

Report of the 19th Annual Meeting of Indian Ocean Global Ocean Observing System (IOGOOS-19)

March 07, 2024



1. Opening Remarks

Dr. T. Srinivasa Kumar, Chair IOGOOS welcomed all the members and participants to the annual meeting and requested Dr. Nick to serve as a Co chair as it is a hybrid meeting. Chair requested Dr. Nick to run through the agenda (Annexure 1) and seek comments if any point to be discussed as part of the agenda.

2. Organization of the Meeting (including confirmation of agenda and additional agenda items) by Dr. T. Srinivasa Kumar, Interim Chair, IOGOOS

As there are no comments and additional items to include, the agenda is adopted and requested the Panels to provide the reports to the members.

3. GOOS and GOOS Regional Alliances by Dr. Emily Smith.

Dr. Emily Smith provided a comprehensive overview of the Global Ocean Observing System (GOOS), detailing how to engage with it. She outlined the structure of GOOS and its allainces, which includes Member States, users, and beneficiaries, and discussed key aspects such as Co-Design Capacity Development, data management and portals, as well as partners and funding details. She also highlighted the GOOS prominent projects including, TPOS, DOOS, AtlantOS, IMDOS, SmartCables and Ocean Best Practices. Additionally, She reviewed three expert panels: Physics and Climate (OOPC), Biogeochemistry (BGC) and Biology and Ecosystems (BioEco) and she highlighted the UN Decade projects which includes DCO, Decade Programmes (3 GOOS - led + 8 Others) + 91 UN Projects. She also noted that there are 16 GOOS Regional Alliances (GRAs) and 76 National Focal Points (NFPs).

4. Reports from Panels [IOGOOS, IRF, SIBER, IORP, IIOE-2]

4.1. Report from the Indian Ocean Region Panel by Dr. Juliet Hermes

Dr. Juliet Hermes provided an update on the implementation of IndOOS-2, highlighting the positive impact of recent regional coordination efforts. She also discussed the status of RAMA moorings and core Argo contributions. Additionally, she referenced a BAMS article concerning the scientific community's role. In concluding her presentation, she posed the question, "Can we do more to emphasize the importance of the Indian Ocean Observing System (IOO)?" Dr. Nick shared his perspective on this query, and several participants contributed their suggestions and opinions on it.

4.2. Report from Sustained Indian Ocean Biogeochemistry and Ecosystem Research by Dr. Raleigh Hood

Dr. Raleigh Hood provided updates and changes regarding the SSC members and host of the Secretariat and expressed gratitude to INCOIS for their immense support for the SIBER website, He also gave an update on the SIBER/IIOE- 2 cruises noting that the SIBER/IIOE 110° E Repeat line Cruise had been completed and involved a coupled bio-physical ecosystem scale examination of Australia 's International Indian Ocean Expedition Line. He highlighted the NSF-funded US EIOURI cruise and discussed the integration of MOSAIC under the SIBER. He also mentioned the U.S funded 53 million dollars for BGC Argo floats program, actively deployed the BGC Argo floats in the Indian Ocean, BGC Argo floats are also being deployed or funded by MoES India, with these data being available for public use. He mentioned that IIOE – 2 motivated by SCOR, SIBER, IORP and IOGOOS and SIBER is officially sponsored by SCOR, IOC and IOGOOS. He highlighted about the special issues of EGU on IIOE – 2, and Deep-Sea Research special issues series on IIOE – 2 nearly 70 papers has been published so far and he also highlighted about the interdisciplinary book of synthesis chapters on the Indian Ocean for publication as an “Elsevier book”. And also gave an update on recent meetings and special session on Indian Ocean.

4.3. Report from IndOOS Resource Forum (IRF Chair) by Dr. Nick D'Adamo

The progress of the IRF was presented in the previous session on IRF and hence it is proposed to take up the same as report to IOGOOS. The summary of proceedings of IRF meeting is detailed below.

Dr. Nick D'Adamo mentioned that IRF was established to support IORP and SIBER according to annual (and inter-sessional if required) requests for support of tactical or strategic natures. The way it works is that if IORP or SIBER believes it requires specific support for IndOOS (resources or strategic support) then those entities may advise IRF and ask that IRF Members (in their roles as leaders of operational divisions in institutions linked to IORP and SIBER members) do what they can to find or align resources to support their needs. Examples of the success of this modality exist (eg BGC sensors put on RAMA moorings; raising of piracy as an issue affecting IndOOS at IOC UNESCO levels). It is notable that very few tangible requests have been received by IRF of late. However, the IRF as a support mechanism is 'for and by' the IORP and SIBER members and hence is happy to accept requests when and if required. I encourage IORP and SIBER to submit requests for support as may be needed and then have IRF forward those to its Members for consideration. Even if only to raise awareness of or advocate for resource needs (especially relevant post the COVID era), this may be worthwhile. IORP and SIBER members are also encouraged to be active in facilitating appropriate membership of IRF, so that the IRF Member constituency (ie the IRF Members) are linked materially to operational / resource divisions of their aligned oceanographic agencies

4.4. Report on the status and progress of IIOE-2 by Dr. Aneesh Lotliker

Dr. Aneesh Lotliker provided an overview of the maintenance and updating of the IIOE-2 website, noting that the website received 14,114 visitors from January to December 2023. He summarized the endorsement of 54 scientific projects aligned with IIOE-2 objectives and highlighted the development of a dedicated webpage for publishing these projects, featuring science themes, endorsement forms, cruise tracks, research highlights, and mentioned about the status of the projects.

