

**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)**
**Twenty-first Session of the IOC Committee on International Oceanographic
Data and Information Exchange (IODE-XXI)**
Liège, Belgium, 23-26 March 2011

**Reports of the NODCs, DNAs and Marine
Information Centres**

Secretariat (R. Gelfeld)

Summary of the document

*This document provides information on the inter-sessional activities of the **Reports of the NODCs, DNAs and Marine Information Centre***

Appendix A: Detailed analyses of the surveys for Data Management and Marine Information Management

DRAFT TEXT FOR INCLUSION IN THE SUMMARY REPORT

This Agenda item will be introduced by Mr. Robert Gelfeld, referring to Document IOC/IODE- XXI/9 (Report on activities of the NODCs and DNAs) and Document IOC/IODE-XIX/9 add (Full National Reports). The Secretariat revised the national report format to encompass an online survey (one for Data Management and one for Marine Information Management) as prepared for IODE-XX and was modified slightly to reflect changes during the intercessional period for 2009-2010. These surveys have allowed the Secretariat to obtain more quantitative information that would enable it to identify trends at the national level, as well as questions to identify capacity building and general IODE programme needs.

Mr. Gelfeld will report that for IODE-XXI fifty-seven National Reports were received for Data Management and thirty-one reports for Marine Information. This is a slight decrease from reports submitted for IODE-XX and continues a low trend of response for the online surveys. Member States will be encouraged to reflect on why there continues to be a limited response to the online surveys from the overall IODE community.

The majority of Member States reported that they are an IODE national oceanographic data centre (NODC) and are evenly split between being a centralized (single) and distributed (multiple) centre. An overwhelming number now provide their services online and the majority of Member States have a metadata catalogue. Most receive data from government and academic agencies and a smaller proportion also receive data from privately funded research institutions and/or from industry. Most Member States have a documented data strategy and apply the 'IOC Oceanographic Data Exchange

Policy'. This includes the timely, free and unrestricted international exchange of oceanographic data and associated metadata.

The Data Centres maintain a well-rounded staff and a majority of the Member States have seen an increase in budget and working staff or remained the same. Travel and training resources for most centres are critical to benefit from membership in IODE primarily through the contacts in other centres and the experience they share. There continues to be inconclusive information to analyze the annual operational budget for data centres (excluding staff cost) [converted into US Dollars], though the majority of Member States have indicated that it has remained the same or slightly increased. Member States will be encouraged to comment on how a revised series of budget questions should be included in future surveys.

The Member States continued to collect and archive all types of oceanographic data and more of these data are available online. The majority have a discovery metadata catalog and there continues the trend to make this available online. The range of data types handled by Member States include: physical, chemical, biological, marine meteorology and atmospheric data, geological and geophysical data and most data centres process delayed-mode data along with some real-time data. Access to real-time data and GIS are increasing throughout the community.

All of the Member States agreed that quality control should be a priority including reviewing and revising existing manuals where appropriate. A limited number of Member States continue to provide data to WDCs Oceanography. A clarification on the future of the WDCs will be discussed in ***IODE-XXI 9.5 Cooperation with ICSU***.

Member States continue to increase their role in IODE activities including participation in JCOMM/ETDMP, OBIS, OceanPortal, the Standards Project and other IODE programmes (i.e. GE-BICHE, GE-MIM, GODAR, GOSUD and MARINE XML). There is also active participation in SeaDataNet, CLIVAR and other major science programmes.

Results from the Marine Information survey show that a majority of information centres are research institution libraries have seen an increase in online users and number of requests for 2009-2010. There has been an increase in the digitization of data and the preservation of data. They participate fully in IODE Global activities and have increased their participation in OceanDocs and OceanExpert. There has been a dramatic increase and demand in online products.

The IODE capacity building strategy implemented through the ODINAFRICA and ODINCARSA projects had substantially increased the capacity of the participating countries as reflected in the national reports. The newer ODIN programmes (ODINCINDIO, ODINECET, ODINWESTPAC, and ODINBLACKSEA) continue to develop. Many Member States have hosted scientists and data managers from IODE data centres that have been mutually beneficial and have participated in IODE training courses.

Participation in OceanExpert is now at all time high. Member States are encouraged to increase their participation in IODE training through OceanTeacher by attending courses and volunteering experts for training.

Support for providing direct financial support to IODE in 2009-2010 through the IOC (confirmed) and sending a visiting expert to the IOC Project Office for IODE in 2009-2010 for a period of 3-12 months continue to be low due to the uncertain budget situations in throughout the IODE community. Member States are encouraged to provide extra-budgetary funds to support IODE activities.

Appendix A: Detailed analyses of the surveys for Data Management and Marine Information Management

Continuing with policy used for IODE-XX, and in line with recommendations by the IODE review and the IOC Assembly, the Secretariat revised the national report online surveys (one for Data Management and one for Marine Information Management) to obtain more quantitative information that would enable it to identify trends at the national level, as well as questions to identify capacity building and general IODE programme needs.

For IODE-XXI fifty-eight National Reports were received for Data Management and thirty-one reports for Marine Information. The National Reports are a unique opportunity for Member States to take stock of where they are and give other Member States the opportunity to view what others are doing. The new survey format allows the Secretariat to better analyze the results in a timely and simple manner. There continues to be low submission of reports from the Member States.

The majority of Member States in both data and marine information management have entered their information in OceanExpert (SECTION A: INSTITUTIONAL INFORMATION). Member States report that they are an IODE national oceanographic data centre and are evenly split between being a centralized (single) and distributed (multiple) centre. Marine Information centres remain research oriented.

