



United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation
la science et la culture

Organización
de las Naciones Unidas
para la Educación
la Ciencia y la Cultura

Организация
Объединенных Наций по
вопросам образования
науки и культуры

Intergovernmental
Oceanographic
Commission

Commission
océanographique
intergouvernementale

Comisión
Oceanográfica
Intergubernamental

Межправительственная
океанографическая
комиссия

UNESCO/IOC's Sub Commission for Africa & the adjacent Island States, and *UN Decade of Ocean Science for Sustainable Development*

Mika Odido

IOC Coordinator in Africa

IOC Sub Commission for Africa & the Adjacent Island States



United Nations
Educational, Scientific and
Cultural Organization

Contribute to the building of peace, the eradication of poverty, and sustainable development and intercultural dialogue through education, the sciences, culture, communication and information.

MAJOR PROGRAMS

- Education Sector
- Natural Sciences Sector
- Social and Human Sciences Sector
- Culture Sector
- Communication and Information Sector

Intergovernmental Oceanographic Commission of UNESCO

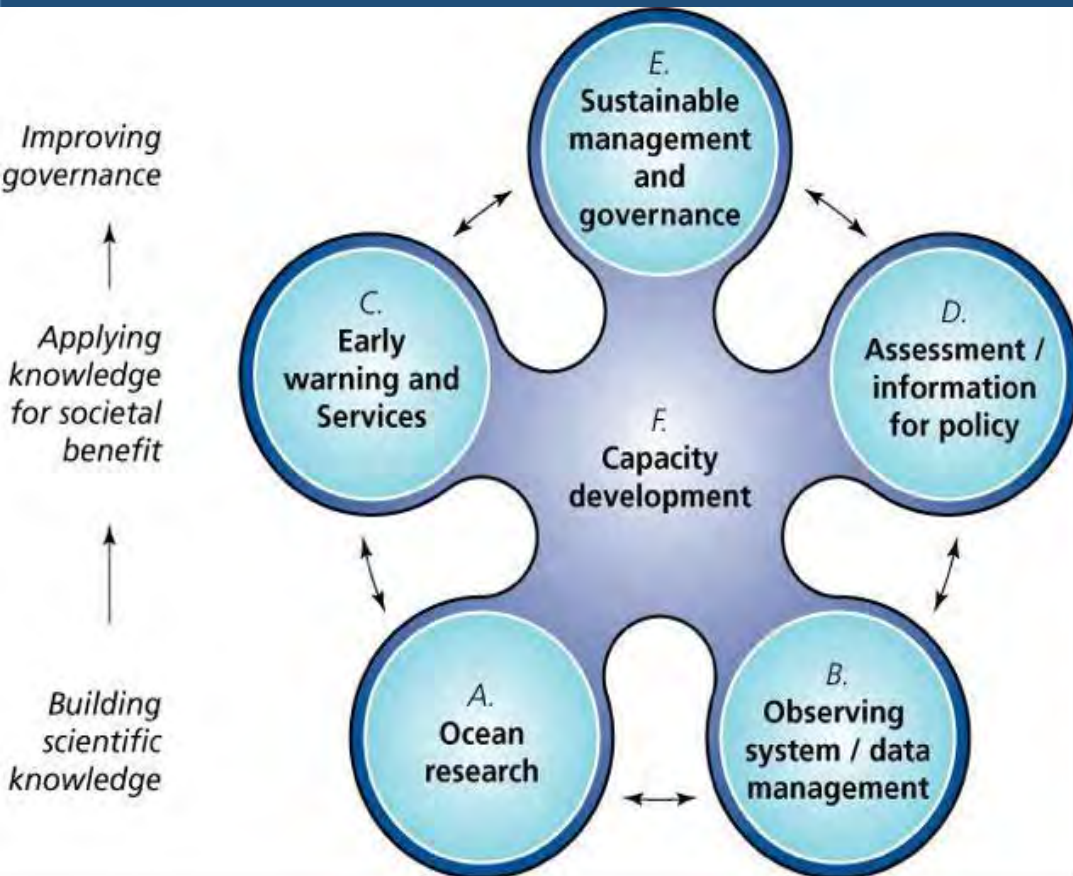
Global Priorities: Africa & Gender Equality

