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INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)

INFORMATION DOCUMENT

TOWARDS A MEDIUM-TERM STRATEGY FOR 2014–2019
PERSPECTIVES FROM THE SECRETARIAT

Summary. This information document sets out, for the preliminary consideration of the IOC Assembly at its 26th session (Paris, 22 June–5 July 2011), a proposed Medium-Term Strategy and strategic objectives for the Intergovernmental Oceanographic Commission for the period 2014–2019. These objectives build on the four high-level objectives already set for the biennial period 2010–2011 as well as the two overarching priorities identified by UNESCO, namely gender and Africa. The proposed strategic objectives were developed at a two-day retreat of IOC staff held in Paris in December, 2010.

Introduction

1. This information document sets out, for the preliminary consideration of the IOC Assembly, a proposed Medium-Term Strategy and strategic objectives for the Intergovernmental Oceanographic Commission for the period 2014–2019. These objectives build on the four high-level objectives already set for the biennial period 2010–2011 as well as the two overarching priorities identified by UNESCO, namely gender and Africa.

2. The proposed strategic objectives were developed at a two-day retreat of IOC staff held in Paris in December, 2010. They take into account:

- The current state of oceanography and ocean science more generally;
- Experience to date in establishing tsunami warning systems around the globe;
- Experience over many years with the IOC's ongoing mission of capacity development, something which is now recognized as an element of all IOC programmes and activities;
- Previous thinking on the present state and future course of the IOC such as the 2008 *Report of the Working Group on the Future of IOC*[1] (IOC/FUTURE-I/3*);*
- Current fiscal realities in UNESCO and in Member States, notably the challenge faced by many governments in maintaining or increasing their core funding for UNESCO programmes, including the IOC;
- New opportunities for fundraising in support of IOC programmes and activities from other UN agencies, governments, foundations and the private sector.

3. These proposed strategic objectives are intended to inform the discussion at the 45th session of the IOC Executive Council in 2012 that will develop a Draft Medium-Term Strategy for 2014–2019 for approval by the 27th Assembly in 2013. In advancing them for consideration, the Secretariat is mindful that the strategic direction and priorities for the IOC are set by Member States and that the work of the Secretariat and its regional offices must serve, and be seen to serve, the interests and objectives of Member States. The objectives will have specific implications for Member States, for the work of the Secretariat in support of Member States, and for relationships between the IOC and other governmental and non-governmental bodies.

The strategic context

Ocean sustainable development

4. Our planet is presently facing major challenges: our life support systems and our survival are being threatened by new consumption patterns, overexploitation of natural resources and increased waste production. These are further exacerbated by adverse climatic processes which are becoming more and more frequent. However, it is now becoming increasingly evident that climate is largely controlled by oceanic processes. There is thus a need for enhanced ocean observation. Collection of ocean data, sharing of information, understanding oceanic processes and capacity building are of major importance for the sustainable development of the planet.

[1] This proposed Medium-Term Strategy is entirely consistent with the conclusions of the 2008 Working Group Report, notably with respect to maintaining the current mandate, strengthening the IOC's place within UNESCO, looking for ways to leverage additional financial resources, strengthening institutional cooperation within the UN system and outside it, and improving the involvement of Member States.

The IOC today

5. The Intergovernmental Oceanographic Commission is a body with a unique mandate and place within the international system. The Commission was created in 1960 as a UNESCO body mandated to:

> *"promote international cooperation and to coordinate programmes in research, services and capacity building, in order to learn more about the nature and resources of the ocean and coastal areas and to apply that knowledge for the improvement of management, sustainable development and protection of the marine environment and the decision-making process of its Member States[2]".*

6. The IOC Secretariat is currently structured around four programme areas – Ocean Observations and Services; Ocean Science; Tsunami Warning Systems; and Capacity Development. It is responsible for two intergovernmental Regional Sub-Commissions and four Regional Committees, and operates programme and project offices.

7. Today, the IOC includes 139 Member States, an increase of roughly 8 % over the last 10 years. However, there are still 38 small island States that are members of the UN and UNESCO, but not of the IOC *per se*.

8. The Commission is supported by a Secretariat headquartered in Paris. The Secretariat, headed by Executive Secretary Wendy Watson-Wright, has a staff of some 25 employees, together with another 34 professionals on limited term appointments or on contract. The professional staff largely hold higher degrees in oceanography or related ocean science disciplines such as meteorology or biology. Roughly half the employees are located in Paris. The others work in the regional programme and project offices located around the world.

