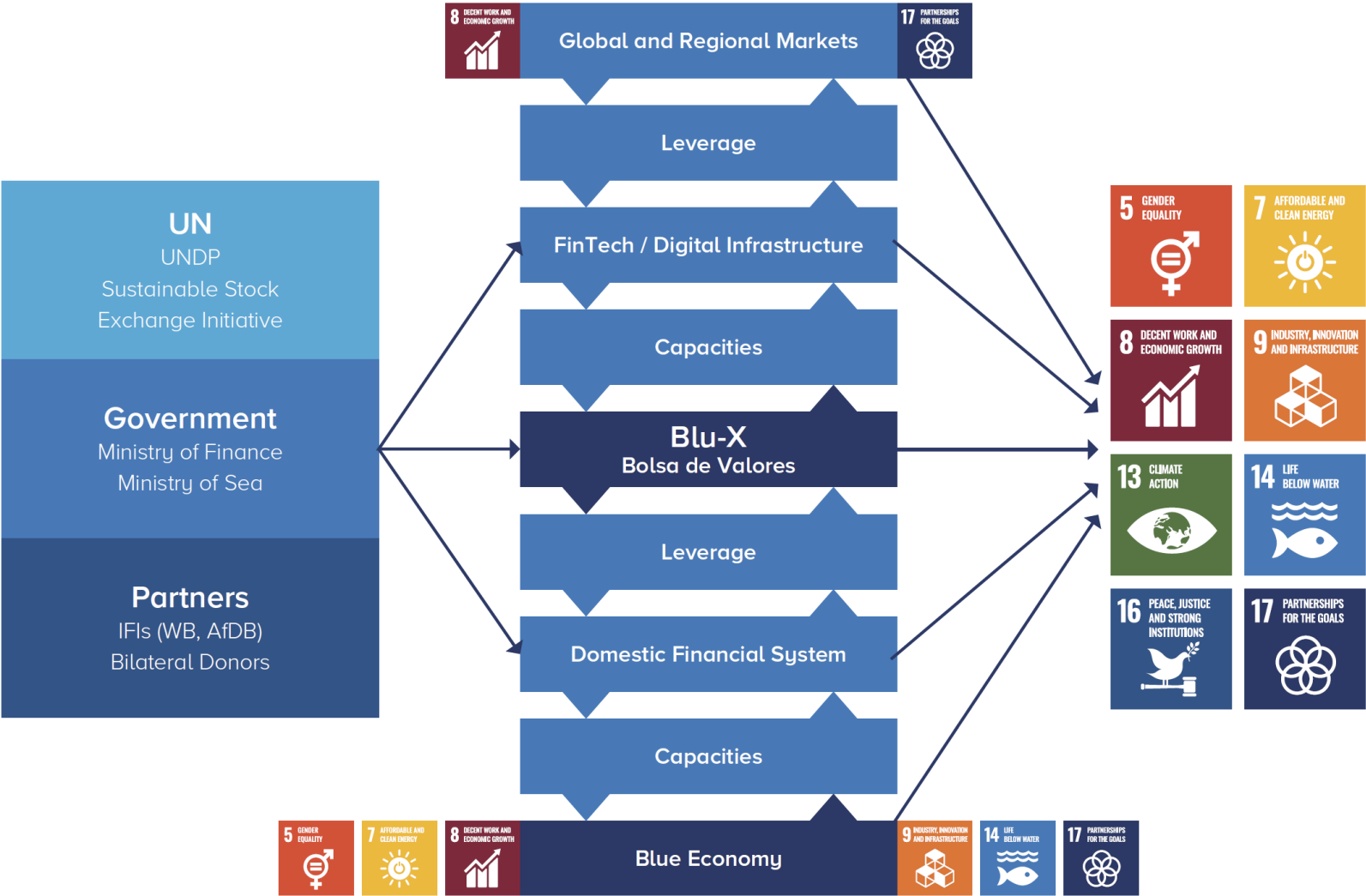


Source: Author, based on compilation of data from the IMF debt sustainability analysis 2019 for pre-COVID projections and the Joint World Bank-IMF debt sustainability analysis 2020 for post-COVID projections.

Integration: Vertical and Horizontal



World's 1st dedicated platform for Sustainable Blue Finance



First Blue Bond



iib

Your Bank, Your Future
O seu Banco, O seu Futuro



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 Lilyblad'



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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



