

**SIBER**

Sustained Indian Ocean Biogeochemistry  
and Ecosystem Research

## 14<sup>th</sup> Scientific Steering Committee Meeting (Virtual)

10.30-12.30 UTC 24<sup>th</sup> July 2023

### Report

**The 14<sup>th</sup> meeting of the SIBER Scientific Steering Committee Meeting was convened on 24<sup>th</sup> July 2023 in virtual mode.**

**SIBER SSC Members:** Dr Gregory Cowie (Chair), Prof Raleigh Hood (Chair), Dr Jenny Huggett, Dr Francis Marsac, Prof P N Vinayachandran, Dr Ocky Radjasa, Dr Dwi Susanto

**SIBER IPO Staff:** Dr Aneesh Lotliker

### The key agenda/discussion points:

1. Updates from SC members re. IO-related activities.
2. Update (Cowie) re. IMBeR SC meeting in April including proposed synthetic activities across regional programmes and working groups.
3. Update on extended IIOE-2 and meeting in Hyderabad.
4. Other matters – including further additions to SIBER SC

### Records of the discussion

#### *1. Updates from SC members re. IO-related activities*

Dr Gregory Cowie welcomed all the meeting participants and briefed on the agenda which was unanimously agreed by all the participants.

Dr Cowie explained that the meeting was called for a catch-up, especially for those who couldn't attend the previous meeting in Perth in February 2023. He mentioned that there was also an IMBER meeting in Paris in April 2023, which served as an opportunity to update on developments since then. He referred to the request given in Perth to start thinking about synthetic activities across IMBeR working groups and regional programs, and the meeting in Paris followed up on those suggestions. Dr Cowie also shared information about an exciting South African project involving Mike Roberts and Mozambique, focusing on the Bazaruto Archipelago. The project combines small boat-based coastal work with offshore research on eddies, including biogeochemistry and physics.

Prof Reyleigh Hool informed the group about a special session led by Dr Yukio Masumoto in Berlin during the IIOE related meeting. The session went well, with a focus on biogeochemistry and physics related to the Indian Ocean.

Dr Francis Marsac emphasizes the need to connect better with social sciences to address the sustainability, bridging natural and social sciences to improve human well-being in the countries around the Indian Ocean. He mentions his participation in a task force focused on regional ocean governance, which is managed by the Nairobi Convention. The task force aims to develop guidelines that are science-based to enhance ocean governance. He highlighted the recent meeting in Zanzibar, where over 70 participants engaged in practical exercises to craft chapters for a document related to regional ocean governance. The document is expected to be delivered by December 2023. He mentioned the upcoming meetings in July and August 2024, which focus on the science-policy interface in regional ocean governance. These meetings aim to merge the efforts of scientists, researchers, and policymakers. Dr Francis also emphasized the importance of advocating for the work of scientists, especially in the context of ocean governance and sustainability efforts. Scientists need to ensure that their research informs policy decisions effectively.

Dr Francis also discussed an Indian Ocean expedition conducted by the Monaco Exploration in February 2023, with data being processed for a special issue of research articles. This special issue covers various aspects of the expedition, including physics, biochemistry, plankton, and biodiversity. The target publication date for this special issue is December 2024.

Dr Jenny Huggett reported on a recent cruise across the Agulhas Current. She discussed the expanded measurements, including microorganisms, plankton, physics, nutrients, and isotopes. Dr Jenny also mentioned ongoing work on zooplankton metabarcoding and its potential for a national monitoring approach. Dr Jenny Huggett also briefed on the "Pelagic ecoregionalization of the eastern South Antarctic region" project, focusing on the subantarctic islands, in collaboration between France, South Africa, and Australia. The project involves studying the oceanography and biology of the region, particularly the feeding hotspots for marine life.

Dr Ocky Radjasa showed the recent published biogeochemical work in Indian Ocean conducted by National research and Innovation agency (BRIN), Indonesia. He also discussed the research planned for 2024-2025 which focuses on the Indian Ocean variability and its impact on climate and ecosystem of Maritime Continents. He also showed their five proposed research themes for the scientific exploration in the Indian Ocean: (1) Ocean dynamics and biogeochemistry, (2) Marine biodiversity, (3) Pollution and ecosystem health, (4) Bioprospecting and biotechnology and (5) Ecosystem and environmental change. Further, Dr Ocky briefed on the future ocean expeditions planned by BRIN in collaboration with the international research organisations such as the BRIN-OCEANX expedition in May-June 2024, Indian Ocean Summer 2024(French DIPOMO USS Research on R/V Marion Dufresne, Floating University program by Indian Ocean Academic group (IORAG) etc. Dr Dwi Susanto talked about the additional 3 scientific Cruise plans under discussion from the Indonesian side.

Prof P N Vinayachandran reported the biogeochemistry workshop in Kochi, India which addressed the pressing issues in the biogeochemistry of the Indian Ocean like oxygen minimum

zone, nutrient depletion, Impact of supply of nutrient from land etc. He also told the major issue they discussed in the workshop is related to the modelling of biogeochemistry and ecosystem dynamics due to the lack of in-situ observation in the area. Dr Vinayachandran also updated about availability of their long-term simulations from coupled physical-biogeochemical model (combination of MOM4 and TOPAZ) for the period 1961-2021.

Dr Aneesh Lotliker gave update of events from INCOIS, India such as deployment of coastal biogeochemical mooring in two locations as a part of Coastal Monitoring project and about the biogeochemical observations conducted during the EKAMSAT cruise onboard ORV Sagar Nidhi. He also updated about the Glider deployment plan in the September 2023 in Bay of Bengal.