9. Over the past 50 years, the IOC has led, coordinated and supported a complex, multilateral programme of oceanographic and related ocean research driven by the agreed objectives and priorities of IOC and UNESCO Member States. Among its more notable coordination achievements are:

- International Indian Ocean Expedition (1959–65)
- International Oceanographic Data Exchange (IODE) programme (1960)
- Pacific Tsunami Warning System (1965)
- Global Sea Level Observing System (GLOSS) (mind-eighties)
- World Ocean Circulation Experiment (WOCE) (1988–1998)
- World Climate Research Programme (WCRP) (1980, IOC joined as sponsor in 1993)
- Global Ocean Observing System (GOOS) (1990)
- Global Climate Observing System (GCOS) (1992)
- Global Bathymetric Chart of the Ocean (GEBCO) (1993)
- Other regional tsunami warning systems (2005)

Funding

10. Unlike some other similar bodies, the IOC was not created pursuant to a UN convention. That is to say, there is no binding international agreement which supports its mission and work programme. Among other things, this means that the IOC is funded simply as a UNESCO entity

[2] This is the IOC Mission Statement (IOC Statutes, Article 2 – Purpose).

with functional autonomy, and as a relatively small element (less than 1.5%) of the overall budget of UNESCO. Today, this means that the Commission receives core funding of some US$ 4.4 million per year from UNESCO, a figure that is augmented by a further US$ 6 million annually in extrabudgetary programme funding provided by Member States for specific programme purposes.

11. In short, this small organization with a global mandate in an area of central importance to the future of the world operates with a remarkably small budget. This constraint has important implications for the nature of the IOC's programming and for the size and nature of its regional presence.

Ocean science

12. Ocean science is in a transition period. Advances in both science and data collection technology and management have shifted the business of oceanography from primarily field study (i.e., deep water data collection) to include the development and refinement of large-scale models of the makeup and behaviour of the ocean and the interaction of the ocean with the climate system. Traditionally, data collection was confined largely to measurements of physical properties of the ocean but in recent years it has expanded to include the gathering of biological and chemical data that are being fed directly into large-scale scientific models.

13. The central place of the ocean in determining the Earth's climate, and thus in the broader issue of climate change, is now better understood. However, understanding and observing the global ocean still holds a key place in developing shorter-term and more regional climate forecasts, projections, and information to underpin climate services and adaptation action. The impacts of climate change are felt particularly by coastal and small island States, many of which are less developed countries.

14. As human society grows increasing vulnerable to coastal hazards, developing an understanding and improved warning systems is a growing priority, to which the IOC is responding.

15. The backbone of global scientific research on the oceans is the global ocean observing system (GOOS), a global voluntary collaborative system and a network of national and international programmes for observations, modelling and analysis of marine and ocean variables to support operational ocean services worldwide. The IOC plays a key role in coordinating the development of GOOS and in working to support its sustainability as a critical piece of global scientific infrastructure and to support growing ocean-related services, climate services, and ocean assessments to inform society on how to manage their relationship to the natural ocean environment.

16. The IOC has always had a responsibility to assist Member States in developing their capacity to deal with ocean-related responsibilities, and in particular to address issues related to natural coastal hazards. This responsibility has become more acute as threats to coastal and small island States have increased in recent years. Therefore, capacity development remains a central element of the IOC's strategic agenda into the future.

Challenges facing the IOC

17. As it considers its agenda for the medium term, the IOC must be conscious of a number of broader considerations bearing on both strategic orientation and objectives.

18. The IOC is a UNESCO body and must take full advantage of its place within the larger organization to advance its mission and strategic agenda.

19. *The IOC is one of the key players among many in the larger field of ocean related scientific investigation and programming*. Some UN bodies such as the WMO, FAO, IAEA, etc., have long-established programmes of research and scientific cooperation on matters related to the ocean

and climate. Some, such as WMO, have substantial funding associated with their respective mandates.

20. As an intergovernmental body, the IOC has a mandate to coordinate and to lead, but only in a very modest sense to implement and provide services. Its programmatic capacity is extremely limited, not only by resource constraints but also by the fact that the interests, capacities and priorities of Member States vary widely, as does their interest and engagement in the IOC.

- Relatively few States (chiefly a small number of developed countries including the US, Japan, Russian Federation, Canada, Australia, some European Member States, and Norway) have long-established major research programmes in oceanography. For these countries, the IOC is a useful forum for making bilateral and multilateral contacts, developing shared agendas and work programmes, creating mechanisms for cooperation, etc. A number of Member States (Brazil, China, India, Republic of Korea, and the Russian Federation) have re-emerging or growing oceanography programmes with global ambitions.

