Intergovernmental Oceanographic Commission of UNESCO

International Oceanographic Data and Information Exchange

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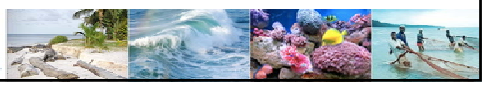


Overview

- What is UNESCO
- What is IOC
- What is IODE
- Organizing national data and information management
- Key national outcomes
- Marine Information Management
- IODE capacity building
- IODE Governance
- IODE: the next decade

UNESCO

"Since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed." UNESCO Constitution

- The United Nations Educational, Scientific and Cultural Organization
- Established: 16 November 1945
- Headquarters in Paris, France

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

UNESCO Objectives

Five [5] Overarching objectives:

- MAJOR PROGRAMME I – EDUCATION: Attaining quality education for all and lifelong learning
- MAJOR PROGRAMME II – NATURAL SCIENCE: Mobilizing science knowledge and policy for sustainable development
- MAJOR PROGRAMME III – SOCIAL AND HUMAN SCIENCES: Addressing emerging social and ethical challenges
- MAJOR PROGRAMME IV – CULTURE: Fostering cultural diversity, inter cultural dialogue and a culture of peace
- MAJOR PROGRAMME V – COMMUNICATION AND INFORMATION: Building inclusive knowledge societies through information and communication.

Global Priorities

Two [2] Global Priorities:

- Africa
- Gender Equality

About the IOC

- The IOC was created in 1960 ***to promote international cooperation and coordinate programmes in research, sustainable development, protection of the marine environment, capacity-building for improved management, and decision-making.***
- Within UNESCO, with functional autonomy
- Head Office in Paris, France

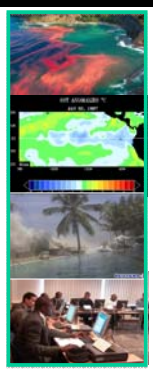
2008-2013
High-Level Objectives and Associated Activities

- Prevention and reduction of the impacts of natural hazards
- Mitigation of the impacts and adaptation to climate change and variability
- Safeguarding the health of ocean ecosystems
- Management procedures and policies leading to the sustainability of coastal and ocean environment and resources

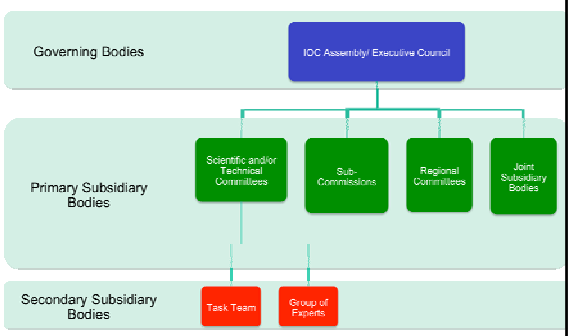
(Resolution EC-XXXIX.1)

IOC Programmes

- 4 main programmes/sections:
  - ***Ocean Science***: WCRP, IOCCP, OOPC, HAB, GLOBEC, ICAM
  - ***Ocean Observations and Services***: GOOS, JCOMM, IODE
  - *Tsunami Coordination Unit*
  - *Capacity Development*



IOC Governance/structure



IODE

IODE International Oceanographic Data and Information Exchange

- Established in 1961 '*to enhance marine research, exploitation and development by facilitating the exchange of oceanographic data and information between participating Member States and by meeting the needs of users for data and information products*'

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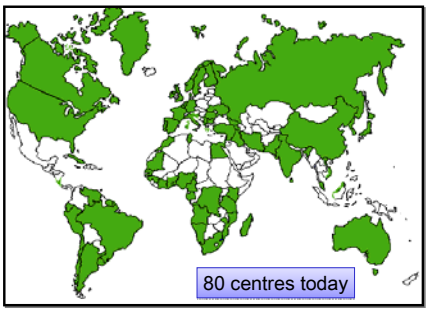
IODE =

- Network of oceanographic data centres



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IODE System Objectives?

- facilitate and promote the exchange …
- long term archival, management and services …
- promote the use of international standards…
- assist Member States to acquire the necessary capacity
- support international scientific and operational marine programmes of IOC and WMO...

AND

- SUPPORT SCIENCE, OBSERVATION AND COASTAL/MARINE MANAGEMENT PROGRAMMES (IOC D&IM strategy, 2007)

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Tasks of NODC

- receiving data from national, regional and international programmes collecting oceanographic data;
- verifying the quality of the data (using agreed upon standards)
- ensuring the long term preservation of the data and associated information required for correct interpretation of the data; and
- making data available, nationally and internationally.