Other Focus: Youth and SIDS



The Intergovernmental Oceanographic Commission (IOC) of UNESCO, 1960->, 150 Member States

- Intergovernmental body of the UN system for **ocean science, observations, data exchange, services, capacity development, and science-to-governance work**
- Functionally autonomous part of UNESCO, 150 Member States, 1960 ->



- A. Foster research to strengthen knowledge of ocean and coastal processes and human impacts upon them [Ocean research]
- B. Maintain, strengthen and integrate global ocean observing, data and information systems [Observing system / data management]
- C. Develop early warning systems, services, and preparedness to mitigate the risks of tsunamis and ocean-related hazards [Early warning and services]
- D. Support assessment and information to improve the science-policy interface [Assessment and Information for policy]
- E. Enhance ocean governance through a shared knowledge base and improved regional cooperation [Sustainable management and governance]
- F. Develop the institutional capacity in all of the functions above, as a cross-cutting function [Capacity Development]

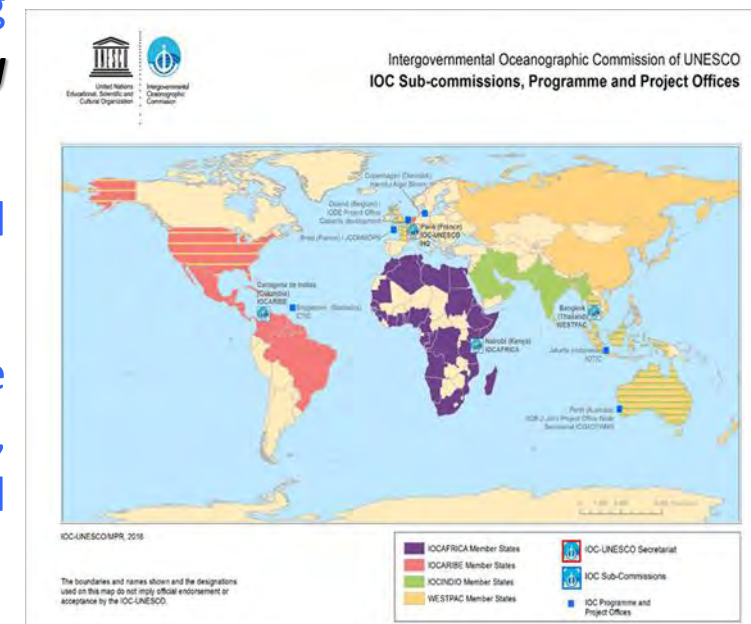


IOCAFRICA WORK PROGRAMME 2019-2021



One Planet, One Ocean

- **Ocean Observations and Monitoring:** reinforcing ocean observations; optimizing the sharing, exchange and common utilization of marine equipment, including **joint research cruises and expeditions**; (***Survey of Status of Sea Level Observing network, and Ocean Observation Network***)
- **Ocean Sciences and Assessments :** Climate change adaptation in the coastal zones, IOCAFRICA-HAB programme, survey and assessment of marine pollution,
- **Ocean Data and Information Management:** regional Ocean Data portal and the regional contribution to the IOC Ocean Data and Information System (ODIS), Regional coastal and marine atlases, the African Register of Marine Species, and processing, analysis and interpretation of data from regional cruises.
- **Capacity development for marine science and technology:** comprehensive survey of capacities available, collaboration between academic and research institutions, Regional centres (OTGA RTC, UNESCO Chairs and Centres of Excellence)
- **Governance, Science Policy interface, Awareness:** Marine Spatial Planning, Ocean literacy/awareness activities especially targeting youth, and regional policy briefs on relevant goals of Agenda 2063 and 2030.