- Other Member States, including coastal ones and some developing countries, have begun to work together, through mechanisms created or supported by the IOC, on issues ranging from ocean observation, tsunami warning, harmful algal blooms and coastal erosion to coastal area management.

- Many Member States, including small island States, look to the IOC for various forms of capacity development, usually focused on immediate priorities and needs.

21. *Although staffed largely with highly respected scientists, the IOC is not a scientific research organization*. Rather it is an intergovernmental body with a mandate to coordinate, lead and support the work of governments and scientific institutions. One consequence is that the IOC has a relatively low profile with most members of the international oceanographic and ocean science community. A concerted programme of outreach to the scientific community is therefore essential to longer-term credibility and effectiveness.

22. As noted, the IOC's budget is constrained by the fact that it lacks the financial backing that would derive from a UN convention. Although it has been remarkably successful in raising extra budgetary funds from Member States for specific project purposes, the Commission must try to fulfil a global mandate on a budget of about US$ 10 million per year. Thus, as it pursues Member State support for the creation of a permanent legal framework to sustain its mission and activities, an active and coordinated programme of fundraising must also be an essential component of the Secretariat's work programme for the medium term.

Proposed strategic objectives for 2014–2019

23. Taking all of these considerations into account, the Secretariat proposes the following five strategic objectives for the IOC and the Secretariat over the medium term (2014–2019).

1. *Maintain, strengthen and integrate a global ocean observing system for monitoring and reporting on the state of the ocean (including biodiversity and coastal hazards).*

2. *Ensure national strategies for adapting to climate change include coastal and ocean components.*

3. *Strengthen capabilities of vulnerable coastal States to prepare for and respond to natural coastal hazards.*

4. *Foster regional cooperation in marine science with scientific institutions and governments, especially in areas where marine science is underdeveloped.*

5. *Enhance engagement of Member States through development of a legal framework to underpin IOC and its programmes.*

Implications for Member States

Generally:

24. The above five strategic objectives represent a balanced approach to the medium-term work of the IOC as an intergovernmental organization focused on scientific issues of global importance.

25. Objective 1 properly situates the global ocean observing system (GOOS) as the cornerstone of a relevant and sustainable programme for the IOC. GOOS is an essential global scientific system that requires an ever-stronger sense of ownership by the world community. It can no longer be regarded as the initiative of only a few Member States.

26. Objective 2 reflects recognition by the IOC that its work in relation to climate change must feed into the strategies and activities of Member States. Objective 3 explicitly recognizes the IOC's responsibility to work with Member States in developing their capacity to deal with natural coastal hazards, including the intergovernmental coordination of operational tsunami warning systems. This is also a specific example of the IOC's broader mission of capacity development, a responsibility which must find expression in all the programmes and activities of the Secretariat.

27. Objective 4 focuses on opportunities in areas of the world where cooperation among governments and scientific institutions, led and coordinated by the IOC, can be of great benefit both regionally and locally. During the last decades we saw the emerging of a group of mid-income countries with thriving economies and with well developed capacity in ocean sciences and oceanography. Those countries pose challenges for regional and technical cooperation with IOC, as they no longer want to be regarded as net importers of science and technology, but on the contrary, they would like to be perceived as active players in the development of science. So, we need new strategies to engage and cooperate with countries having emerging economies. The capacity already installed in those countries can be shared and transferred to neighboring developing States, through instruments such as South-South or Triangular cooperation, with great regional benefits, fostering sustainable development and increasing our understanding of key scientific questions related to the oceans.

28. The fifth objective is intended to put the strengthened IOC and its programmes as an intergovernmental mechanism to foster ocean management strategies based on good science, including through the Regular Process for Global Reporting and Assessment on the State of the Marine Environment, and enhance the capacity of nations to participate, monitor, and benefit from the effects of viable management strategies.

Specifically:

Draft objective 1: Integrated GOOS

- GOOS should not be seen as a stand-alone programme within IOC-UNESCO. Rather the need for a global unification of the objectives of operational oceanography should become a unifying theme of IOC activities. The development of the observation data infrastructure of marine science and marine management is an obvious necessity. But just as critical is the integration of science-driven research and management requirements in designing that infrastructure. The feed back of GOOS products to all parts of oceanography cannot be separated from the other IOC High Level Objectives. Ecosystem management, coastal and open ocean biome preservation, climate-change mitigation and adaptation strategies,

to name a few, are all evidence driven strategies which require globally integrated, unified and accepted support data. The IOC must act to strengthen the role of GOOS in the IOC and of the IOC in GOOS.

