

IOC-UNESCO and the Ocean Decade: Engaging with an Intergovernmental Platform for Global Ocean Cooperation

Mingmei XUE | September 3, 2026

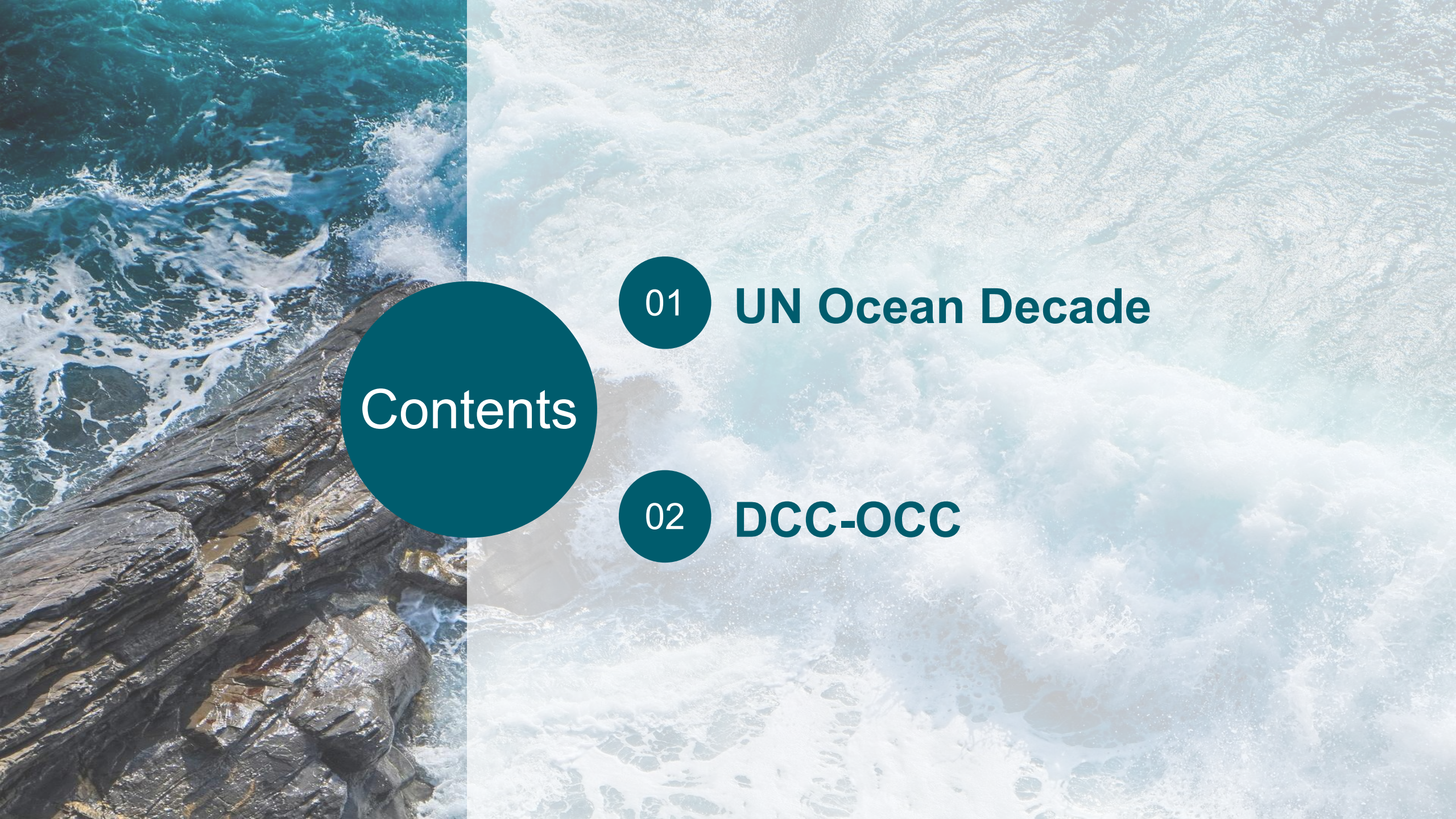


DCC-OCC
联合国海洋十年海洋与气候协作中心



**2021
2030**

United Nations Decade
of Ocean Science
for Sustainable Development



Contents

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UN Ocean Decade

02

DCC-OCC

An aerial photograph of a coastline where waves are crashing over dark, layered rocks. The water is a deep blue-green, and the foam is white. The image is split horizontally by a semi-transparent white band.

UN Ocean Decade



United Nations
Educational, Scientific and
Cultural Organization



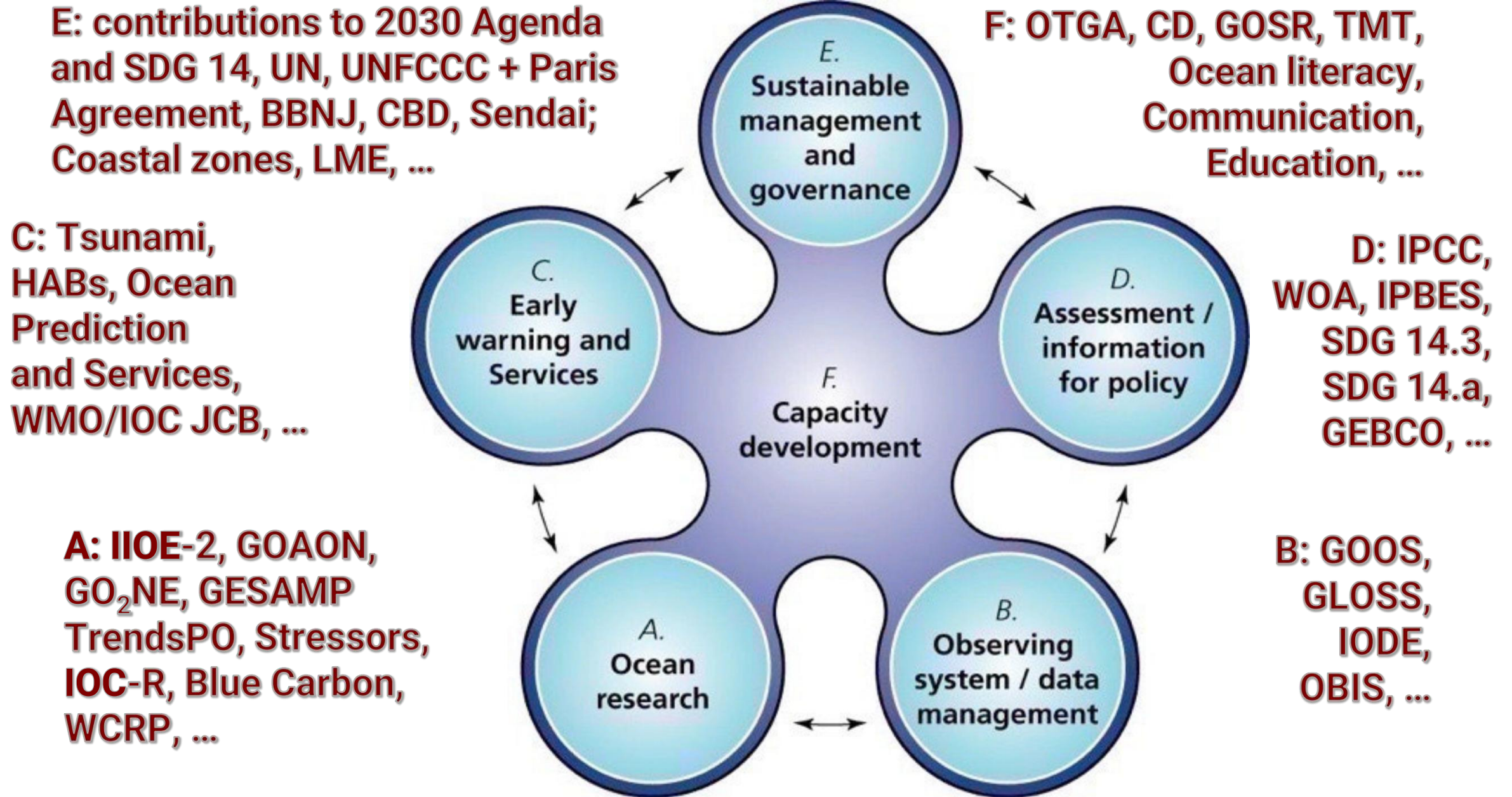
Intergovernmental
Oceanographic
Commission

The Intergovernmental Oceanographic Commission (IOC) of UNESCO, 1960, 153 Member States