3 Regional Sub Commissions:

- ✓ IOC-WESTPAC
- ✓ IOC-ARABIA
- ✓ IOCAFRICA

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

Decade's Vision

*To provide the knowledge system needed
for policy and action to achieve a global
ocean supporting sustainable development
by 2030 and beyond*



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



Decade Objectives

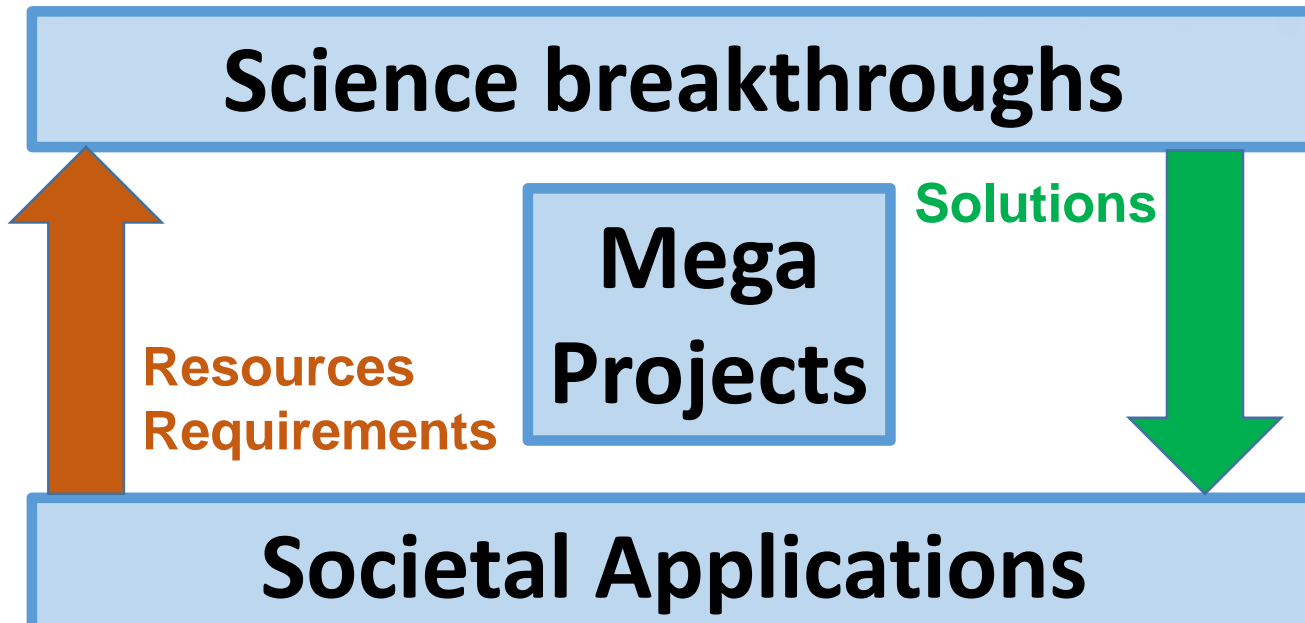


A Decade to provide the global framework:

- to support efforts to reverse the cycle of decline in Ocean health & create improved conditions for sustainable development
- to structure and boost scientific efforts at national and international levels
- to empower governments and societies with science-based solutions



UN Decade of Ocean Science for Sustainable Development (2021-2030)



- Mapping, digital atlas
- Observing system
- Ecosystem knowledge
- Data and Information
- Multi-Hazard Warning Systems
- Ocean in Earth System Science
- CD, Education, Ocean Literacy



Coastal zone management



Marine Spatial Planning/
Blue economy



Aquaculture /
Fishery management



Disaster Risk Reduction
(Re-)insurance



Adaptation Mitigation
Climate services



Governance:
Policies
Peace
Security

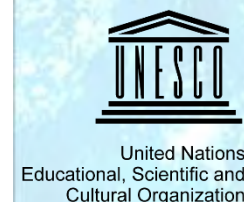


Proposal for an International
Decade of Ocean Science for
Sustainable Development
(2021-2030)