- The I-GOOS Board recommendations to strengthen and streamline GOOS governance by raising its provenance into the IOC Assembly will need to be acted upon.

- Member States will need to act both individually and with unified purpose to commit the necessary financial support to necessary activities for international coordination of the GOOS.

- Member States will also need to raise the visibility of IOC/GOOS as the expression of IOC's commitment to evidence-based ocean science and marine management.

Draft objective 2: Climate change

- Research: There is a need to improve knowledge by confronting models with observations, developing downscaling techniques drawing from local data, determining the limits of regional and decadal predictability and improving knowledge of the impacts of climate variability and change on natural and human systems.

- Information: Climate services and assessments of the impact of climate change on ocean ecosystem services must be developed, including determination of useful uncertainty information for decision-making in various sectors.

- Climate adaptation action needs to be mainstreamed into national development priorities.

Draft objective 3: Tsunami and coastal sea level hazards

- Provide intergovernmental coordination of the development of basin-wide, sustained detection and warning systems for coastal sea-level hazards (tsunamis, storm surges, extreme sea level events and climate change).

- Ensure the exchange of best practices in preparedness and awareness of coastal inundation hazards in closely working with Member States and facilitate regional training courses/workshops and self driven capacity development for relevant stakeholders in this context.

Draft objective 4: Fostering cooperation in science

- There is a broad need to strengthen links with the science community. Within IOC Member States, IOC national committees and delegations should endeavour to make presentations at various ocean-related scientific conferences on the work of the IOC.

- Efforts should also be made to link to other related scientific institutes and organizations that deal with, for example, climate, disaster reduction, polar science, etc., within and across Member States.

Draft objective 5: Enhancing the global ocean governance framework through shared knowledge base and capacity development

- Leadership will be needed in the coordination and implementation of UNCSD targets relevant to ocean-base knowledge.

- IOC Member States should come to an agreement on a mechanism for the exchange of ocean environmental data for decision-making.

- Capacity will need to be strengthened for some Member States to formulate ocean management plans and policies through technology transfer.

Implications for the IOC Secretariat

Generally:

29. For the Secretariat, these medium-term strategic objectives will require more and better links among sections and programmes. They will also call for a different prioritization of financial and human resources in support of existing activities, and for reducing or eliminating activities that do not support the agreed priorities. The Secretariat will need to develop ways of sharing resources to support activities targeting common goals, and to undertake joint programming, involving both IOC headquarters and the regional offices.

30. In the most general sense, driving and supporting this strategic agenda will require better communication and closer collaboration between headquarters and the IOC's regional offices, notably in terms of ensuring input from all IOC programmes into extra-budgetary proposals. There will also be a need to strengthen the IOC's regional presence through the creation of a regional office in Africa (to be co-located with the existing UNESCO office in Nairobi).

Specifically:

Objective 1: Integrated GOOS

- The Secretariat will need to support Member States in accessing and using data from GOOS for the regular reporting process on the state of the oceans.

- Sustained observation systems must be integrated into marine hazard systems, to mutually strengthen both – one system, multiple uses.

- Sustained observation systems will need to address marine assessment programmes to mutually strengthen both. Data requirements of marine assessment programmes should be passed directly to GOOS as the implementing body.

- Proposals by the Secretariat for marine management tools should provide requirements for GOOS products, addressing in particular the needs of developing countries' science infrastructure.

- Staff will need to connect essential ocean observation needs to existing and future conventions in order to strengthen the role of IOC and GOOS in climate-change and environmental protection.

Objective 2: Climate change

- Coordination of international climate research should have increasing focus on developing regional information and scenarios, and developing a better understanding of local impacts related to variable and changing ocean conditions.

- In a developing Global Framework for Climate Services, research and observations are two pillars that can be based on continuation of current programmes. IOC staff will need to guide programmes developing an information system and user interfaces, which will require capacity development and strong interfaces with partners.

- Using both a global and regionally-based implementation approach, IOC staff will need to be active in raising awareness among national offices responsible for Climate Change about the role of oceans and coastal science in developing their adaptation and mitigation

policies. This will involve promoting the development of Climate Change adaptation measures for coastal zones using the ecosystem-based adaptation and mitigation approach.