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Data types?

- Physical Oceanography
- Chemical Oceanography
- Marine Contaminants/pollution
- Marine Biological/Fisheries
- Marine Geology/Geophysics
- Marine Meteorology (some)

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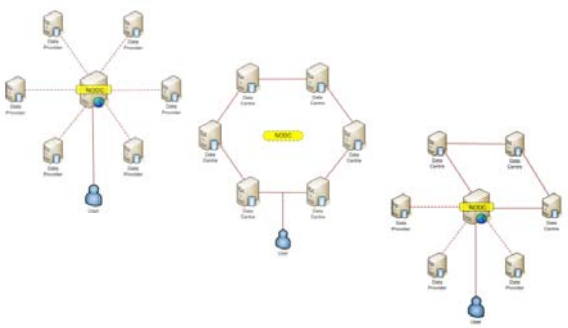
National NODC models



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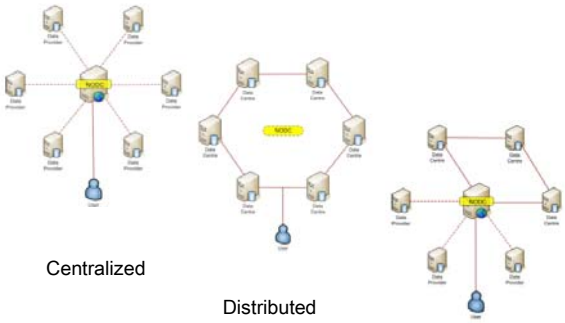
National NODC models



Centralized

Distributed

Mixed

National coordination

It is essential that, at the national level, all ocean observation and research is properly coordinated and a data management plan prepared as part of every initiative.

National Data and Information Management Coordination Committee

Key national outcomes

- Detecting and forecasting oceanic components of climate variability and change,
- Facilitating safe and efficient marine operations,
- Ensuring national security,
- Managing marine resources for sustainable use,
- Preserving and restoring healthy marine ecosystems,
- Mitigating natural hazards, and
- Support for the marine research community

IODE : also MIM

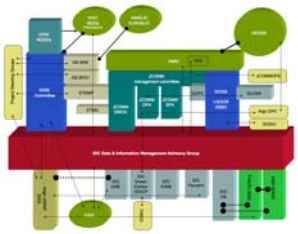
- Marine Information Management

- Bibliographic information management
- Factual information management
- Interface between DM and IM: metadata

Advance in science = use knowledge of others + add your own

IODE: international

- IOC Data and Information Management Strategy: IODE serves all IOC programmes and projects



Data policy

- Essential ingredient for international exchange of data and information
- IOC data policy:

Clause 1: *Member States* ***shall provide timely, free and unrestricted access to all data, associated metadata and products generated under the auspices of IOC programmes***

IODE capacity building

- Empowering developing member states to:
  - manage their own ocean data and information
  - develop necessary national products and services
  - have access to data and information held by other members of the IODE network
  - share data and information with other members of the IODE network

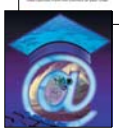
The ODIN strategy

- Linking training, equipment, operational support:
  - Regional context
  - Product and service oriented
  - Multi-stakeholder approach
- Strong focus on inter-personal and institutional networking
- Focus on data AND information

ODIN networks 2008

Training Tool: OceanTeacher

- Expert and training resource for marine data and information management
- Focus audience:
  - data/information managers
  - ocean researchers
  - University students
- Increasing focus on continuous professional development
- New service: OceanTeacher *Multimedia*
- www.oceanteacher.org



IODE project Office: Training Centre

- International Training Centre
- International Conference Centre
- Data/information services hub
- Expert Centre
- Based in Ostend, Belgium

- 2005-08: 500 students from 93 countries
- Approx. 15 events/year

IODE: the next decade

- Increase in distributed data centres
- OceanDataPortal(s) – interdisciplinary
- Individual data nodes
- On-the-fly product generation
- Global data archives
- Narrowing gap delayed-RT
- Data publishing
- ???

IODE: the next decade

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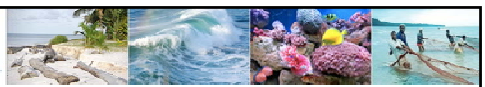

Thank you

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