

## INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

### INFORMATION DOCUMENT

# INTERNATIONAL INDIAN OCEAN EXPEDITION 50<sup>TH</sup> ANNIVERSARY INITIATIVE (IIOE-2)

Summary. A voluntary community of practice has been formed to convert into reality a concept to celebrate the 50<sup>th</sup> anniversary of the International Indian Ocean Expedition (IIOE) of the 1960s. It has been harnessed under the auspices of the Indian Ocean Global Ocean Observing System (IOGOOS) Regional Alliance, the Scientific Committee on Ocean Research (SCOR) and the Perth Regional Programme Office (PRPO) in support of IOC/UNESCO. The group met for the first time as the "IIOE-2 Reference Group", in India, 14–15 May 2013 under hosting by the IOGOOS Secretariat based at INCOIS, Ministry of Earth Sciences, India; cash and secretariat support from the IOC Perth Regional Programme Office; cash support from IMBER¹; and with essentially all participants' attendances resourced by their own host institutions. The meeting was co-chaired by Nick D'Adamo (PRPO) and Raleigh Hood (SIBER SSC²), who were tasked by IOGOOS in 2012 to coordinate the formation and 1<sup>st</sup> meeting of a Reference Group. They worked closely with SCOR's President Peter Burkill and Executive Director Ed Urban who introduced the concept of an IIOE-2 to the IMBER SSC¹ meeting of 2011.

The meeting resulted in a formative exploration of the merits, possibilities and requirements to achieve a truly collaborative and societally relevant IIOE-2. It discussed the possibilities of the ocean observing community coming together in a collegial, integrated manner again, to explore the yet to be uncovered oceanic and coupled climatic phenomena of the Indian Ocean (e.g. across the physical, biological, chemical, geological and bathymetric spheres), to enhance our understanding of known processes thereof, to provide an exciting platform of knowledge transfer and capacity building, and to raise the regional and global awareness and focus on the importance of the Indian Ocean's ocean/climate to its societal constituencies and to neighbouring regions and the globe through ocean-climate teleconnections.

#### Brief history of the original IIOE of the 1960s

The IIOE was coordinated by the Scientific Committee on Oceanic Research (SCOR) (before 1962) and by IOC thereafter to 1965, and was one of the greatest early international interdisciplinary oceanographic research efforts, bringing to bear the facilities of over 45 research vessels, under 14 different flags to explore through pioneering voyages of discovery the ecological mysteries of the Indian ocean (http://scor-int.org/IIOE\_History.htm). The IIOE brought a focus to the importance of the Indian Ocean in its own right, giving tangible insight into the oceanic and coupled climatic phenomena which impact profoundly on the Indian Ocean rim countries and islands. It also began to illuminate the Indian Ocean's far reaching influences on surrounding regions and the globe in general through tele-connected ocean/climate processes. It brought the attention of the scientific world's interest to the Indian Ocean in a coordinated collaborative manner for the first time. It embraced marine physical and chemical oceanography, meteorology, biology, geology and geophysics. IIOE had a full time coordinator with operational support, garnering the engagement of a multitude of collaborating nations. IIOE included Capacity Building as one key objective and led to the birth of the Indian National Institute of Oceanography in Goa and the Meteorology Centre in Bombay. IIOE adopted the Indian Ocean Standard Net for zooplankton measurements, led to the establishment of some 15 SCOR/UNESCO Reference Stations and generally began to unlock the idiosyncrasies of the Indian Ocean's bio-physical traits.

