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UNEP-GEMS Ocean

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UNEP-GEMS Ocean:
Harnessing multi-stakeholder partnerships to transform data into action
The Global Environment Monitoring System for the Ocean and Coasts (GEMS Ocean) Programme

Harnessing multi-stakeholder partnerships to transform data into action
Framing of GEMS Ocean
GEMS Ocean Vision and Mission

**Vision**
A global environment monitoring system that provides **relevant open and easily accessible ocean and coastal data, analysis, and information**, guiding actions to protect and sustainably use marine and coastal resources.

**Mission**
Co-design and convene a global Community of Practice across experts and society at large to provide **capacity, analysis, innovation** and synthesized information to decision and policy makers, civil society, international organizations as well as **coastal communities** worldwide in a holistic approach to keep the global ocean and coasts healthy and productive.
Strategic Goals

**GOAL 1:** Promote and convene a transdisciplinary partnership approach focusing on sustainable coastal and ocean use and ecosystem health.

**GOAL 2:** Strengthen capacity development on key aspects of ocean monitoring especially in SIDS and Developing Countries.

**GOAL 3:** Provide access to the use of quality assured, interoperable, open environmental data, analysis and sets of indicators to governments and stakeholders.

**Problem 1:** There are many observation and monitoring systems, but they are rather fragmented.

**Problem 2:** Many Small Island Developing States (SIDS) and Developing Countries don’t have the capacity and resources to undertake effective monitoring.

**Problem 3:** There is much information and data already but is not easily accessible and interpretable by non-experts.
Core-partnership (to date)
Endorsed Programme

The Science We Need for the Ocean We Want

2021 United Nations Decade of Ocean Science for Sustainable Development
A predicted ocean based on a shared and coordinated global effort in the framework of the UN Ocean Decade

To galvanize and coordinate efforts towards the co-development and integration of worldwide ocean prediction activities, serving Decade objectives and in close collaboration with the Decade endorsed actions and other stakeholders
Data system and supporting services

My Ocean Tool to combine and display global 4 dimensional break down of EOVs
MyOcean Tool

Sea water potential temperature
Temperatures above 30 °C
Possible ocean heat waves
Possible coral bleaching episodes

Chlorophyll a concentration
High concentration of Chlorophyll
Possible riverine nutrient inputs
Possible eutrophication episodes
Possible hypoxia episodes
Specific layers & values
Thematic Working Group on Data and Services

- EVs or SDG related: ensure data sources are endorsed by the respective panels and organizations (upstream)
- Define a set of endorsed/quality-controlled data sources, make sure they are registered in IODE's ODISCat (Catalogue of Sources) so that they can be identified explicitly and trusted
- Test harvest from these data sources, refine where needed and establish agreements (e.g. MoU) to ensure data sustainability and stable flows
- Feed visualisation tools and analytics which are re-circulated to data providers as a value-added component
Defining GEMS Ocean focus

- Work with **communities** and capacity building activities

- Connection with **Regional Seas**, LMEs and Member States (priority setting, co-design, feedback, reporting support)

- Matchmaking mechanism and user centric approach (i.e., engagement process down to community level to connect demand and supply)

- Demand driven approach

- Dynamic partnership model

- Ground truthing of data
Governance Mechanism

- **Community of Practice (CoP)**
  All the actors that responded on a voluntary in-kind/basis.

- **Steering Committee (SC)**
  Provide strategic guidance including review and approval of work plans, advice resource mobilisation, agreement on data standards.
  Membership by transparent selection process, from representatives of observing, monitoring, modelling, political, MEAs and private sector communities.

- **Thematic Working Groups (TWG)**
  Will act as the operational mechanism of the GEMS Ocean Programme and its CoP and develop deliverables to be reflected in work-packages. Possible TWG: Capacity Development, Data and Services, Engagement and Community outreach, Policy Support, Emerging issues and foresights.
Delivery system

1. DATA
Normative Services & Products (inform)

2. DATA UPTAKE
Regional Engagement & Test Cases (inspire)

3. SCALING
Innovative Solutions & Products (enable)

3. SCALING
GEMS role here will only be that of a catalyst

2. DATA UPTAKE
through a regional bottom-up approach

1. DATA
Mapped against MTS Pillars

- Pollution
- Biodiversity
- Climate
A World Environment Situation Room (WESR) implementing GEDS

SCIENCES
- Space Agencies
- National Statistics Offices
- UN Agencies
- In-situ Data
- Global Monitoring
- Citizen Science
- Other Data Providers

GLOBAL ENVIRONMENT DATA STRATEGY
- ONE GLOBAL PARTNERSHIP (24)
  - GRID-Centres Network (7)
  - GEO
  - NASA, ESA, USGS, EU/JRC, RADI
  - Private Sector
- UN Geospatial Network (37)

WORLD ENVIRONMENT SITUATION ROOM
- UNEP Data Centres
- Data Scientists Analysis and Processing
- Acting as One + Content Managers
- Data Platforms Contents & Services
  - DOCUMENTS
  - STATISTICS
  - GEOSPATIAL
- Support to Regions & Countries
  - SDGs
  - MEAs
  - Global Environment Monitoring Systems
  - Publications & Knowledge Repository
  - Foresights
  - Assessments

Policies
- Member States
- Policy Makers
- International Organizations
- Scientific Community
- Business & Innovators
- Citizens & Civil Society

Positive Impacts on People, Places, and Planet

DATA PROVIDERS

PARTNERS

Follow-up and Monitoring (Value Chain Reinforcing Mechanism)
World Environment Situation Room (WESR)

Facts & Figures

- 60 Countries covered by WESR - Common Country Analysis (CCA) and EC-Country fiches platforms
- 8 Pillars (topics)
- 406 Unique environmental indicators (cleared by experts)
- 159 Charts, maps and graphs per country (9540 total)
- 34 Dashboards for each country (2040 total)
- 193 Countries covered on the WESR-Climate change
- 28 Strategic foresights
- 1668 Datasets
- 70 Data providers
- 10 Environmental SDGs covered, including 26 indicators for which UNEP is the custodian agency
- 7 Global Environment Monitoring topics involved
- 6 World Regions involved
- 6 UNEP Divisions involved
- 37 UN Agencies
- 33 Partners from the One Global Partnership (including 8 GRID-Centres, private sector, Space Agencies, research institutes)
- 70 Partners
- >11000 Publications on the Environment supporting Developing Countries
- 50 Citizen science projects
- 26 Multilateral Environmental Agreements (MEAs) covered

https://data.unep.org/
Source to Sea (S2S) in practice - Enabling Action to protect and restore freshwater and marine ecosystems in the Wider Caribbean Region (WCR) with a focus on Small Island Developing States (SIDS) and Developing Countries

Objectives:

- Identify, assess, and analyse interlinkages among actions taken at national/regional level for achieving SDGs 6 and 14.
- Support national/regional reporting and monitoring on the achievement of these SDGs.
- Support capacity development and local solutions to regional and global pressures.
- Community and social engagement to explore data utility and development of key actions.
Recent events

➢ Digital Ocean Forum (20-22 April) Paris, France

➢ 22nd Global meeting of the Regional Seas Programme (25-28 May) Mahe, Seychelles

➢ Twenty-second meeting of the United Nations open ended informal consultative process on the oceans and law of the sea (6-10 June) New York, USA

➢ UN Ocean Conference (26 June - 1 July) Lisbon, Portugal

➢ Final Conference MSP-MED project (12-14 October) Rome, Italy
Thank you for your attention!

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Aspiring to Achieve the Sustainable Development Goal 14:

to "Conserve and sustainably use the oceans, seas and marine resources for sustainable development"