**2. Update (Cowie) re. IMBeR SC meeting in April including proposed synthetic activities across regional programmes and working groups.**

Dr Gregory Cowie gave update from the IMBeR steering committee meeting from the Paris happened April 2023. He mentioned that there had been a request from IMBeR to generate ideas for possible synthetic activities. These ideas encompassed topics related to governance and linkages between lower and higher trophic levels. He also informed about capacity-building initiatives. Cowie emphasized the importance of reporting publications and outputs since March to IMBeR, underlining that IMBeR values this information highly. IMBeR has a keen interest in SIBER's impressive output in terms of publications and its involvement in leading cruises and leveraging science in the Indian Ocean.

**Synthesis activities:** IMBeR had initiated synthesis activities, including early career researcher capacity development and governance-related activities. He expressed their willingness to lead the initiative concerning capacity building and best practices for coastal ocean observations. Cowie encouraged feedback from attendees regarding other areas of interest concerning early career researchers. Attendees engaged in a discussion regarding the necessity of a leader from the SIBER community for governance-related activities. Attendees were encouraged to provide details of any relevant papers published since March.

**Management of SIBER by China Office:** Dr Gregory Cowie discussed challenges related to the management of SIBER by the China Office. Recent developments had raised concerns as the China Office had initiated IMBeR endorsements for projects that might not involve SIBER or the Indian Ocean expedition. Cowie expressed concerns about a new study group focusing on the Indian Ocean that did not involve SIBER. Attendees engaged in a discussion about the need to address the changing dynamics between SIBER and IMBeR, especially concerning the increased involvement of the China Office.

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Office. The participants also emphasized the need to connect science with social science for effective policymaking. It was agreed that governance should be adaptable to the specific characteristics of different ocean regions. The discussion focused on using the Indian Ocean and the Nairobi Convention as an illustrative example rather than a specific activity. The goal was to integrate scientific findings into policy-making processes, with an emphasis on scientists playing an active role in ensuring their warnings are translated into actionable policies.

Furthermore, the meeting highlighted the alignment of these discussions with the UN Decade of Ocean Science for Sustainable Development, offering opportunities for more inclusive participation and training in coastal science, social science, and governance.

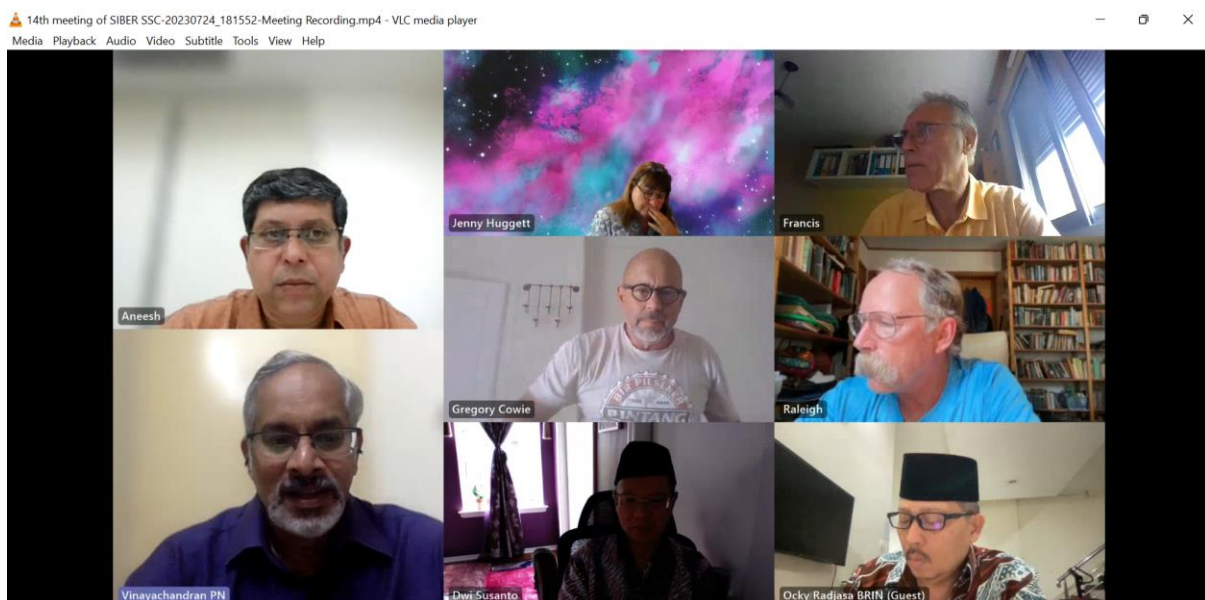
### **3. Update on extended IIOE-2 and meeting in Hyderabad.**

Prof Reyleigh Hood provided an update on the IIOE-2 indicating a potential extension beyond 2025, in line with the UN Decade's objectives. An IIOE-2 leadership meeting is planned in Hyderabad during November 2023 to finalize the details. While there was a suggestion to align the timing of IIOE 2's training camp with the joint meeting in Indonesia, the participants stressed the importance of prioritizing quality and thorough preparation.

Additionally, details about the BRIN Researcher Mobility Program were provided, with applications opening in either October or November for implementation in April 2024.

### **4. Other matters – including further additions to SIBER SC**

The meeting ended with a call to circulate a document on IMBeR activity suggestions for feedback and to follow up on the possibility of hosting the joint meeting in Indonesia. Participants were also encouraged to share information about the BRIN researcher mobility program with colleagues and students and to plan further discussions on the Collab initiative and its potential activities. A decision on the timing of a training camp in Lombok would be made based on preparation and funding availability.



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