- Intergovernmental body of the UN system for **ocean science, observations, data exchange, services, capacity development, and science-to-governance work**



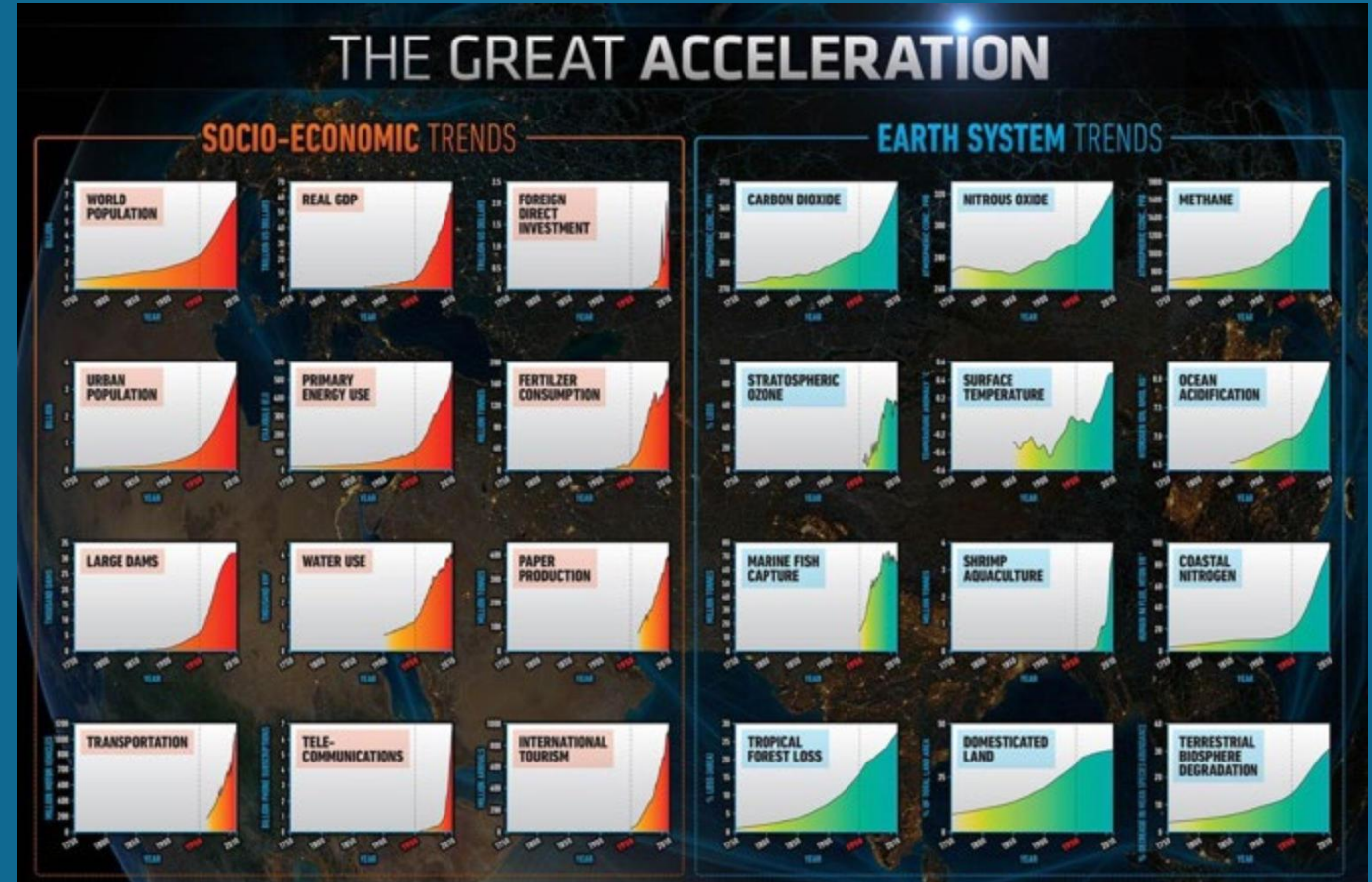
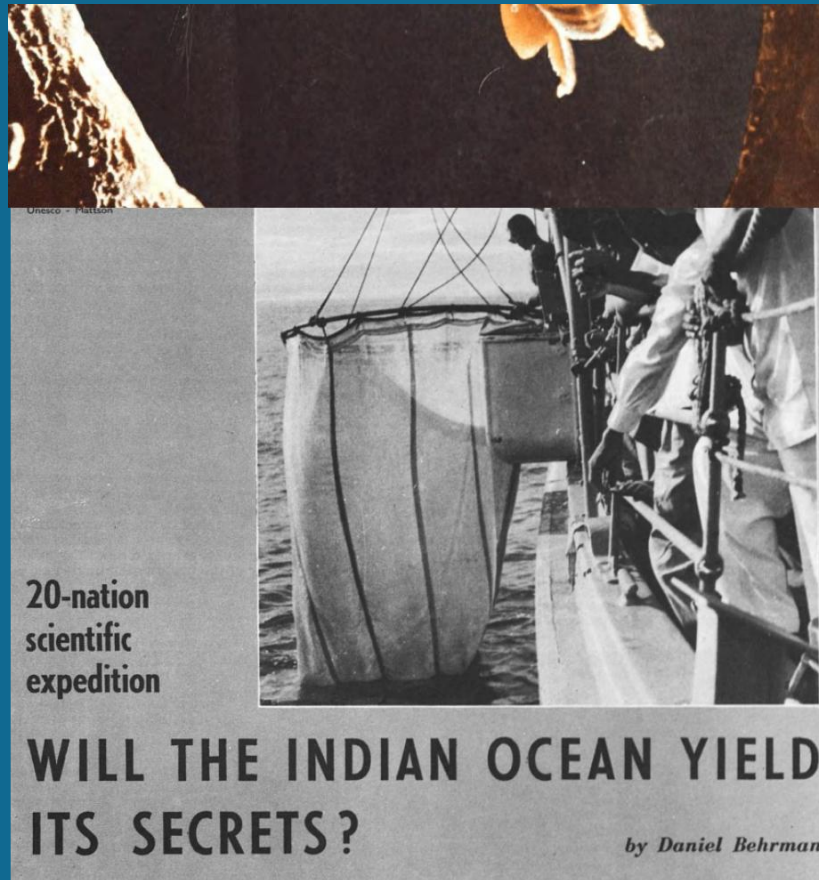
IOC portfolio



1960s

IOC Evolving Agenda

Now



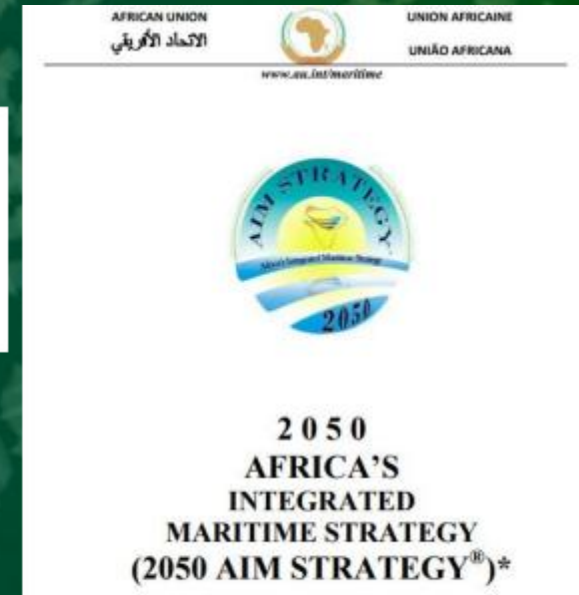
Intergovernmental UN platform for
dialogue and cooperation
in ocean science



Intergovernmental UN Platform to
enable ocean science for
addressing **existential** issues

Why an Ocean Decade linking science & sustainable development?