Objective 3: Tsunami and coastal sea level hazards

- The tsunami unit and parts of other units could be consolidated into a Coastal Hazards Section/Programme.
- At the least, relevant units of the secretariat would enhance collaboration to address coastal sea-level hazards.

Objective 4: Fostering cooperation in science

- IOC staff should work with Regional Seas and other Conventions as appropriate and as opportunities emerge. The IOC should sponsor relevant meetings depending on their contribution to this objective.
- There is also a broader need to strengthen links with the science community. This will involve a sustained programme of outreach under the direction of the Executive Secretary.

Objective 5: Enhancing the global ocean governance framework through shared knowledge base and capacity development

- Work to achieve this objective will be a key responsibility of the Secretariat, interacting closely with members of the Assembly and Member States. Progress will depend heavily on the willingness of Member States, and especially those with a strong commitment to oceanographic research and to the IOC, to lend their active support to this endeavour.

Cross-cutting priorities

People

31. At the strategic planning retreat in December, participants agreed that the foregoing strategic agenda would require a more active and systematic programme of people management in the Secretariat, including the development of a *human resources strategy* that would deal with issues such as:

- Proper definition of the skills required in professionals hired into the Secretariat;
- How to maintain and develop skills and expertise;
- Encouraging interchange between headquarters and regional offices, and making greater use of systematic secondments from Member States;
- Career path(s) for employees, and career development generally;
- Transition supports for people moving in and out of the Secretariat;
- Maintaining age, gender and geographic balance in the Secretariat;
- Encouraging rotation with other UN organizations and improving the speed of the staffing process.

Fundraising

32. Expanding the IOC's budget from its current level of about US$ 10 million per year (including regular programme and extrabudgetary resources) will require a systematic and sustained

programme of fundraising, based on a strategy that reflects both the strategic priorities of the IOC and the particular strengths and value-added of the IOC as an intergovernmental organization.

33. One challenge is, of course, developing a greater sense of ownership and engagement in the IOC's programme of work on the part of Member States. It will also be important to identify other potential sources of funding, including:

- National official development assistance (ODA) agencies;
- International and regional science networks;
- Global aid programmes;
- Regional development banks;
- Private foundations and the private sector.

34. The design and management of a sustained, comprehensive fundraising programme will require the development of a *fundraising strategy* led by a dedicated staff person in Paris working closely with the Executive Secretary.

Proposed strategic plan

Principles

35. The principles underpinning this proposed Medium-Term Strategy are those that have already been endorsed by the Executive Council and the Assembly, namely:

- An active and constructive role for the IOC within UNESCO.
- Stronger engagement with relevant UN agencies and with the international scientific community.
- More active engagement with Member States in all areas of IOC work – ocean observation, ocean science, natural coastal hazards and capacity development.

Strategic objectives

36. As previously noted, the proposed strategic objectives are to:

1. *Maintain, strengthen and integrate a global ocean observing system for monitoring and reporting on the state of the ocean (including biodiversity and coastal hazards).*

2. *Ensure national strategies for adapting to climate change include coastal and ocean components.*

3. *Strengthen capabilities of vulnerable coastal States to prepare for and respond to natural coastal hazards.*

4. *Foster regional cooperation in marine science with scientific institutions and governments, especially in areas where marine science is underdeveloped.*

5. *Enhance engagement of Member States through development of a legal framework to underpin IOC and its programmes.*

Measuring performance against these objectives

37. Each of the foregoing strategic objectives can be translated into specific programmatic activities of the Secretariat over the medium term, along with appropriate performance measures.

38. As is the case with any staff function, the success of the Secretariat in achieving the objectives set by the Assembly will depend to a significant degree on available resources and on the willingness of Member States to do their part. Particularly in the current fiscal environment, there are obvious constraints on the capacity of many Member States to deepen their engagement with the IOC and its staff. It is for this reason that the Strategy puts a particular onus on the IOC to address national needs and priorities identified by Member States themselves. Continuing resource constraints also explain why a *fundraising strategy* and *human resources strategy* are identified as essential underpinnings of the overall Medium-Term Strategy for the IOC.

Next steps

This document represents the contribution of the Secretariat to the development of a Draft Medium-Term Strategy for 2014–2019 by the 45th Executive Council (2012) for approval by the 27th Assembly (2013). It will be augmented and revised by contributions from ongoing and planned reviews and surveys (IOC/ABE-LOS, JCOMM, GOOS, and Regional Subsidiary Bodies) and external evaluations.

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