The majority of the reporting Member States apply the 'IOC Oceanographic Data Exchange Policy' adopted as Resolution IOC-XXII-6 in 2003 (see http://www.iode.org/index.php?option=com_content&view=article&id=51:ioc-oceanographic-data-exchange-policy&catid=24&Itemid=95). This includes the timely, free and unrestricted international exchange of oceanographic data and associated metadata that is essential for the efficient acquisition, integration and use of ocean observations gathered by the countries of the world for a wide variety of purposes including the prediction of weather and climate, the operational forecasting of the marine environment, the preservation of life, the mitigation of human-induced changes in the marine and coastal environment, as well as for the advancement of scientific understanding that makes this possible. This policy should be reviewed by each Member State and should become part of their Oceanographic Data Policy.

The Data and Marine Information Centres maintain a well-rounded staff consisting of: scientific, technical, administrative, students and interns, IT Support Management, temporary support, and volunteers. The majority of the Member States have remained the same or in budget and staff working at their data centres, though some have seen an increase. Data and marine information centres are being asked to do more with less. Travel and training resources for most centres are critical for Member States to benefit from membership in IODE primarily through the contacts in other centres and the experience they share. They gain much from participation in the international projects and interactions with the scientific community who are usually also present at meetings.

There is inconclusive information to analyze the annual operational budget for the data and marine information centres (excluding staff cost) [converted into US Dollars], though the majority of Member States have indicated that it has remained the same or increased. A revised series of budget questions with input by Member States needs to be updated in future surveys.

Travel and training resources are critical for most centres to benefit from membership in IODE primarily through the contacts in other centres and the experience they can share. They gain much from participation in the international projects and interactions with the scientific community who are usually also present at meetings.

All Member States are participating in some level of national and international programmes/projects.

The Member States continue to collect and archive all types of oceanographic data. More of these data are available online. The range of data types handled by Member States showed that 92% of the existing data centres deal with physical oceanographic data, 78% also with chemical data, 72% with biological data, 55% with marine meteorology and atmospheric data, and 52% with geological and geophysical data. 65% of the data centres process delayed-mode data and 30% real-time data.

The majority of Member States maintain a metadata catalog - though the reports indicate that more of these need to be made available online.

All of the Member States agreed that quality control should be a priority including reviewing and revising existing manuals where appropriate. It was suggested that it would be worth revisiting Manuals and Guides No. 5 "Guide for establishing a National Oceanographic Data Centre" which was last revised 10 years ago. Providing guidelines and standards for data processing and management would improve skills and practices in the Member States that would in turn improve interoperability of data. Consolidation of a set of standards would benefit every Member of IODE. Two new standards have been adopted during the intercessional period: latitude/longitude and date/time. The JCOMM/ETDMP standards process is an important mechanism in the IODE data management scheme.

An overwhelming number of Member States now provide their services online and provide quality controlled delayed-mode data. IODE activities in which data centres participated in 2009 and/or 2010 has increased dramatically from 2007-2008 period. An overwhelming majority handle delayed mode data versus real-time and deal with data relevant to Argo, GLOSS and OBIS. Most data centres receive data from government and academic agencies and a smaller proportion (approximately one-third) also receive data from privately funded research institutions and/or from industry. In terms of services provided, most data centres receive data from government and academic agencies and a smaller proportion (approximately one-third) also receive data from privately funded research institutions and/or from industry. In terms of services provided, most provide quality controlled delayed-mode data. In addition, over half now offer data on-line. The Member States noted further that, especially in developing countries, the NODCs provided a bridge between the IOC programmes and national institutions. All Member States are participating in some level of national and international programmes/projects.

A limited number of Member States have not provided data to to WDCs Oceanography in 2009 and/or 2010. A clarification on the future of the WDCs will be discussed in ***IODE-XXI 9.5 Cooperation with ICSU.***

The IODE capacity building strategy implemented through the ODINAFRICA and ODINCARSA projects had substantially increased the capacity of the participating countries as reflected in the national reports. The newer ODIN programmes (ODINCINDIO, ODINECET, ODINWESTPAC, and ODINBLACKSEA) should continue to develop.

Many Member States have hosted scientists and data managers from IODE data centres that have been mutually beneficial. Each centre benefits from membership in IODE through communication with the contacts in other centres and the experiences they share. Each Member State has gained much from participation in the international projects and interactions with the scientific community who are usually also present at meetings. IODE strengthens the role of its data centres in Member States in the long term in contrast to project data centres, which are only active for a short period.

Results from the Marine Information survey show that a majority are research institution libraries and have seen an increase in online users and number of requests for 2009-2010. There has been an increase in the digitization and the preservation of data. They are engaged fully in IODE Global activities and have increased their participation in OceanDocs and OceanExpert. There has been a dramatic increase and demand in online products. Marine information managers continue to develop activities in e-repository and e-journals.

Support for providing direct financial support to IODE in 2009-2010 through the IOC (confirmed) continues to be low due to the uncertain budget situations in the IODE community. Member States did not utilize sending a visiting expert to the IOC Project Office for IODE in 2009-2010 for a period of 3-12 months. Budget concerns continue to be of great concern. Member States are encouraged to provide extra-budgetary funds to support IODE activities.

The full reports submitted by the IODE National Coordinators for oceanographic data management and IODE National Coordinators for marine information management can be viewed at:

DM:

http://www.surveymonkey.com/sr.aspx?sm=8yCyr6bmXNDSmpEIl1Km60btp7xWXmiGVb8aMS7mbs_3d

IM:

http://www.surveymonkey.com/sr.aspx?sm=YhE98sHbKjQNDc2QKoLhTmTYnB2RzVHQhZWpFIbhFWw_3d

A password is required to access the survey results. This can be obtained by emailing p.pissierssens@unesco.org

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