Dr. Aneesh discussed outreach activities, including the monthly online newsletter published by PO India, with 85 issues published till date, and the bi-annual publication of the Indian Ocean bubble, which has seen 17 issues published with the 18th issue soon to be circulated. He mentioned the availability of the Metadata portal on the IIOE-2 website and expressed gratitude to Mr. Pattabhi Rama Rao and Dr. Raleigh for their support. He also mentioned IIOE-2's support for the Early Career Scientist Network (ECSN), noting the development and sharing of a new draft prototype website with ECSN members, as well as wide circulation of an online form for joining the network. Dr. Aneesh recalled the meetings on the Future Roadmap for the International Indian Ocean Expedition held at INCOIS Hyderabad from November 28 - 30, 2023. He highlighted several outcomes, including a major focus on ST1: Human impacts and Benefits, the proposal for a new working group for ECSN, and key outcomes from the SC-7 meeting held on March 4-5, 2024.

4.5. Reports from the Pilot Projects on Modelling for Ocean Forecasting and Process Studies Project & Indian Ocean Core Remote sensing project IOGOOS by Mr. Nagaraja Kumar

Mr. Nagaraja Kumar presented a comprehensive overview of the Secretariat's activities since the previous annual meeting. He summarized the action items from the 18th Annual Meeting and subsequent activities, and provided the updates on INDOOS and related initiatives, including the recent EKAMSAT Cruise, which enabled international participation and highlighted data access procedures. He detailed IOGOOS's Ocean Forecasting Services, emphasizing alignment with the UN Ocean Decade through the OceanPredict program, including a newly designed survey form and updated parameters. Additionally, he reported on the collaboration with OceanPredict DCC and

recapped the inaugural Indian Ocean regional team meeting hosted by INCOIS on May 3, 2023. He then elaborated on Ocean services for RIMES member states, the availability of ocean prediction models and products on the web portal, remote sensing products, Indian Ocean Core Remote Sensing projects, and INCOIS capacity-building activities. He also provided insights into IOGOOS's involvement in the UN Ocean Decade and recent Ocean Literacy Programs.

5. IOGOOS Annual Meeting

5.1. Welcome by Chair, IOGOOS

Dr. T. Srinivasa Kumar, Chair, IOGOOS welcomed all the members and experts to the IOGOOS 19th general body meeting and requested to make the secretariat report.

5.2. Presentation of Secretariat Report and Accounts and Financial Summary of IOGOOS by Secretariat by Mr. Nagaraja Kumar

The report has been discussed in a previous presentation, and therefore, the same points should be adopted.

Mr. Nagaraja Kumar provided the details of the Financial statement of the bank accounts being operated, the annual statement for the period of April 2021 - March 2023 auditing and Financial Accounting for April 01, 2023 to January 31, 2024 has been completed (Annexure 2). The statement of accounts is being submitted for verification and approval and then he requested chair to nominate an officer to verify them and certify. The financial statements have been verified and certified by Dr. Nick D'Adamo, Member of IOGOOS.

5.3. Confirmation of new memberships if any and proposal by IOGOOS Chair.

Department for Continental Shelf, Maritime Zones Administration & Exploration of Prime Minister's Office of Mauritius showing interest to join IOGOOS.

5.4. Elections of Chair IOGOOS, Officers if any

There are no elections scheduled, as there are no vacant positions up to October 2024.

5.5. Discussions on taking up of new projects of Interest to the region, if any

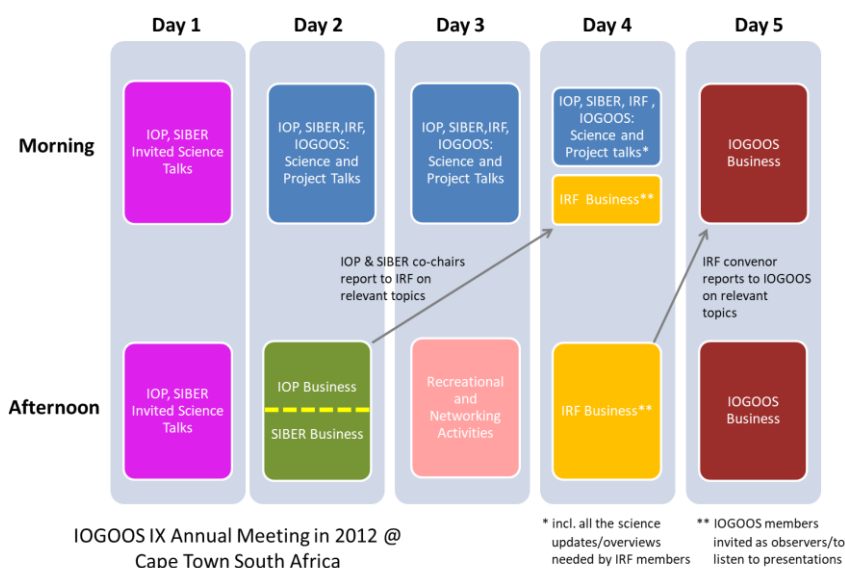
As there are no specific requests for taking up of the new projects, the agenda point is treated as completed.