“Humanity is running out of time to manage the ocean sustainably ...”
2016 World Ocean Assessment



Towards the Ocean Decade: 2017 - 2021

2016-2017

2020



The Ocean We Need for the Future We Want

Proposal for an International Decade of Ocean Science for Sustainable Development (2021-2030)



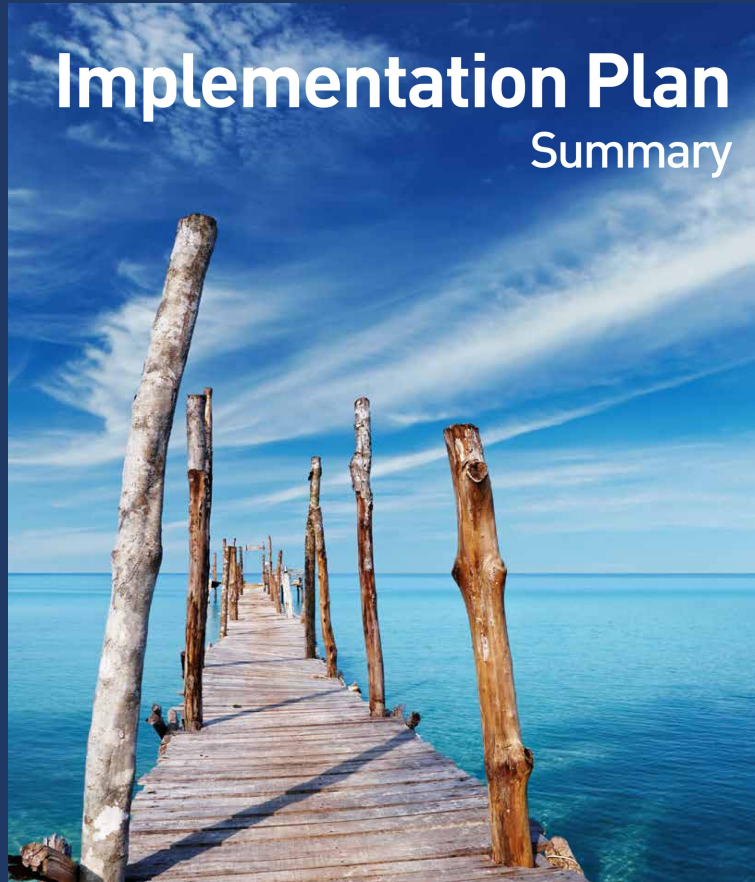
2018-2019

The Science We Need for the Ocean We Want

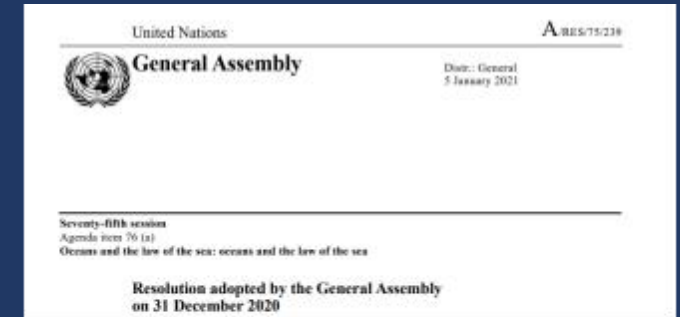
The United Nations Decade of Ocean Science for Sustainable Development (2021-2030)



Implementation Plan Summary



The United Nations
Decade of Ocean Science
for Sustainable Development
(2021-2030)



304. Welcomes the steps taken by the Intergovernmental Oceanographic Commission to prepare the implementation plan for the United Nations Decade of Ocean Science for Sustainable Development (2021-2030) in consultation with Member States, specialized agencies, funds, programmes and bodies of the United Nations, as well as other intergovernmental organizations, non-governmental organizations and relevant stakeholders, and takes note with appreciation of that plan;

305. Requests that the Intergovernmental Oceanographic Commission regularly consult with, and report to, Member States on the United Nations Decade of Ocean Science for Sustainable Development and its implementation;

306. Invites the Secretary-General to inform the General Assembly on the implementation of the United Nations Decade of Ocean Science for Sustainable Development through his report on oceans and the law of the sea, on the basis of information to be provided by the Intergovernmental Oceanographic Commission;

01.01.21
THE OCEAN DECADE HAS
STARTED !

10 YEARS TO DELIVER THE
SCIENCE WE NEED FOR
THE OCEAN WE WANT



Vision & Mission

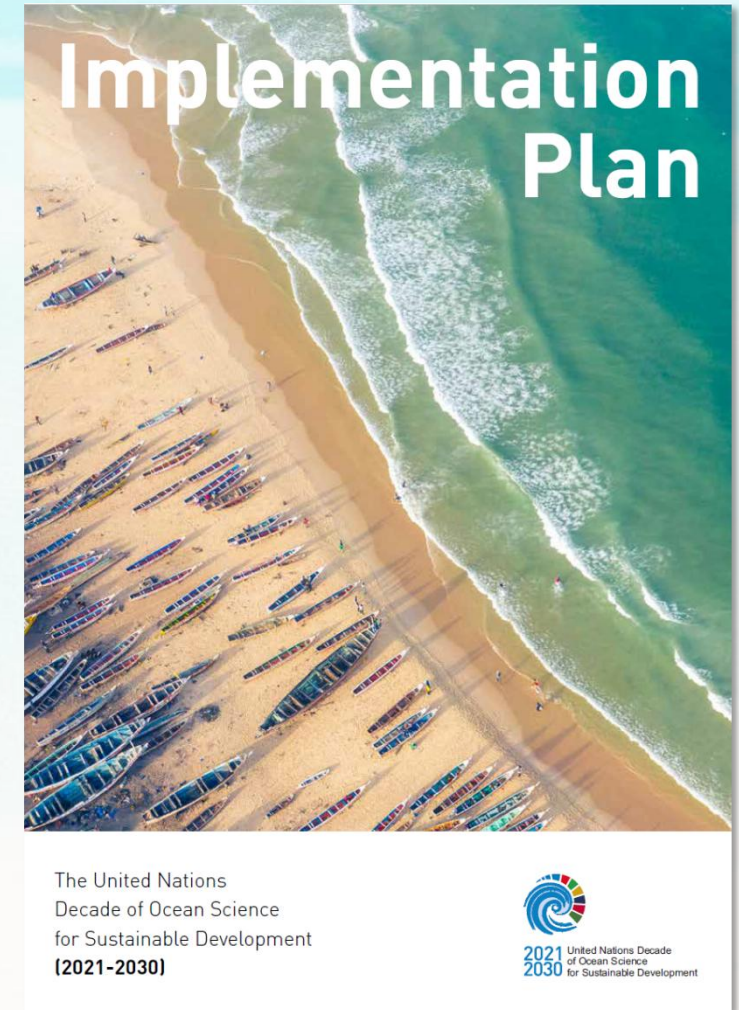


Vision

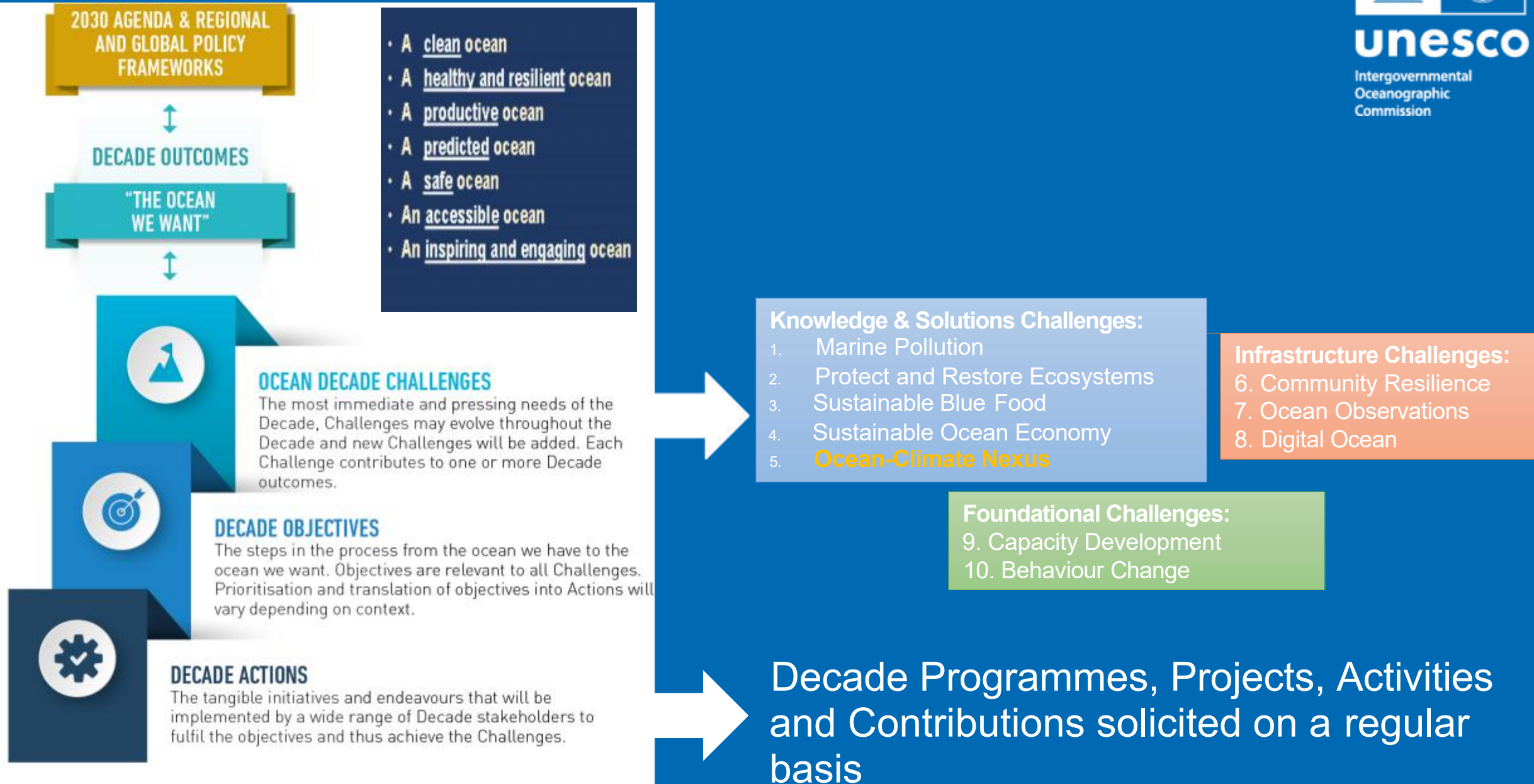
The science we need for the ocean we want

