Capacity Building Needs of Developing Countries: Observations from an IOC Survey

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Background

recognizes under § 160 and § 269-276

"the importance of building capacity of developing countries to benefit from the conservation and sustainable use of oceans and seas and their resources…"

and

"the need for transfer of technology" taking into account the Intergovernmental Oceanographic Commission's (IOC) **Criteria and Guidelines on the Transfer of Marine Technology (CGMT)**

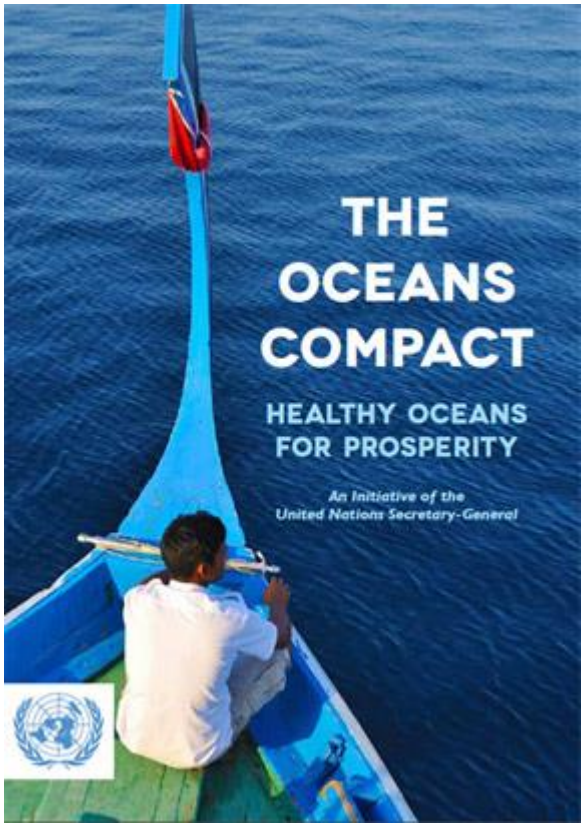
UNESCO-IOC's Voluntary Commitment

Building Global Capacity for Marine Sciences, Observation, and Transfer of Marine Technology

(in partnership with *Global* Ocean Forum Commitment on Capacity Building for Integrated Ocean Governance)

…aims at conducting **a global and regional assessment** of capacity development needs in the field of marine scientific research and ocean observation in developing nations and SIDS, leading to **the formulation and implementation of a global strategy** to implement these needs, through partnership with countries, donors, UN Agencies, global financial institutions, and the private sector

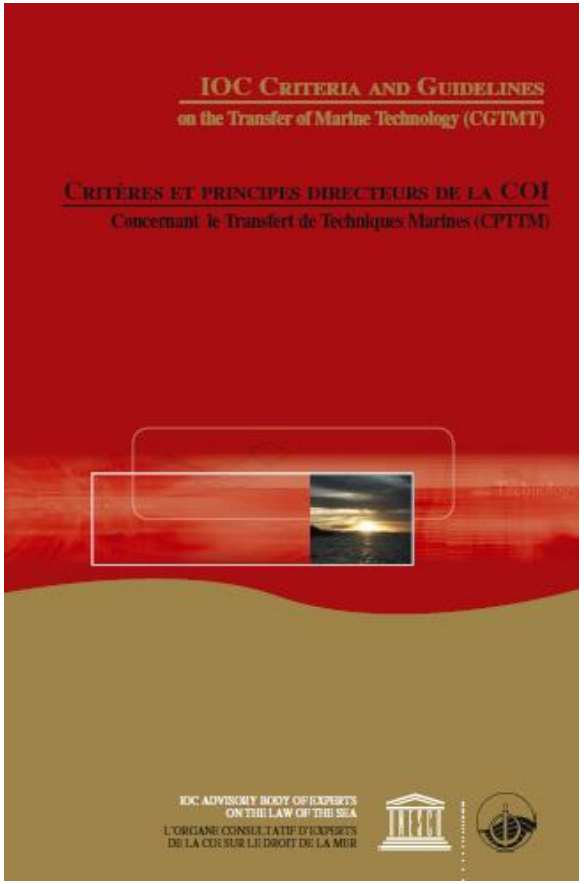
UN SG's Initiative



§ 3 on "Strengthening ocean knowledge and the management of oceans", and the "creation of enabling conditions for realizing the objectives of the Oceans Compact" through "increased capacity and technical assistance to member states that may require it".

.....the elaboration and implementation of a global strategy to build national and regional capacity in ocean affairs, including the ability of states to implement existing agreements and arrangements and use available tools, such as marine spatial planning, integrated coastal management assessments, monitoring and surveillance, to better address the cumulative impacts on the marine environment

IOC Criteria and Guidelines on the Transfer of Marine Technology (CGMT)



SCOPE: GTMT offers Member States Guidance for the implementation and the effective use of Part XIV of UNCLOS.

