

## REPORT ON REGIONAL GOOS ACTIVITIES (year 2002)

### 1. NAME OF REGIONAL GROUP

Please list group name in full and acronym here:

***Indian Ocean Global Ocean Observing System (IOGOOS) established on November 5, 2002.***

- *Member-Organizations (presently):*
  - (i) Australian Bureau of Meteorology, Australia
  - (ii) CSIRO-Marine Research, Australia
  - (iii) Curtin University, Australia
  - (iv) Indian National centre for Ocean Information Services (INCOIS), India
  - (v) National Institute of Oceanography, India
  - (vi) National Institute of Ocean Technology, India
  - (vii) Iranian National Centre for Oceanography, Islamic Republic of Iran
  - (viii) Kenya Marine and Fisheries Research Institute, Kenya
  - (ix) University of La Reunion, La Reunion
  - (x) Institut Halieutique & des Sciences Marine, University of Toliara, Madagascar
  - (xi) Mauritius Oceanography Institute, Republic of Mauritius
  - (xii) INAHINA, Mozambique
  - (xiii) Interim National Committee for IOGOOS, South Africa
  - (xiv) Institute for Aquatic Biodiversity, South Africa
  - (xv) University of Port Elizabeth, South Africa
  - (xvi) University of Natal, South Africa
  - (xvii) National Aquatic Resources Research and Development Agency, Sri Lanka
- *Associate Member-Organizations (presently)*
  - (i) IOC Perth Regional Programme Office, Australia
  - (ii) NOAA, Office of Global Programmes, USA
- *A few more Organizations (from Bangladesh, India and Seychelles) as well as SACEP are expected to become Members shortly.*
- *Active Interactions are underway with Organizations from Comoros Malaysia, Indonesia, Pakistan, Tanzania, Thailand, Myanmar, Maldives, Qatar, Oman and Yemen. Contacts in Singapore and Somalia are yet to be established.*

### 2. CONTACTS, COORDINATION

Please list your principal contact points here: name, function, address, telephone, fax, e-mail

#### 2.1. PRINCIPAL CONTACT POINTS

Dr. K. Radhakrishnan (Chairman, IOGOOS)  
Director, Indian National Centre for Ocean Information Services  
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Mr. Tummala Srinivasa Kumar (Secretary, IOGOOS)  
Scientist, Indian National Centre for Ocean Information Services  
Plot # 3, Nandagiri Hills Layout, Jubilee Hills  
Hyderabad, AP, India – 500033  
Tel: +91 40 3553542  
Fax: +91 40 3545994  
Email: [iogoos@incois.gov.in](mailto:iogoos@incois.gov.in)

## **2.2 MECHANISM FOR COORDINATION OF GOOS**

*Please describe in brief the mechanisms you use for coordination within your regional group. Include the Web address for the group (if any)*

### **2.2.1 Indian Ocean Conference November 4-9, 2002**

The Indian Ocean Conference was held at Mauritius during November 4-9, 2002. 165 participants from 24 countries (Australia, Bangladesh, Comoros, France, India, Iran, Japan, Kenya, Madagascar, Malaysia, Mauritius, Mozambique, Netherlands, New Zealand, Norway, Qatar, Reunion, Seychelles, Sri Lanka, South Africa, Thailand, Tanzania, USA and UK) and 8 organizations (IOC, WMO, GCOS, POGO, JICA, Indian Ocean Commission, SACEP and ONR-IFO) participated in the Conference.

The Conference addressed issues of common concern for the Indian Ocean Region and recommended taking up of specific projects and capacity building in the areas of:

- (i) Ocean & Climate [e.g (a) Risk Analysis for Climate Variability such as Monsoons, (b) Storm Surge Disaster Management, and (c) Observational needs for basin-wide structure of temperature, salinity, and currents ]and
- (ii) Coastal Ocean [e.g increased and coordinated study and monitoring of (a) coastal erosion, (b) habitat and biodiversity, and (c) fisheries, with the aim of forecasting changes and of providing the best possible data products to the national authorities, managers and scientific communities].

Further, the requirements for Data Management and Capacity building were addressed.

### **2.2.2 IOGOOS**

Nineteen organizations of 10 Indian Ocean countries signed a Memorandum of Understanding to create and actively participate in a Regional Alliance for IOGOOS, signed on 5 November 2002. This Memorandum of Understanding is one of the strongest instruments of cooperation and collaboration in the context of the oceanographic development of the region. IOGOOS is intended to elevate the Indian Ocean from one of the least studied to one of the most studied of the world's major oceans, with a real emphasis on the link between societal and scientific issues.