Mission

Transformative ocean science solutions for sustainable development, connecting people and our ocean.



The Decade Action Framework



Governance & Coordination Structures

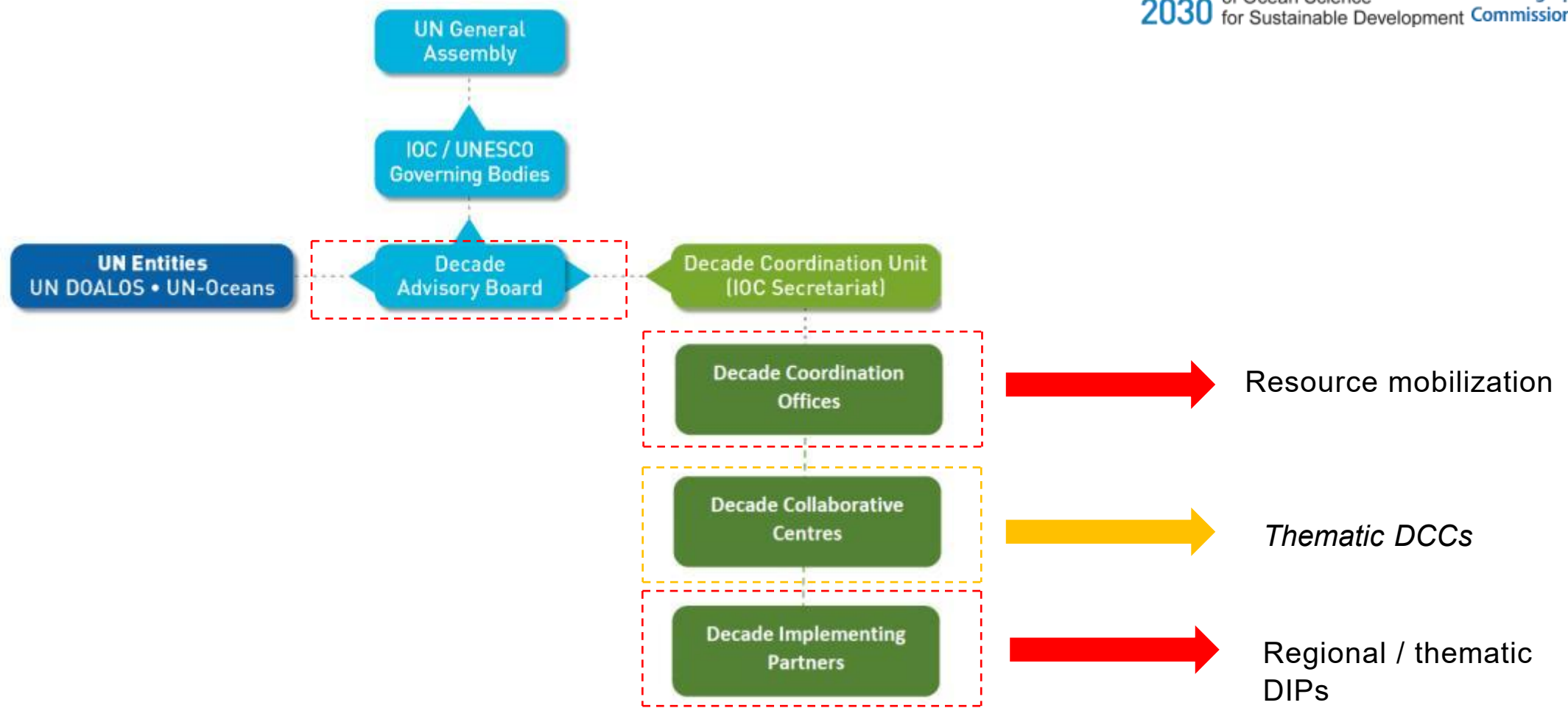


2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development



unesco

Intergovernmental
Oceanographic
Commission



Decentralised Coordination Structures

Decade Coordination Offices

Decade Coordination Office for
Ocean Observing

Decade Coordination Office for
Ocean Data Sharing

Decade Coordination Office
for Connecting People and
Ocean

Decade Coordination Office
for the Western Pacific

Decade Coordination Office
for the Tropical Americas and
Caribbean

Decade Coordination Office for
Africa

Decade Collaborative Centres

Decade Collaborative Centre
for Coastal Resilience

Decade Collaborative Centre
for Ocean Prediction

**Decade Collaborative Centre
on Ocean-Climate Nexus
(FIO, China)**

Decade Collaborative Center
Challenge 4 – Sustainable
Ocean Economy

Decade Collaborative Centre
for the Pacific Islands Region
of the Pacific Ocean

Decade Collaborative Centre
for the Indian Ocean Region

Decade Collaborative Centre
for the Southern Ocean
Region

Decade Implementing Partners

European Marine Board

JPI Oceans

Heirs to Our Ocean

EurOcean

National Institute of
Oceanography and Fisheries
(NIOF)

Peking University

The Administrative Centre for
China's Agenda 21

Royal London College of
Art

...

National Decade Committees

43 NDCs established –
additional efforts
needed to encourage
new NDCs in SIDS and
LDCs including in Africa

Structured system for
supply and demand of
support being
established

Calls for Decade Actions



As of 31 August 2026, the UN Ocean Decade has launched

11

Calls for Decade Actions

Ten Decade Challenges

Resource Mobilization

Capacity Development

Polar Regions

Science–policy–society Interface

Africa and Small Island Developing States (SIDS)

Broad global engagement

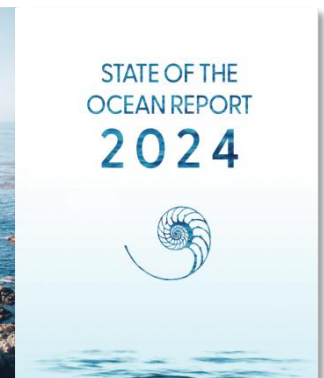
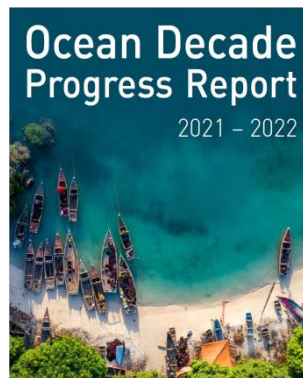
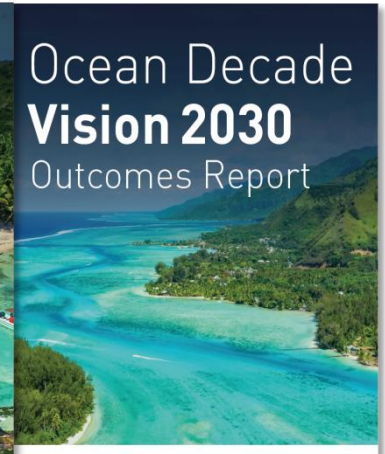
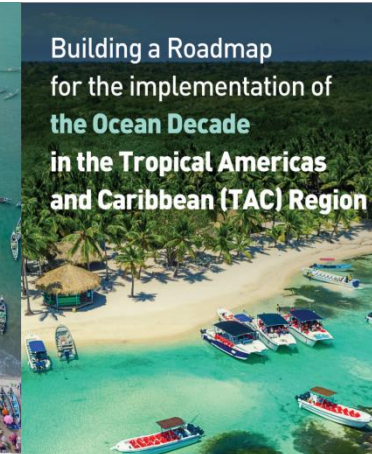
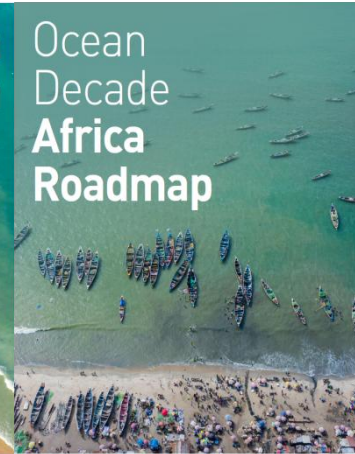
63	7	28
Programmes	DCCs	Implementation Partners
700+	6	43
Projects	DCOs	National Decade Committees
		100+
		Contributions



