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IODE NATIONAL REPORT ON OCEANOGRAPHIC DATA MANAGEMENT AND EXCHANGE FOR
THE INDIAN NODC
IODE NATIONAL REPORT ON OCEANOGRAPHIC DATA MANAGEMENT AND EXCHANGE FOR INDIAN NODC

1. **Name of Data Center:**
   Indian Oceanographic Data Center (IODC)

2. **National IODE Coordinator:**
   Name: J.S. Sarupria
   Address: Head Data & Information Division
   National Institute of Oceanography,
   Dona Paula, Goa, Pin 403 004 INDIA
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3. **Data Center Address (if different from 1)**
   Same as at Sr. No. 2

4. **Data Center URL:**
   Institute’s URL is [http://www.indian-ocean.org/](http://www.indian-ocean.org/)

5. **IODE Data Center Designation Date:**
   NODC was established in 1964 at the National Institute of oceanography (NIO), Goa, India NIO. NIO is a premier institute for oceanographic research and development.

6. **Description of national data flow:**
   The Indian Oceanographic Data Centre (IODC) assists national and international users in developing and enlarging their competence in the field of marine science. IODC play a dual role, one by dissemination of data/information to the user and the other to assist the data manger in processing, validation, reformatting different types of data generated from the Indian Ocean region. Main functions of IODC are:

   - To acquire marine data and information for the Indian Ocean
   - To reformat, perform quality control check on data
   - To develop/update marine databases for the Indian Ocean
   - To develop value-added data/information products
   - To provide data/information service to users community
   - To conduct training/workshop for marine data/information management

6.1 **Metadata management:**
   Metadata information are manage at IODC in three levels, these are:
   - Metadata for report level
   - Metadata for cruise level
   - Metadata for station level/location
6.2 Data tracking:
Data flow at IODC are monitor through the following documents:
- National oceanographic program
- Cruise planning documents
- Cruise report
- Institutes and individual contacts
- Scientific publication

6.3 Data tracking at international level are:
- Global oceanographic project/programs
- IOC/IODE system for DNA/NODC/RNODC/WDC system
- Institutes/Project web sites
- Public domain research documents

7. What is the structure of marine data management in your country:

In order to streamline the marine data/information management activities in India the Dept. of Ocean Development (DOD) has been set up the following National Marine Data Centres (NMDCs):

<table>
<thead>
<tr>
<th>Name of the NMDC/Institute</th>
<th>Type of Data Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>IODC, National Institute of Oceanography, Goa Data Centre</td>
<td>Oceanographic &amp; Marine Geophysical information/data (Delay mode)</td>
</tr>
<tr>
<td>Indian National Centre for Ocean Information Services (INCOIS). Hyderabad Data Centre</td>
<td>Nearly real time Oceanographic information/data</td>
</tr>
<tr>
<td>Indian Meteorological Dept. Pune</td>
<td>Surface Meteorological and Atmospheric information/data</td>
</tr>
<tr>
<td>Geological Survey of India, Kolkutta Survey of India, Dehradun Naval Hydrographic office, Dehradun Fishery Survey of India Mumbai</td>
<td>Marine Geological information/data Tidal level information/data Bathymetry and hydrographic charts Offshore Fisheries information/data</td>
</tr>
<tr>
<td>Data centre National Remote Sensing Agency Hyderabad</td>
<td>Remote Sensing information/data</td>
</tr>
</tbody>
</table>
8. What are the strengths and problems of the present arrangements nationally, regionally and internationally?:

Strengths:

- Trained experience Manpower in data management activities
- Organized data bases for oceanographic parameters for the Indian Ocean
- National facility where one can submit his/her data set for future use.
- Providing processed data (at standard level, quality control, computed ) to the individuals as per their requirement for enhancing the oceanographic research works
- Providing input to the Scientists working on Model Studies, Assimilation, Techniques and Reanalysis works.
- Rescuing the data/information from original records/published material
- Providing the data/information service to the industry through the consultancy/sponsor projects
- Providing specific services to the research students from universities/institutes for their Ph.d/ M.Phil/project works
- Providing support /training in data/information management activities in the Indian Ocean region
- Handled the data/information request about 260 nos. and provided the data to the 114 users in last five years.
- Using latest technology for the data/information management

Problem:

- Our experience shows that we are loosing about 40% of the data, collected under the various institutional/national/international projects/programs.

9. What improvements could be made nationally, regionally and internationally?:

- In order to maximize the archives, data/information management activities are to be linked to with project work
- Project data management activities are to be introduced in national data centre.
- Scientists and data mangers should work more closely in a project mode.

10. What future national activities are planned?:

- To develop meta data directory for the Indian coastal region.
- To enhance the oceanographic data/information network at national level
- To participate in the national and international ocean observations programs in the Indian ocean.
- To develop an Atlas on Temperature for the Northern Indian Ocean
- To develop coastal oceanographic databases for the countries bordering Indian Ocean.
11. What national, regional or international projects is your NODC involved in (both IODE and non-IODE). Examples: Argo, GTSP, EDMED, EDIOS, SeaSearch, GODAR,...
Both IODE and non IODE Projects.
IODE Project: ODINCINDIO, IOGOOS, MIIS
Non IODE Projects: BOBPS, etc.