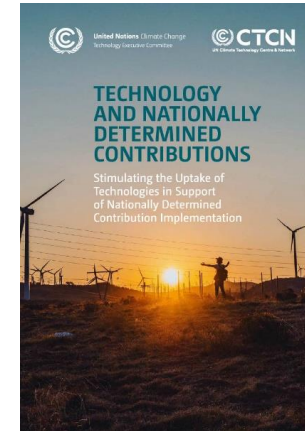
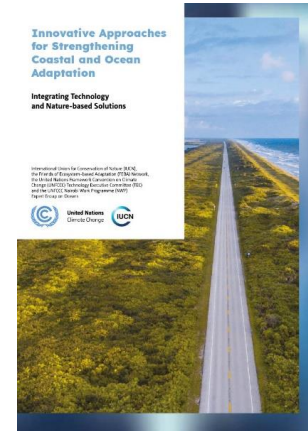
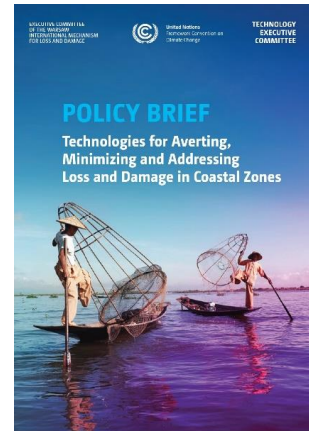
Stephen Minas

Ocean co-lead, Technology Executive Committee (TEC)

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 -

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-

Blue carbon management could reduce emissions and/or increase **carbon uptake and storage**.
- IPCC, 2019 -

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 -

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-



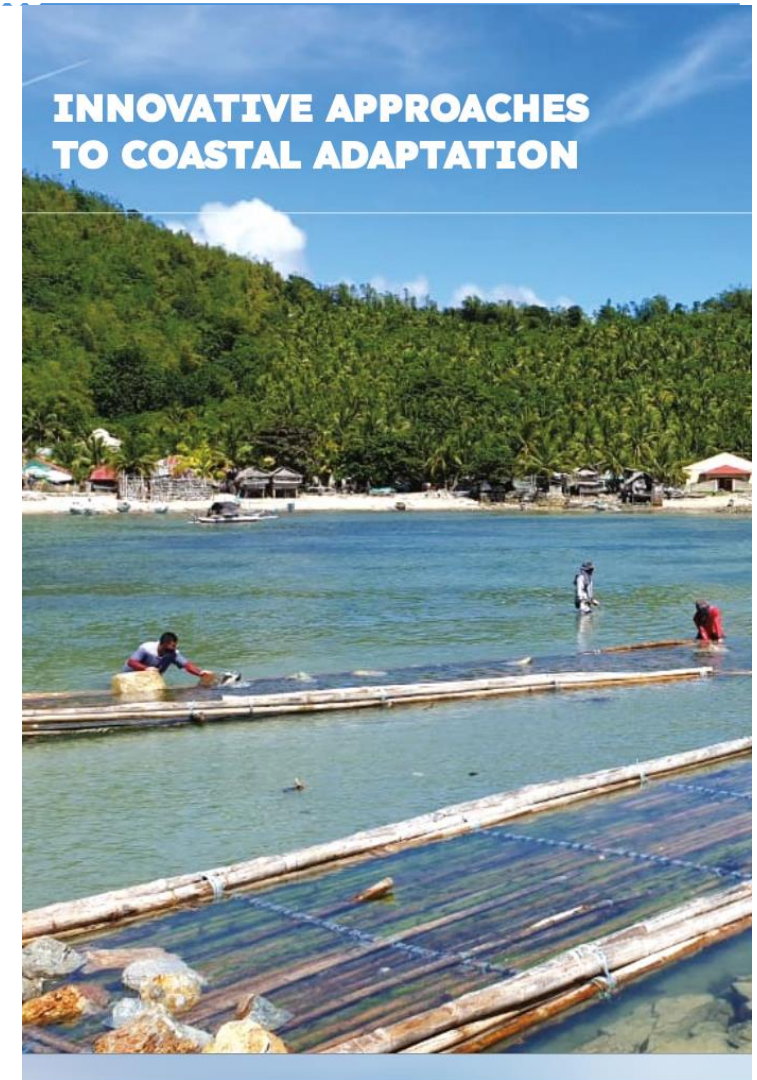
Strengthening recognition of coastal ecosystems as assets & improving processes to protect & restore them

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)



E. Abian



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

1/4

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





Q & A





Topic 2

Fisheries and food security

Ms. Gwen Sisor

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)

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Ms. Tiana Carter

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



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orraa

Ocean Risk and Resilience
Action Alliance

14th of June 2023
Bonn, Germany, UNFCCC

Ocean & Climate Dialogue 2023
Topic 2: Fisheries and Food Security





\$500m

investment into coastal
and marine natural capital



250m

climate vulnerable people
more resilient by 2030

\$30m

invested into projects





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.