63 Programmes

- United Nations: 13
- US: 13
- China: 10
- UK: 9
- Germany: 3

Key Ocean Decade Strategic Documents



Ocean Decade Conferences



- ▶ **2021**
Berlin, Germany Online Conference
- 10–12 April 2024**
- ▶ **The 2nd UN Ocean Decade Conference**
Barcelona, Spain
 - 2,630 participants from 124 countries attended in person
 - More than 3,000 participants joined online
 - 165 satellite events were organized alongside the conference
- 7–9 April 2027**
The 3rd UN Ocean Decade Conference
- ▶ **Rio de Janeiro, Brazil**
Expected attendance: more than 2,000 participants





DCC-OCC

Ocean Decade Challenges

OCEANDECADECHALLENGES

The most immediate and pressing needs of the Decade, Challenges may evolve throughout the Decade and New Challenges will be added. Each Challenge contributes to one or more Decade outcomes,



Understand and map land and sea-based sources of pollutants and contaminants and their potential impacts on human health and ocean ecosystems, and develop solutions to remove or mitigate them.



Understand the effects of multiple stressors on ocean ecosystems, and develop solutions to monitor, protect, manage and restore ecosystems and their biodiversity under changing environmental, social and climate conditions.



Generate knowledge, support innovation, and develop solutions to optimise the role of the ocean in sustainably feeding the world's population under changing environmental, social and climate conditions.



Generate knowledge, support innovation, and develop solutions for equitable and sustainable development of the ocean economy under changing environmental, social and climate conditions.



Enhance understanding of the ocean-climate nexus and generate knowledge and solutions to mitigate, adapt and build resilience to the effects of climate change across all geographies and at all scales, and to improve services including predictions for the ocean, climate and weather.



Enhance multi-hazard early warning services for all geophysical, ecological, biological, weather, climate and anthropogenic related ocean and coastal hazards, and mainstream community preparedness and resilience.



Ensure a sustainable ocean observing system across all ocean basins that delivers accessible, timely, and actionable data and information to all users.



Through multi-stakeholder collaboration, develop a comprehensive digital representation of the ocean, including a dynamic ocean map, which provides free and open access for exploring, discovering, and visualizing past, current, and future ocean conditions in a manner relevant to diverse stakeholders.



Ensure comprehensive capacity development and equitable access to data, information, knowledge and technology across all aspects of ocean science and for all stakeholders.



Ensure that the multiple values and services of the ocean for human wellbeing, culture, and sustainable development are widely understood, and identify and overcome barriers to behaviour change required for a step change in humanity's relationship with the ocean.

Challenge 5

Unlock ocean-based solutions to climate change.

Mission

- Understanding of the ocean-climate nexus
- Knowledge and solutions to climate change
- Stakeholders/partnerships engagement
- Best practices and products delivery

A platform of supporting, catalyzing, co-designing, advocating

Key Responsibilities

- 01 **Coordinating** Decade Programmes
- 02 Stakeholder **engagement**
- 03 **Catalyzing** new Decade Actions
- 04 **Monitoring** and **Reporting**
- 05 Developing **Capacity**
- 06 **Communications**, Awareness Raising and Outreach
- 07 Mobilization of **Resources**
- 08 **Best Practice** for Modelling Community
- 09 Coordinating **Decade Implementing Partners** in China
- 10 Supporting the **China's National Decade Committee**

 **2021
2030** United Nations Decade
of Ocean Science
for Sustainable Development

**Endorsed on
8 June, 2022** ▶

Hosted by FIO, China

**Support from DCU, other
DCCs and DCOs**



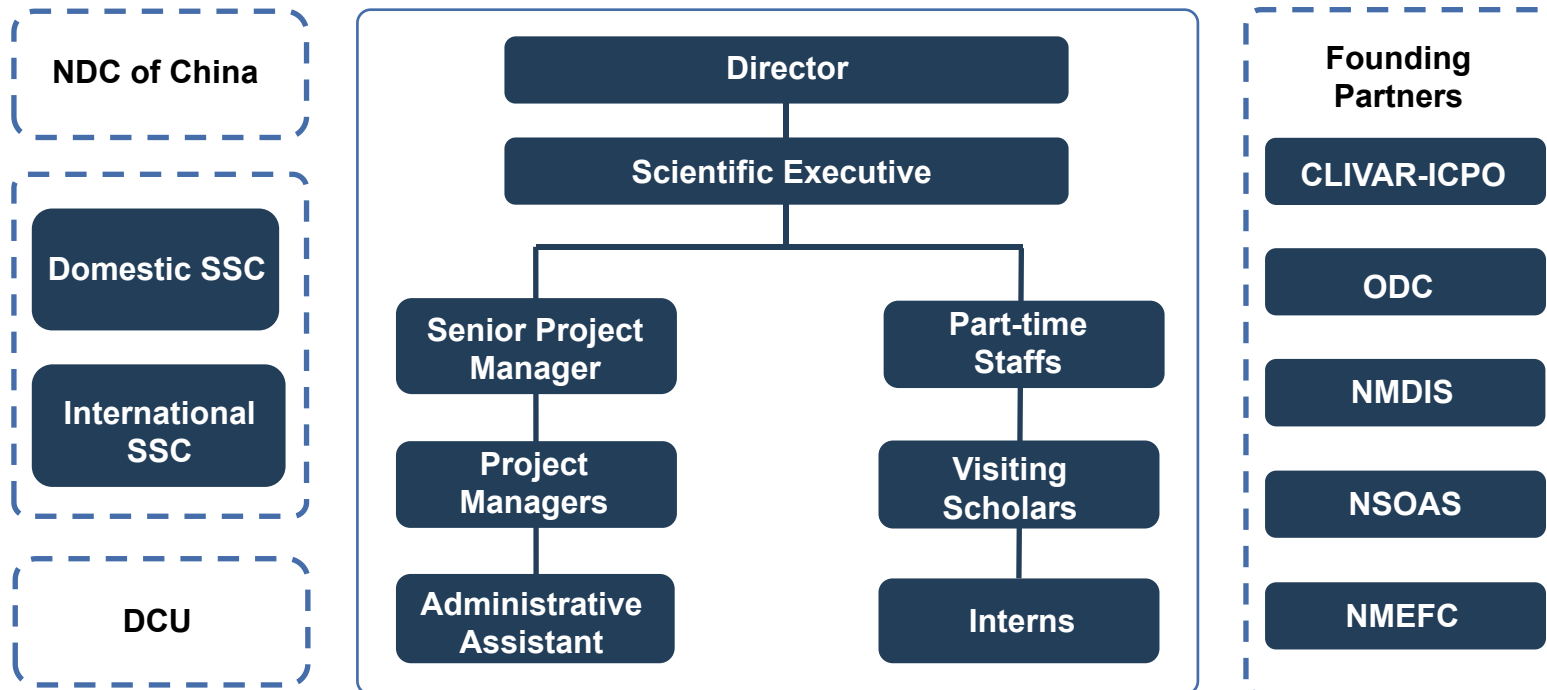
International Launching Conference

27-28 Sep. 2023
Qingdao, China

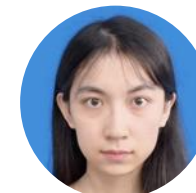
Over 300 participants
from over 100
organizations and nearly
30 countries