DECADE OUTCOMES

1. A clean ocean where sources of pollution are identified and reduced or removed.
2. A healthy and resilient ocean where marine ecosystems are understood, protected, restored and managed.
3. A productive ocean supporting sustainable food supply and a sustainable ocean economy.
4. A predicted ocean where society understands and can respond to changing ocean conditions.
5. A safe ocean where life and livelihoods are protected from ocean-related hazards.
6. An accessible ocean with open and equitable access to data, information and technology and innovation.
7. An inspiring and engaging ocean where society understands and values the ocean in relation to human wellbeing and sustainable development.

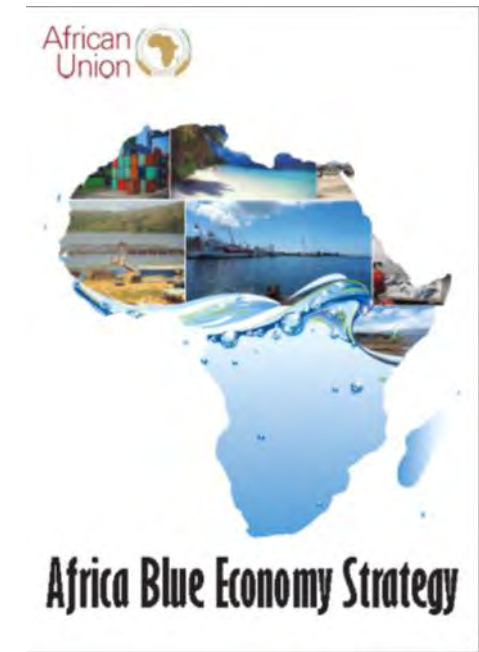
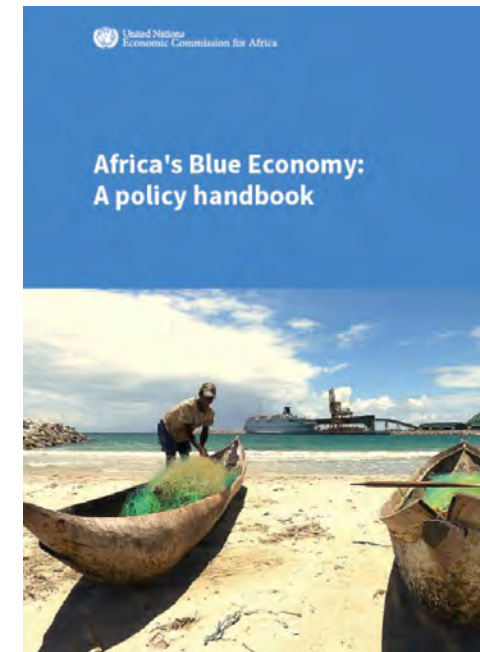
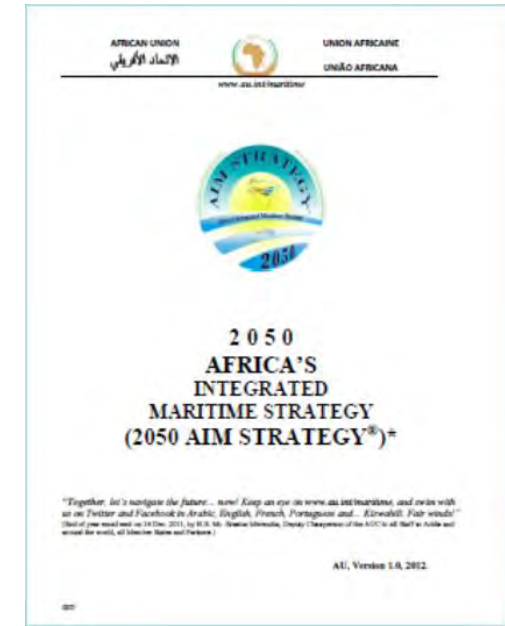
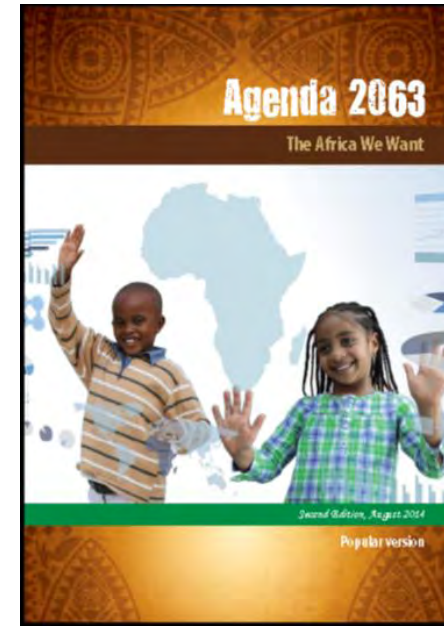