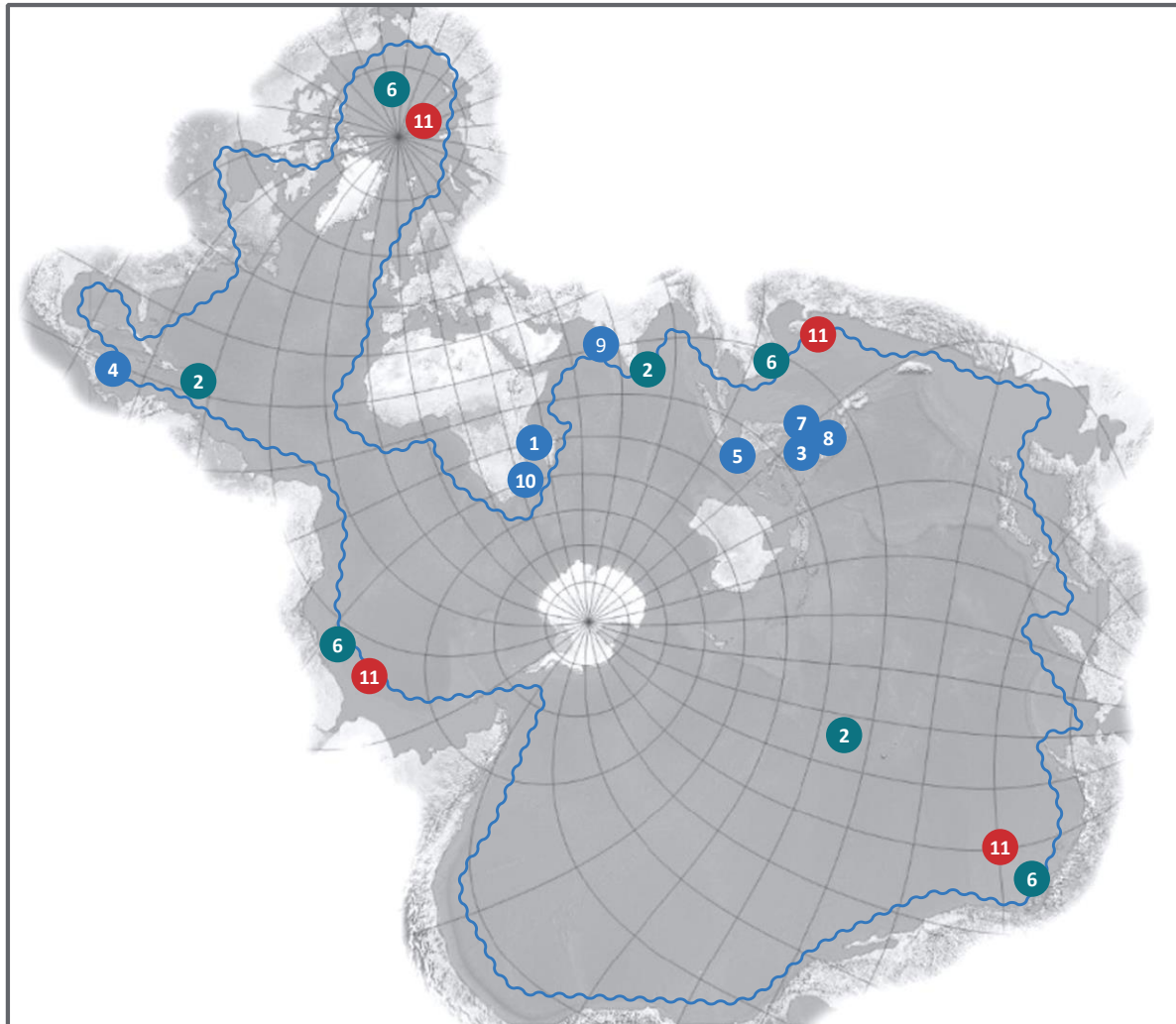


Policy and Governance

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



- 1** **AquaFarms Organization (AFO)**
 Establishing a Voluntary Carbon Market to Restore Mangroves and Support Local Communities
 TANZANIA
- 2** **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
- 3** **Conservation International**
 Climate Smart Shrimp Initiative
 PHILIPPINES
- 4** **Mar Fund and WTW**
 Financing Reef Resilience to Extreme Climate Events
 BELIZE, GUATEMALA, HONDURAS, and MEXICO
- 5** **Marine Change**
 Development Parametric Climate Risk Insurance for Small-Scale Tuna Fishers
 INDONESIA
- 6** **Coastal Risk Index**
 GLOBAL
- 7** **Rare**
 Strengthening the Financial Resilience of Small-Scale Fishers
 PHILIPPINES AND INDONESIA
- 8** **Rare & WTW**
 Weather Index-Based Parametric Insurance for Small-Scale Fishers
 PHILIPPINES
- 9** **RePurpose Global**
 Enabling Plastic Credit Finance to Scale Waste management Activities
 INDIA
- 10** **WWF**
 Coastal Community Livelihood Incubator for the South-West Indian Ocean
 KENYA, MADAGASCAR, MOZAMBIQUE, SOUTH AFRICA, TANZANIA
- 11** **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



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



Residents of the Bindoy municipality (Philippines) pose for a photo after signing up for insurance © Rare

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





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Q & A