2 plenary sessions
6 parallel sessions

Organizational Structure



Interns



LIU Dan
graduate



WANG Linxuan
undergraduate



HE Yixuan
Undergraduate



Mathé Attiglah
(Togo)
Ph. D Student



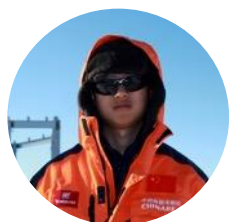
Leonardo Fontes Bachá
(Brazil)
Ph. D Student



LI Wei
Ph. D Student



HAN Shiting
Undergraduate



Dr. ZHAO Jiechen



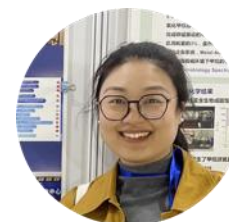
Prof. YU Weidong



Prof. QIAO Fangli



Dr. GUAN Song



Ms GUO Minsi

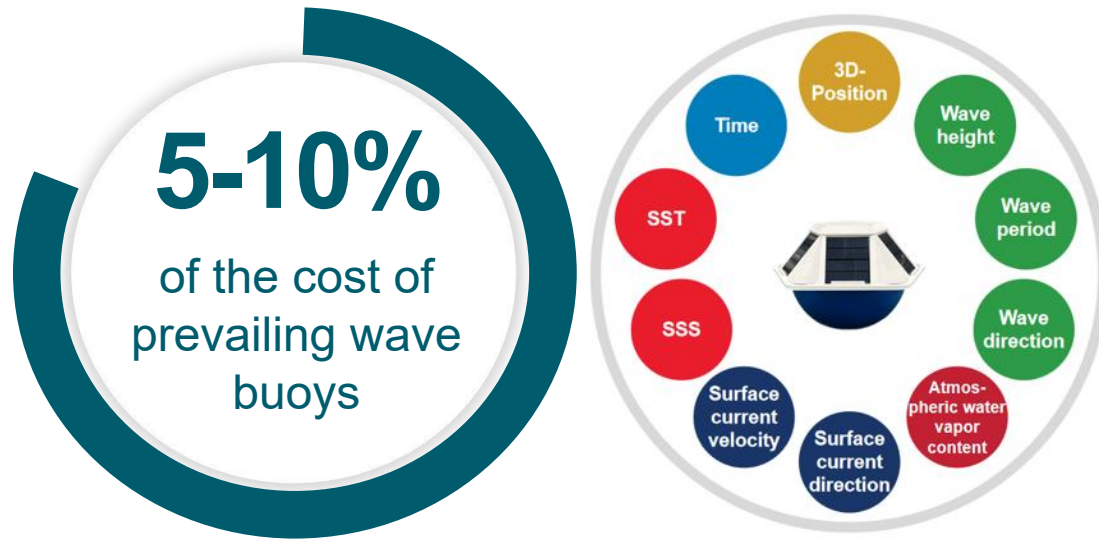
Public Products: (1) Observation



中国海洋发展基金会
CHINA OCEANIC DEVELOPMENT FOUNDATION



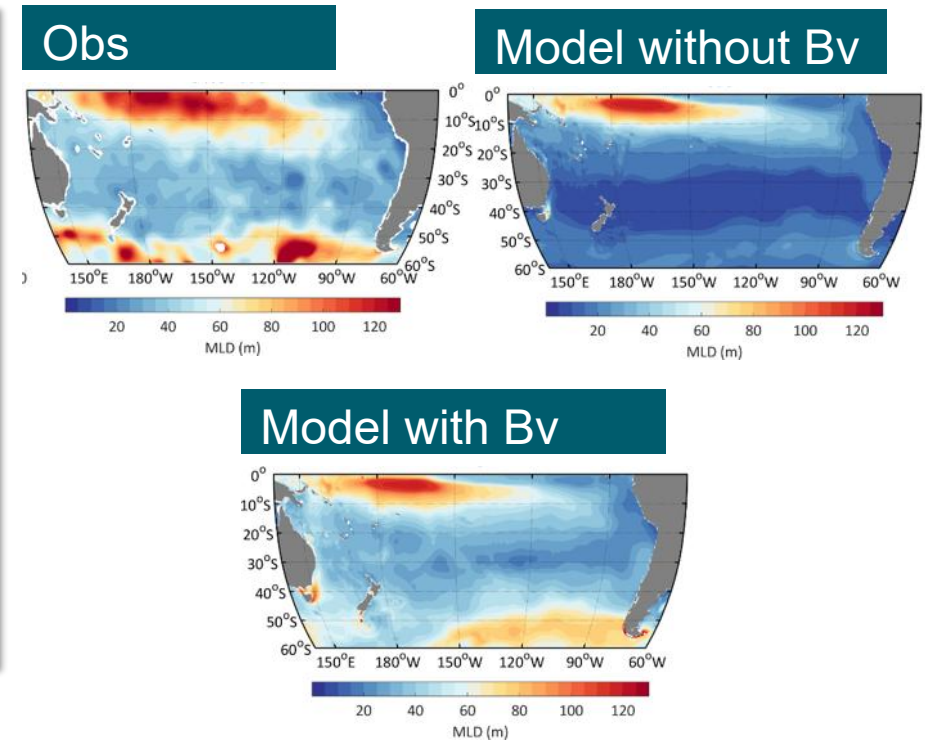
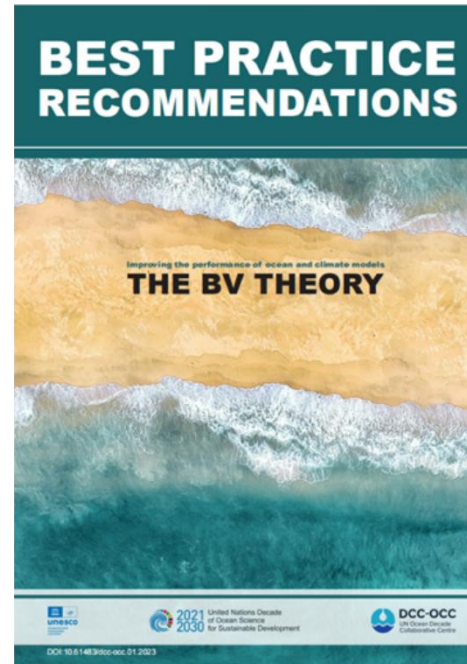
New Generation Low-cost GNSS drifting Buoy JINGWEI



- Contribution to LDCs and SIDs:
Fiji, Yemen, Maldives, Antigua and Barbuda
- Collaboration with Private sector and DIP:
China Oceanic Development Foundation



Public Products: (2) Modelling --- *Bv Theory*



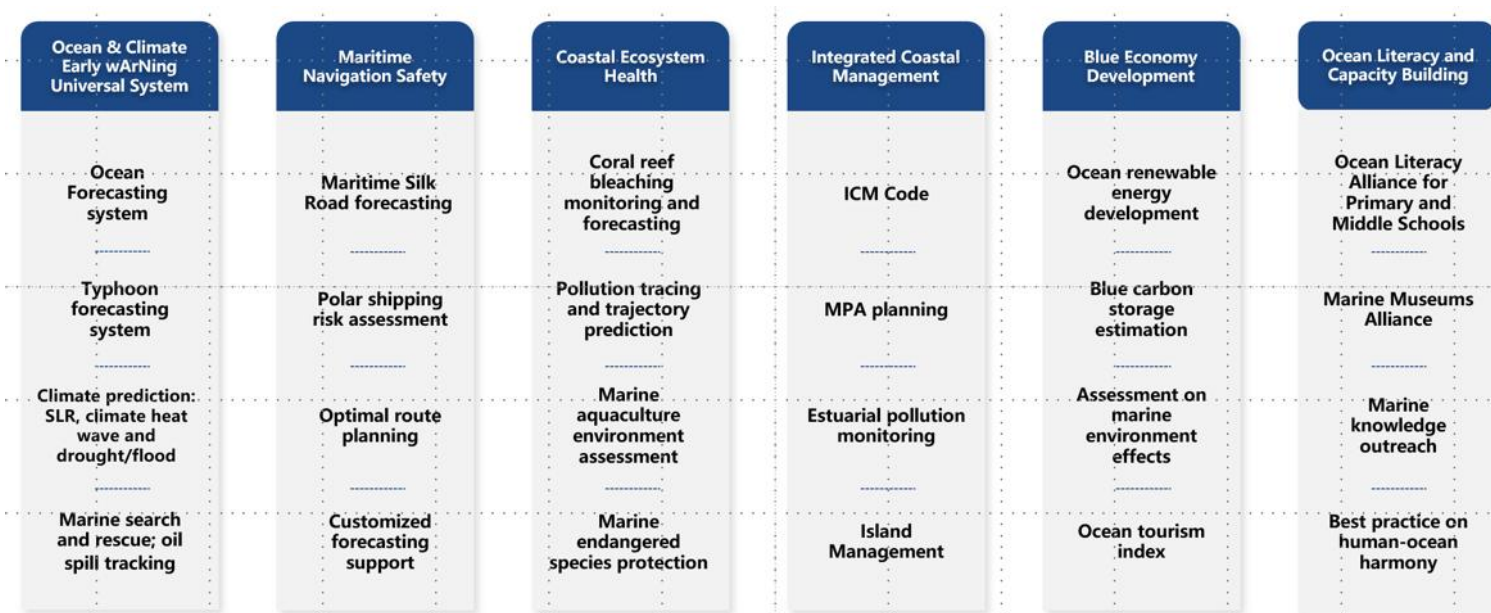
$$B_V = \alpha \iint_{\vec{k}} E(\vec{k}) \exp(2kz) d\vec{k} \frac{\partial}{\partial z} \left[\iint_{\vec{k}} \omega^2 E(\vec{k}) \exp(2kz) d\vec{k} \right]^{\frac{1}{2}}$$