Marine Technology in CGTMT refers to instruments, equipment, vessels, processes and methodologies required to produce and use knowledge to improve the study and understanding of the nature and resources of the ocean and coastal areas.

IOC Criteria and Guidelines on the Transfer of Marine Technology (CGMT)

A. Scope
B. Criteria
   TMT should enable all parties concerned to benefit on an equitable basis, taking into account the following criteria
   i. Specific legal /institutional /financial / scientific schemes to facilitate TMT
   ii. On fair and reasonable terms and conditions
   iii. Needs and interests of developing states
   iv. Other legitimate interests(rights and duties of holders, suppliers and recipients of marine technology)
   v. Environmentally sound technologies
   vi. Taking advantage of new/existing/expected co-operation schemes
C. Guidelines for implementation
D. Final provision

IOC has been implementing Transfer of Marine Technology through targeted capacity development activities within its Global and Regional Programs and Actions

IOC Survey on CD Needs & Capabilities

…. first step towards fulfilling IOC's Voluntary Commitment

…. to gather information on existing national needs and capabilities in marine scientific research, observation, and data/information management among selected IOC Member States (e.g. LDCs, SIDS, new MS).

….conducted via an online questionnaire using IOC Action addressees

….supported by IOC Secretariat, Regional Sub-commissions & Centers, UNESCO National Commissions, Other qualified national and international experts, Networks of other intergovernmental organizations

….responses from Member States: Africa [9]; South America and Caribbean [7]; Asia and Pacific region [7]; Europe [3]; Mediterranean and Persian Gulf Region [6].

	Member State	Income	OHRLLS	
AFRICA				
1	Angola	LMI	LDC	1982
2	Benin	LI	LDC	1986
3	Congo DR(1)	LI	LDC	2010
4	Gabon(1)	UM		1977
5	The Gambia(1)	LI	LDC	1985
6	Madagaskar(1)	LI	LDC	1967
7	Namibia	UMI		2001
8	Nigeria	LMI		1973
9	Tanzania	LI		1969
S&C AMERICA				
10	Belize	LMI	SIDS	1995
11	Ecuador	UMI		1961
12	Honduras	LI		2012
13	Uruguay	UMI		1961
14	Jamaica	UMI	SIDS	1969
15	StKitts&Nevis	UMI	SIDS	2011
16	Surinam	UMI	SIDS	1977
South ASIA				
17	India	LMI		1961
18	Maledives	UMI	SIDS	1987
19	Sri Lanka	LMI		1977
PACIFIC				
20	Indonesia	LMI		1964
21	Fiji	LMI	SIDS	1974
22	Kiribati	LMI	SIDS*	2012
23	Tuvalu	LMI	SIDS*	2011
EUROPE				
24	Montenegro	UMI		2011
25	Croatia			1992
26	Slovenia			1994
GULF & MEDITERRANEAN				
27	Algeria	UMI		1965
28	Iran	UMI		1975
29	Jordan	UMI		1975
30	Kuwait			1974
31	Lebanon	UMI		1964
32	Turkey	UMI		1962

List of IOC Member States (MS) that responded to the survey. Included are LDCs, SIDS and new IOC MS as well as those MS requesting assistance in CD interventions

Next Steps

- May 2013: Discuss results at the Joint OHRLLS-IOC Meeting, New York
- June-July 2013: IOC Assembly, Paris
  Work through intra-sessional WG on CD
- Preparation of Draft CD Strategy & Implementation Plan with IOC Member States and other UN agencies

Observations from the Survey

- Perceived Urgency of CD Actions for IOC Programs

- Research & Education
- Training Programs
- Ocean Experts
- Marine Policy
- Ocean-related Conventions, Treaties and Processes
- Unique Problems of SIDS

- CD in Developing Countries: Outlook

- Needed CD Interventions & a comprehensive CD Strategy

- IOC Proposal for a Global Ocean Science Report

- Some Additional Documents of Interest

Perceived Urgency for CD Actions for IOC Programs

- Ocean Sciences and related needs for Education and Research (especially African States)

- Marine Monitoring; Management and Mapping of Ocean and Coastal space (Most States)

  here need for CD to assess and manage “non-climate risks” (e.g. from expanding exploration and exploitation of living and non-living resources including renewable energy, cumulative impact of land-based activities, especially pollution)

Research and Education

- **Ocean research or related services still weak**
- **Overdependence on project-oriented, short-term international support**
- **Higher education heavily dependent on the type & expertise of guest researchers**
- **Technical education in marine-related fields absent/inadequate**
- **Infrastructure weak, inadequate or where available needing upgrade**

Need: Strengthen Universities and Technical Institutions in human resources and infrastructure; Continuing education of locally available capacity through involvement in CD actions

Training Programs

- **Training programs mostly one-off; long term benefits doubted**
- **Inadequate infrastructure preventing training programs, where they are most needed.**
- **Lack of ship-based training programs (data collection/data handling)**

  (Current IOC-efforts on this like TTR and IODE rare and geographically restricted)

Needs: CD efforts in marine sciences, including the training programs, need to take a long term perspective. Explore the possibility of regional training Centers in new regions. Seek support from Member States with ship capabilities for ship time and explore ship-sharing mechanisms.