One Planet, One Ocean

- A clean ocean
- A healthy and resilient ocean
- A productive ocean
- A predicted ocean
- A safe ocean
- An accessible ocean
- An inspiring and engaging ocean

AGENDA 2063: Recognizes *that Africa's Blue economy shall be a major contributor to continental transformation and growth, advancing knowledge on marine and aquatic biotechnology, the growth of an Africa-wide shipping industry, the development of sea, river and lake transport and fishing; and exploitation of and beneficiation from deep sea mineral and other resources*

- ✓ Africa Integrated Maritime Strategy 2050
- ✓ Declaration of 2015-2025 as the "Decade of African Seas and Oceans"
- ✓ Declaration of 25 July as the African Day of Seas and Oceans.
- ✓ Preparation by UNECA of the Africa's Blue economy handbook
- ✓ Adoption of the Africa Blue Economy Strategy
- ✓ UN Decade of Ocean Science for Sustainable Development



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Science-Metrix N° Papers



Global Ocean Science Report

EXECUTIVE SUMMARY

The Current Status
of Ocean Science
around the World





Regional Consultations on the UN Decade of Ocean Science for Sustainable Development (2021-2030) for Africa and the Adjacent Island States

27-29 January 2020, Nairobi, Kenya.



One Planet, One Ocean

Registered: More than 140 participants from 30 countries

Collaboration with UNEP, WIOMSA, GIZ, CORDIO, SCOR

PLENARY DISCUSSIONS ON CROSS CUTTING ISSUES LED BY PANELS OF EXPERTS

- Panel 1: Setting a regional vision for the Decade
- Panel 2: Innovative models to mobilise resources and create partnerships
- Panel 3: Capacity development and transfer of marine technology
- Panel 4: Communications and ocean literacy



KEY ISSUES IDENTIFIED FOR DIFFERENT OUTCOME AREAS



Intergovernmental
Oceanographic
Commission



Sustainable
Development
Goals

One Planet, One Ocean

A clean ocean.

- ✓ Marine litter and micro plastics
- ✓ Oil spills/ chemicals
- ✓ Eutrophication

A predictable ocean

- ✓ Data & Observations (access, storage, quality, ownership, collection and management, analysis/interpretation, integration, policies...)
- ✓ Research/Modeling(downscaling global models, data assimilation, coupled models, scenario development,
- ✓ Governance (awareness creation, policy development, science to sustainable development, strategic planning,

A healthy and resilient ocean.

- ✓ Understanding and using knowledge about what constitutes a healthy and resilient marine ecosystem
- ✓ Mapping and continuous monitoring of marine ecosystems in a changing environment
- ✓ Understanding and managing the linkages between ecosystem services and people that are highly dependent on them
- ✓ Developing the breadth of governance approaches relevant and needed to ensure healthy and resilient marine systems



KEY ISSUES IDENTIFIED FOR DIFFERENT OUTCOME AREAS



Intergovernmental
Oceanographic
Commission



Sustainable
Development
Goals

One Planet, One Ocean

A safe ocean

- ✓ Inadequate ocean management system (modelling extreme events and their impacts, baseline assessment to inform management ..)
- ✓ Physical alteration & destruction of habitat (natural barriers to mitigate extreme events, vulnerability assessments..)
- ✓ Inadequate Maritime security (Mapping & identification of high risk vulnerable areas, illegal activities ..)