Issue I Bv Theory

Launching Ceremony at the DCC-OCC International Launching Conference

Public Products: (3) *COAST Toolkit*

Coastal city Ocean-bAsed Solution Toolkit for sustainable development (**COAST**)



Data support

State-of-the-art model + AI

Capacity building



toolkit.dcc-occ.cn

Public Products: (3) *COAST Toolkit*

Launched at UNOC3 and received high praise and positive feedback

❑ Special Event: Ocean Rise and Coastal Resilience Summit

- Over 200 coastal city mayors or governors
- Strong interest for the application of COAST

❑ Side Event (Blue Zone): Bridge Ocean Science and End-users through Toolkit

- China, Egypt (**NIOF-DIP**), France (**DCC-OP**), UNESCO-IOC, ISA
- An important contribution to the Global South



Regional Collaboration: (1) Africa

Develop the Capacity of ocean observing and forecasting in Africa through collaboration with international partners

- Public products and services
- Support IOC-AFRICA

Co-designing: Ocean Observation for the Tropics

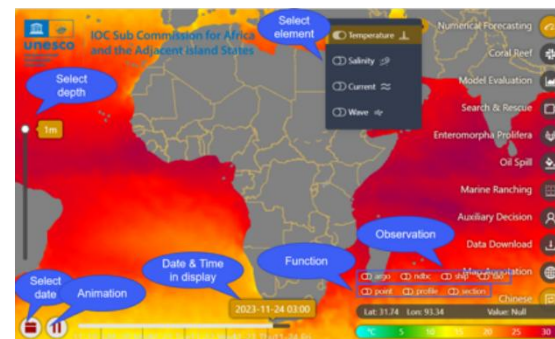
- flagship satellite event of 2024 Ocean Decade Conference
- DCC-OCC, GOOS, OOPC, CLIVAR, WCRP and NOAA
- Barcelona, Spain, 11 April, 2024

Agulhas Current Observing System Design Workshop

- DCC-OCC/GOOS/OOPC/SAEON/WCRP/NOAA
- Cape Town, South Africa; Sep. 9-13, 2024
- Travelling Support for 6 young scholars (Tanzania, Indonesia, Madagascar, China)
- GOOS Co-design exemplar-boundary current

8th Session of the IOCAFRICA

- Mombasa, Kenya; 7-9 May, 2025





Agulhas Current Observing System Design Workshop

September 9 - 12, 2024
President Hotel, Cape Town, South Africa

WHAT?
The purpose of this workshop is to understand **priority gap areas**, develop observational **requirements** and a **draft design** of an ocean observing system to better understand key features in the Agulhas Current region that influence critical areas e.g., **Tropical Cyclones, Marine Life and Marine Heatwaves**.

WHO?
We highly encourage experts from the **Intermediary*** stakeholder community to participate in this workshop including ocean and atmospheric observationalists, modelers and operational forecasters.

*INTERMEDIARY USERS - are intermediaries to the End Users, who/they integrate the ocean observing data into forecasts, assessments, or other products and services for delivery of information products and services to the end users.

Pre-register - [here](#)

*Please note that due to limited space, only participants receiving confirmation of attendance will be able to attend in-person. Confirmations will be sent out by July 5th.

Student & ECOP Travel Support Request - [here](#)

Deadline: July 5th

MORE INFORMATION
For questions, please contact: j.morris@saeon.nrf.ac.za and ann-christine.zimbani@noaa.gov

@AtlantOS_Ocean @GOOS_Ocean @DCC_OCC @GOOS_Ocean

www.atlantos-ocean.org www.goos-ocean.org

 **GOOS** • GOOS • WCRP

 **OOPC** Ocean Observations Physics and Climate panel

Regional Collaboration: (2) *Rim Indian Ocean*

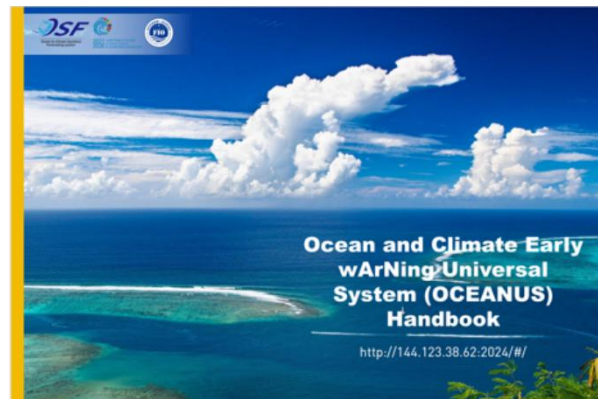
Co-design a regional mechanism of blue disaster prevention and mitigation

International Workshop on Blue Disaster Prevention and Mitigation

- DCC-OCC/Elsevier/FIO; Qingdao, China/24 Oct. 2024
- Madagascar, Maldives, Kenya, Indonesia, Sri Lanka, and Malaysia
- Ocean and Climate Early wArNing Universal System (OCEANUS)
- The consensus on a new mechanism of blue disaster prevention and mitigation

First Intergovernmental Session of the IOC Sub-Commission for the Central Indian Ocean

- UAE, May 18-24, 2025



Regional Collaboration: (3) Southeast Asia

Promote UN Ocean Decade through Regional Cooperation

8th China-Southeast Asian Countries Marine Cooperation Forum

- DCC-OCC/SEE/FIO
- Jakarta, Indonesia/28 Nov. 2024

Engage diverse stakeholders

- DCC-OCC+SEE Foundation + IPB University + Pesisir Lestari Foundation
- Indigenous and local knowledge

Capacity building

- Workshop Training on Marine Science Investigation and Observations
- Training Course on Marine Scientific Research in the South China Sea



Visit and Exchange

Africa



Egypt /
Kenya

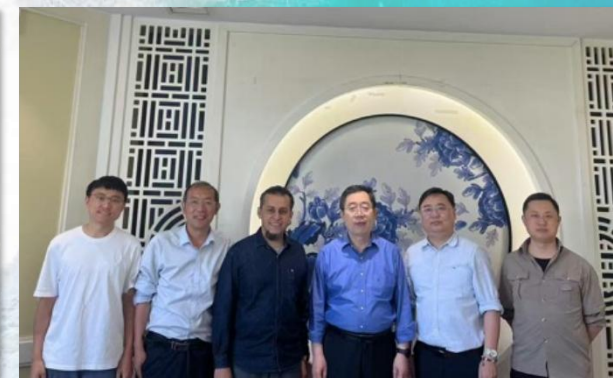


Togo

Southeast Asia



Malaysia



SIDs



The Cook
Island

South America



Brazil

Europe



France



Italy



Ocean Literacy: (1) Exhibitions

Ocean & Climate Village World Touring Exhibition



PRADA Group



DCC-OCC
联合国海洋十年海洋与气候协作中心



尤伦斯当代艺术中心
Center for Contemporary Art



Qingdao, China/14-15 Oct.
2023



Shanghai, China/10-19, Oct.
2025



Chinese Navigation Technology and Culture Exhibition

mmb MUSEU MARÍTIM DE BARCELONA



DCC-OCC
联合国海洋十年海洋与气候协作中心



Barcelona, Spain/9 – 26 April,
2024



Global Youth Ocean Art Exhibition



Shenzhen, China/30-31, Oct.
2025



Ocean Literacy: (2) Ocean Decade on Campus

1st Session (Jan. 2024)