Ocean Experts

- **Lack of a critical mass of ocean experts (both scientific and technical)**
- **No mechanisms or incentives to retain built capacity and available experts**
- **Competition from non-marine sectors severe**

Needs: Support measures to retain built capacity in marine sectors. Incentives for continuous upgrade of professional knowledge & conduct CD actions aiming at this.

- **Existence of ocean experts among nationals of the surveyed countries who are active abroad**

Need: New initiatives to systematically take advantage of the pool of outside national experts for CD actions. Need to widely disseminate Information on national programs to tap this resource

Marine Policy

- **Ocean issues are generally sidelined by the relevant authorities**
- **Often no national coordinating agency**
- **Responsibility for Oceans spread across Ministries and Departments**

- National marine policy/marine development plan rare or absent (seldom, as part of national S&T and development strategy).
- Lack of /inadequate resource allocation for marine issues
- Inadequate local investments in human resources and infrastructure relevant to oceans and seas

Need: Measures to increase awareness of oceans and seas as a development factor (“blue economy”?); Provide advice on national and regional marine policy as well as support for the development of national strategy for oceans and coasts

Ocean-related Conventions, Treaties, Processes

- **Participation in most cases passive**
- **National Capacity for compliance weak or lacking**
- **Overall (nation-wide) awareness of processes & "rules of international engagement" not widely known**
- **No "trickle-down" effect for information from Assemblies and Meetings**

Need: Measures to raise awareness and knowledge on Conventions, Treaties & ongoing Processes; Go beyond the current channels of information dissemination; Direct engagement with national centers, universities and other groups involved in ocean-related activities.

Unique Problems of SIDS

- **SIDS are mostly new IOC Member States; awareness of the full range of IOC Programs slowly picking up**
- **Inadequate scientific support systems prevent full participation in IOC and similar Programs**
- **Unique problems and needs due to vastness of the ocean space, remoteness of outer islands (especially Pacific)**
- **Lack of vessels hinders access to outer islands (Pacific)**
- **Communication problems (Pacific)**
- **Potential exacerbation of "non-climate" risks from new and emerging initiatives for resource exploration/exploitation**

Needs: Explore engagement with SIDS through measures that go beyond regional programs; Direct engagement with Pacific SIDS could be an option. Develop CD Centers with special functions and funding status.

CD in Developing Countries: Outlook

- Affairs of Oceans and Seas – need to be treated as an emerging theme;
- Practice of Ocean Sciences & the capability to make the best of Transfer of Marine Technology are still inadequate;

- Efforts to develop of national strategies for the conservation and sustainable use of Oceans and Coasts
- Willingness to invest in human resources and infrastructure
- Aspiration for a more active role in Regular Processes and Assessments

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- New Opportunities to align CD Interventions and Marine Technology Transfer with National Priorities

- Potential to shift from CD “Assistance” to CD “Partnerships” in interventions & in North-South; South-South Cooperation

Needed CD Interventions & Comprehensive Strategy

1. Scientific Research and Technology
2. Marine/Ocean Policy Development and implementation
3. Education (scientific and technical) and Training
4. Outreach (e.g., Awareness of International Conventions, Treaties, Regular Processes)

- could form the four components of a proposed comprehensive global CD strategy, accompanied by

Appropriate monitoring and evaluation mechanisms to accommodate new developments marine research, technology, and education.

IOC-Proposal for a Global Ocean Science Report

Objective:

- Regular assessment (4-5 years) of capacity development needs in the field of marine research, observations and data/information management

- Global overview of the main developments and trends in marine technology, innovation and higher education.

Target: National authorities and international community to address gaps and for direct actions.

Additional documents of interest related to CD

http://www.scor-int.org/Capacity_Building/index.htm
(see Summit 1 & 2 Reports under Resources for International Organizations)

http://www.scor-int.org/Capacity_Building/Regional_Graduate_Network_of_Oceanography_for_Southern_Africa.pdf

http://ioc-unesco.org/index.php?option=com_oe&task=viewDocumentRecord&docID=4049
(a Presentation on „Research: an Effective Tool in Capacity Development“)

http://twas.ictp.it/publications/twas-reports/capbuildreport.pdf
(A Report of the Third World Academy of Sciences, „Building Scientific Capacity“)

National Research Council. *Increasing Capacity for Stewardship of Oceans and Coasts: A Priority for the 21st Century*. Washington, DC: The National Academies Press, 2008.

The preliminary observations in the presentation are based on responses to an online survey on CD that I conducted on behalf of the UNESCO-IOC. This is part of an ongoing process and a more detailed analysis is being carried out. The following people responded /contributed to the survey/discussions. Their efforts are gratefully acknowledged.

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