A sustainably harvested and productive ocean

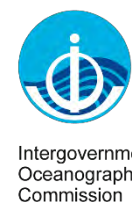
- ✓ Unsustainable exploitation of resources
- ✓ Climate variability/change and effects on marine ecosystem
- ✓ Ineffective governance (including IUU)
- ✓ Anthropogenic impacts on marine ecosystem

A transparent and accessible ocean with open access to data, information and technologies.

- ✓ Require a focus on user driven data
- ✓ Lack of common platform for data sharing; Incompatible metadata formats; Incompatible data (data existing in printed format/file type)
- ✓ Conflicting policies/law/guidelines within institutions/nations with regards to Open Access
- ✓ Technical incapability and inadequate resources to hire and retain staff/buy equipment etc.
- ✓ Lack of trust between organization/institution/governments



RECOMMENDATIONS



One Planet, One Ocean

1. ***Harnessing the demographic dividend*** by empowering the huge pool of youthful population. The focus should be on getting them into ocean sciences through ***focussed ocean literacy programmes, supporting skills development and mentoring*** to enable them fit in the job market and creating new opportunities for employment.
2. The Decade should ***catalyse research*** in the following fields: marine renewable energy and deep ocean water applications; bioprospecting, biotechnology and pharmaceuticals; mariculture and offshore aquaculture; climate change impacts and the oceans-climate nexus; baseline monitoring of essential ocean variables; mapping ecosystems and habitats; ***and linking the research results to societal applications.***
3. ***Improving the quality and quantity of research outputs.*** Scientists and institutions should think beyond producing publications to ***transforming lives through innovation and robust application of ocean science.***
4. Ocean research in the region should be ***strengthened through stronger integration of sciences, greater investment in ocean observing systems and improved science-policy interface.*** New partnerships should be developed, supported by a new ocean-climate finance, and improved ocean literacy and education to modify social norms and behavior...
5. Establishment of ***university-based ocean innovation incubator hubs, supported by the private sector,*** to serve as a conduit to transform research results to action via technological development that is adapted to regional and local contexts and led by African researchers.



Regional Gap Analysis

(with Western Indian Ocean Marine Science Association - WIOMSA)



One Planet, One Ocean

- **OBJECTIVE:** *Develop a participatory, succinct statement of the priority needs for Africa under the Ocean Decade and identify the key barriers, opportunities and actions to meet those needs.*
- 3 sub-regions: Western Indian Ocean, Eastern Atlantic, Mediterranean and Red Sea.
 - Identify the current state of knowledge and data in ocean science, transdisciplinary research as well as existing infrastructures, networks, partnerships and resources in the region.
 - Identify the knowledge gaps, scientific priorities, potential baselines and capacity-development needs in the region in order to achieve the Ocean Decade challenges.
 - Elaborate recommendations to co-design regional initiatives, identify opportunities to develop capacity development initiatives as well as opportunities of partnerships and resource mobilization in the region.



OTHER ACTIVITIES IN 2021

- Regional Communications on Ocean Decade with WIO-ECOPS
- **13-15 December 2021**, Alexandria, Egypt: Kick-off Conference of the UN Decade of Ocean Science for Sustainable Development for Africa and the Adjacent Island States

provide a forum to take stock of status of ocean science and technology in the region, deliberate on how ocean sciences in Africa should be supported and focused on delivering the required societal outcomes, and seek interest and commitment of the oceanographic community to embark on a number of directions of research which are critical for ocean sustainable management.

- Pre-conference workshop 6-8 December 2021, online.

IOC Sub Commission for Africa and the Adjacent Island States

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One Planet, One Ocean