#### Background to the formation and activities of the IIOE-2 Reference Group during 2012/13

The inaugural IIOE-2 Reference Group meeting brought together a formative community that examined the feasibility of an IIOE-2 and specific objectives that should define such an initiative as one that could significantly advance the understanding of the Indian Ocean in its own right and in its influence and tele-connections to the oceanic and climatic systems of the globe generally. It explored how a truly basin-wide coordination of effort for the Indian Ocean could build on the original IIOE, and ocean research and application programmes that have been mounted since then (e.g. Joint Global Ocean Flux Study, World Ocean Circulation Experiment etc.), to address issues that can be tackled only by a collaborative regional/global effort, as a complement to sub-regional efforts that are both underway and planned. It identified a number of cruises, symposia and capacity building plans already committed to by constituents and that will be willingly implemented under the spirit and 'flag' of an IIOE-2, including prospective activities under India's own National Organising Committee that has been established to celebrate the 50<sup>th</sup> anniversary of IIOE. The Reference Group meeting canvassed wide and open participation from the Indian Ocean rim and Island nations and beyond. There were minimal resources available for the meeting (with a base cash budget provided by the PRPO and IMBER, hosting by INCOIS and participation essentially achieved through self-funding by participants). It achieved the attendance and/or input from participants deriving from many entities, including the IOC Secretariat, SCOR, IMBER, IOGOOS, SIBER, IOP<sup>2</sup>, Climate and Variability project of the World Climate Research Program, Global Ocean Ship-Board Hydrographic Investigations Program, World Ocean Council, India, USA, UK, Saudi Arabia, China, Japan, Indonesia, South Africa, Thailand, Australia and Venezuela and informed the IOC's Sub-Commissions for Africa and the Adjacent Island States (IOC-AFRICA) and the Western Pacific (IOC-WESTPAC) through their respective secretariats. But the need to continue to work towards a wider spectrum of stakeholder involvement is fully acknowledged as a high priority. The Group resolved to continue to bring their best capacities to progress the initiative, by deriving from many ocean observing efforts, and Indian Ocean rim countries and beyond. The group, whilst being highly engaged and agreed in spirit for the concept and willing to continue, now requires broadening and secretariat type support to cover the required spectrum of representation and planning to achieve the aspirations of an IIOE-2. The group will produce an IIOE-2 Reference Group 1st meeting report, to act as a basis for the development of a strategic science and implementation plan for an IIOE-2, which will identify the specific objectives for an IIOE-2, across the spheres of ocean and coupled climate science, related capacity building and generally align with current and proposed IOC High Level Objectives and IOC's vision for 2014-2021. The plan will advise on the resourcing that would be required to achieve a balanced, exciting and meaningful

'expedition', with a timetable considered to comprise 2013–14 for planning and 2015–20 for IIOE-2 implementation and reporting.

#### **Action proposed**

This initiative will be presented to the IOC Assembly at its 27<sup>th</sup> session (Paris, 26 June–5 July 2013). The Assembly will be asked to note the formative work of the IIOE-2 Reference Group, endorse that effort as one that presents itself as an initiative worthy of continuance, and recognise that in order to achieve the full possibilities and benefits for a regionally (perhaps globally) coordinated effort, an underpinning secretariat resource is required. The Assembly will be further asked to call on Member States to support this effort to the best of their capacities, and request the IOC Secretariat to support the Reference Group and help coordinate the overall effort to the best of its capacities, with a view to facilitating the development of an IIOE-2 Strategic Science and Implementation Plan, that provides alignment with the IOC's High level Objectives and forward vision, to be brought to the 47<sup>th</sup> session of the Executive Council in 2014, together with a Draft Resolution and associated financial implications, to formalise IOC's involvement in an IIOE-2 implemented for the period 2015–2020.

- 1 IMBER SSC = Integrated Marine Biogeochemistry and Ecosystem Research Scientific Steering Committee. IMBER is an international programme under the auspices of SCOR and IGBP.
- 2 SIBER SSC = Sustained Indian Ocean Biogeochemistry and Ecosystem Research Scientific Steering Committee. SIBER is an international programme under the auspices IOGOOS/IMBER and works collaboratively with the Indian Ocean Panel (IOP) of IOGOOS/CLIVAR. SIBER and IOP are both supported by the Indian Ocean Observing System Resources Forum (IRF) constituted under the auspices of IOGOOS.

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