- IOGOOS will hold Annual Meetings. The Chairperson and four Officers, providing a balanced representation of the region, have the responsibility for all IOGOOS activities between annual meetings IOGOOS. The Head of IOC Regional Programme Office in Perth, as well as the Chairpersons of IOCINCWIO and IOCINDIO will be invited to attend the IOGOOS Officers' Meetings. Subsidiary bodies such as working groups will be created as necessary by IOGOOS.
- Secretariat is hosted by a Member-Organization and will be rotated after six years. Secretary, IOGOOS has the responsibility for ensuring satisfactory implementation of all decisions by the Annual Meetings and between the annual meetings by the Officers, for the IOGOOS Office and for the management of IOGOOS Funds.
- The First Annual Meeting of IOGOOS was held on November 08, 2002 at Mauritius, during the Indian Ocean Conference.
  - For the first term of two years, the following were elected/ unanimously:
    - Chairman: Dr.K.Radhakrishnan (India)
    - Officers
      - Dr. Neville Smith (Australia) for Eastern Indian Ocean
      - Dr. Johnson Kazungu (Kenya) for East Africa
      - Mr. Harry Ganoo (Mauritius) for Indian Ocean Islands
      - Prof. A. T. Forbes (South Africa) for Southern Africa
  - INCOIS was chosen to host the Secretariat of IOGOOS for a period of six years and Mr. Tummala Srinivasa Kumar of INCOIS was chosen as the Secretary of IOGOOS for the same period.
  - A strategy paper for IOGOOS was adopted.

- The main mode of communication is through e-mail and IOGOOS Website. ([www.incois.gov.in/iogoos](http://www.incois.gov.in/iogoos))

### **2.3 COORDINATION WITH OTHER GOOS BODIES**

*Please describe in brief how you coordinate with the wider GOOS organization*

During the Indian Ocean Conference, the representatives of WAGOOS, IOGOOS, SEAGOOS and GOOS Africa had interactions and reiterated the need for a mechanism for continued interactions.

## **3. REGIONAL CONTRIBUTIONS TO GOOS IMPLEMENTATION**

*Please list your inputs in the 4 categories below. Please differentiate between actual (present) and future (planned) contributions. And list the agencies and countries involved in each activity.*

### **3.1 CONTRIBUTIONS TO CORE ELEMENTS OF THE OBSERVING SYSTEM**

*For example include physical, chemical or biological observations from fixed buoys, drifting buoys, tide gauges, coastal met stations, coastal or other HF radar stations, satellites, ships (including regular/routine observations from research ships, ships of opportunity, ferries), coastal (littoral and/or reef) stations, and time series stations.*

Several countries in this region have their programmes for satellite based and insitu observation systems. An inventory of such systems and the regional contribution to GOOS has to be made by the recently established IOGOOS.

### **3.2 CONTRIBUTIONS TO GOOS PILOT PROJECTS**

*For example, include contributions to international GOOS Pilot Projects at the global scale (like GODAE or Argo), or at the regional scale (like PIRATA in the equatorial Atlantic, TAO/TRITON in the equatorial Pacific, or QUIJOTE in the southwestern Atlantic etc). Note duration, funding, institutions involved.*

Several Countries in this region are contributing to the GOOS pilot projects including Argo and GODAE. An inventory of such systems and the regional contribution to GOOS has to be made by the recently established IOGOOS.

### **3.3 CONTRIBUTIONS TO GOOS-RELATED RESEARCH**

*This means topics not already mentioned above; e.g. the Japanese research in support of NEAR-GOOS; satellite remote sensing carried out through research programmes; etc.*

An inventory of the research activities is to be made by the newly established IOGOOS.

### **3.4 OTHER CONTRIBUTIONS TO GOOS**

*For example: Contributions to the data and information management infrastructure (data centres, product centers, servers etc); Provision of data to the GTS; Provision of data and /or product information on the Internet; Main ocean services and products and their sources; Observations other than those listed above (eg Tide Gauges other than GLOSS)*

## **4. CAPACITY BUILDING IN SUPPORT OF GOOS OR GOOS-RELATED RESEARCH**

*Please list the ways in which your group contributes to awareness-raising, education, training, infrastructure building, equipment installation and/or maintenance, and technology transfer so as to build the capacity of developing countries to participate in, contribute to, and benefit from GOOS. Also list your capacity building needs, if any.*

## **5. IMPEDIMENTS TO PROGRESS**

*Please list problems encountered (e.g. fiscal restraints, government awareness, lack of infrastructure for observations, lack of human resources, lack of expertise, legal constraints to observations, data exchange, etc)*

**6. LESSONS LEARNED**

*Note problems overcome, etc*

**7. SUCCESS STORY**

**8. USEFUL EXAMPLES INDICATING THE BENEFITS OF GOOS AT REGIONAL LEVEL**

**9. INDICATIONS OF FINANCIAL CONTRIBUTION TO GOOS**

***9.1 INVESTMENT IN REGIONAL ACTIVITIES***

***9.2 INVESTMENT IN REGIONAL COORDINATION***