- East China Normal University
- Lectures + Roundtable



2024.1 Shanghai

2nd Session (Jun. 2024)

- Sun Yat-Sen University
- Ocean Decade on Campus Alliance (80 members)



2024.6 Zhuhai

3rd Session (Jul. 2024)

- Elsevier/ODC
- Webinars (over 13000)



2024.7 Online

4th Session (Jan. 2025)

- SUSTech
- Exhibition of LOGO Designing Competition



2025.1 Shenzhen

7th Session (25/12/2025)

- Sun Yat-Sen University
- Science-policy dialogue



2025.12 Guangzhou

6th Session (25/12/2025)

- Guangxi University
- Ocean Decade and China's Contribution



2025.9 Nanning

5th Session (7-8/6/2025)

- East China Normal University
- World Ocean Day



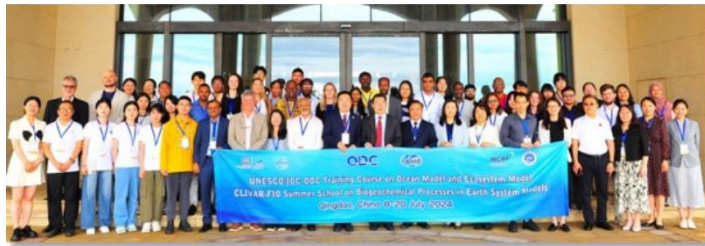
2025.6 Shanghai

Ocean Literacy: (3) Training Courses

UNESCO/IOC-ODC Training Courses



12th ODC Training Course on Ocean Model and Data Assimilation (10-21 Jul. 2023, Qingdao)



13th Training Course on Ocean Model and Ecosystem Model (8-20 July 2024, Qingdao)



14th Training Course on Application of Ocean Forecast System (1-12 Sep. 2025, Qingdao)

Training Course on Marine Scientific Research in the South China Sea



Jul, 2023, Qingdao



Jul, 2024, Qingdao



Jul, 2025, Qingdao

Thematic Training

Training Course on Prevention and Mitigation of Ocean and Climate Disasters



15-18 Sep. 2025, Qingdao

Training Course on Biochemical Technology



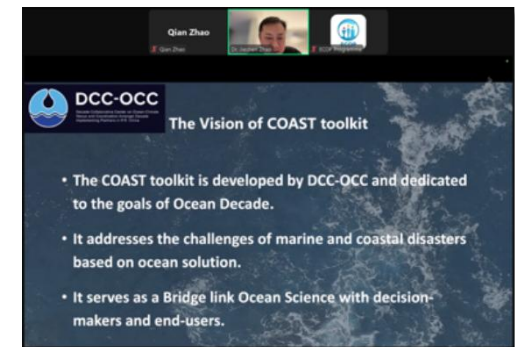
16-19 Sep. 2025, Qingdao

International Training Program on Deep-sea Ecology & Sustainability



14-28 Oct. 2025, Hangzhou

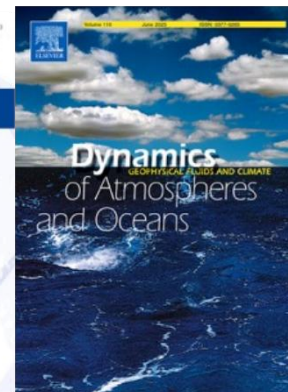
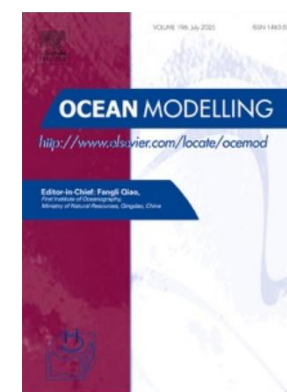
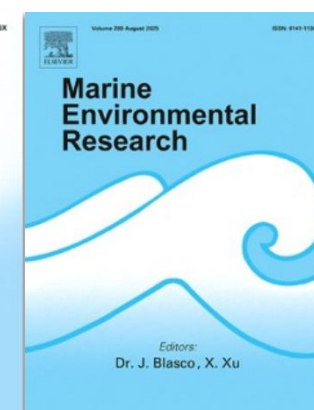
Training Course on Bridging Science with Societal Needs through Public Products



16 Oct. 2025, online

Engagement: (1) Collaboration with *Elsevier*

- MoU (Jul. 2024)
- Webinars (Jul. & Dec. 2024) (>13000 audiences)
- International Conference (Oct. 2024)
- Founding member of Ocean Decade on Campus Alliance
- **Ocean Decade Special Issues** (1st round: 5 topics/7 journals) (Jul. 2025)
- Workshop on the Development Strategy of Ocean Journals (Jul. 2025)
- Senior Vice President of Elsevier visited DCC-OCC (Sep. 2025)



Engagement: (2) *Beijing Forum (2025)*

- **Collaboration with DIPs**
 - ✓ Peking University
 - ✓ The Administrative Center for China's Agenda 21
 - ✓ Southern University of Science and Technology
- **Promote engagement**
 - ✓ China Ocean Mineral Resource R&D Association
 - ✓ First Institute of Oceanography
 - ✓ Fudan University
 - ✓ Sun Yat-sen University
 - ✓ Elsevier
- **Cross-cutting dialogue**
- **Legacy of Ocean Decade**



Engagement: (3) Collaboration with **ECOPs**

ECOPs Session at the DCC-OCC International Launching Conference (Sep. 2023)



Qingdao Declaration of Young Ocean Talents (Sep. 2025)



Travelling Support for 6 young scholars (Tanzania, Indonesia, Madagascar, China) to South Africa (Sep. 2024)

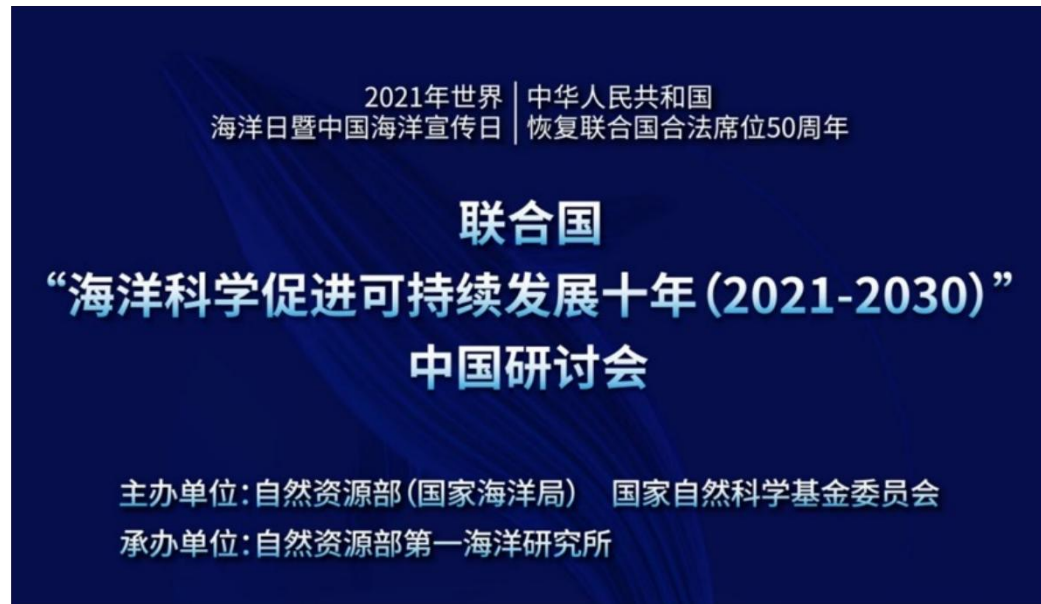


Youth Action in the Ocean Decade Flash Event (Oct. 2025)



National Coordination

- **National Launching Conference** in Qingdao on June 8, 2021
- **National Decade Committee** on 23 August, 2022
- **National Decade Action Framework of China** on 23 August, 2022



National Coordination

- Coordinate **DIPs, Programmes, Projects** in China
- Convene the **national annual conferences** of ocean decade (2022/2023/2024/2025)
- Publish the **Progress of Ocean Decade Actions in China (2021-2025)**



Qingdao Dec. 2022



Guangzhou Dec. 2025



Shenzhen Jan. 2025



Shanghai Jan. 2024



Thanks



DCC-OCC
Decade Collaborative Center on Ocean-Climate
Nexus and Coordination Amongst Decade
Implementing Partners in P.R. China



**2021
2030**

United Nations Decade
of Ocean Science
for Sustainable Development