5.6. Discussions on structure of integrated meetings

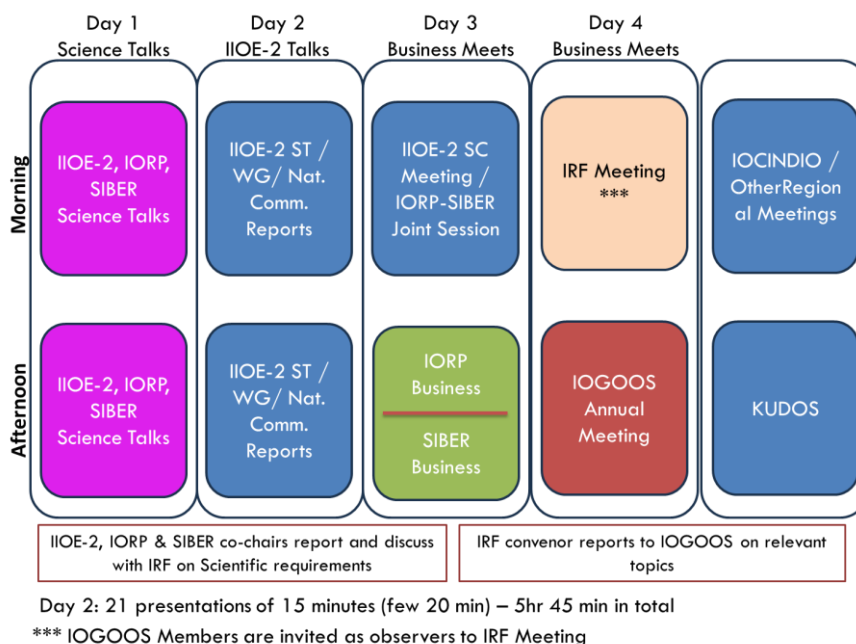
The chair requested all the participants to confirm the upcoming integrated meetings and plenary talks. Mr. Nagaraja Kumar, Secretary, IOGOOS has provided a comprehensive outline on the present structure of integrated meetings and detailed about the difficulties involved as well as repetition of presentation and talks by the members and project leads. Keeping in view of this, he proposed a new structure as shown below. Subsequently, the chair invited participants to offer any comments or feedback they might have. Several participants took this opportunity to share their insights and opinions on the proposed structure. The Officers, members of IOGOOS and the leads of projects / programs have agreed to the proposed structure and requested to follow from next annual integrated meetings.

Existing Structure of IOGOOS Integrated meetings

Structure of Future IOP/SIBER/IRF/IOGOOS Meetings



Proposed new structure of IOGOOS meetings.



5.7. Next meeting date, venue, and hosting - to be considered with joint input from IOGOOS, IORP, SIBER, IRF and IIOE-2 Co-Chairs

The next annual meeting venue and dates will be decided in conjunction with all leads of IORP, SIBER, IRF, IIOE-2. Chair mentioned that Department for Continental Shelf, Maritime Zones Administration & Exploration of Prime Minister's Office of Mauritius showed interest to host the meeting, chair inquired secretariat to urge them and finalize the meetings date and venue.

5.8. Any other final items

As there are no specific items to be discussed, the agenda point is treated as completed.

The meeting ended with chair thanking all the participants/members for their active participation.

**19th Annual Meeting of
Indian Ocean Global Ocean Observing System (IOGOOS)**

Agenda

March 07, 2023 (1030 - 1330 Hrs Indonesian Time (UTC+ 08 Hrs))

Online Zoom Meet Link:

<https://zoom.us/j/99049232542?pwd=Vms1dE1KYzVkVTBvbkg0ZzhxSTJ4Zz09>

(Meeting ID: 990 4923 2542, Passcode: Lombok)

Time (UTC +8)	Agenda Item
10:30 - 11:00 Hrs	<ol style="list-style-type: none"> Opening Session (5 mins each) <ul style="list-style-type: none"> Welcome Address by Dr. T. Srinivasa Kumar, Chair IOGOOS Opening Remarks by Dr. Brett Molony, IOGOOS Officer Opening Remarks by Dr. Faiza Al Yamani, IOGOOS Officer Opening Remarks by Dr. Jenny Huggett, IOGOOS Officer Opening Remarks by Dr. Juliet Hermes, IOGOOS Officer Organization of the Meeting (including confirmation of agenda additional agenda items) by Dr T. Srinivasa Kumar, Chair IOGOOS
11:00 – 12:00 Hrs	<ol style="list-style-type: none"> GOOS and GOOS Regional Alliances by Dr. Emily Smith (15 min) Reports from Panels [IOGOOS, IRF, SIBER, IORP, IIOE-2] – (10 min each + 5min discussions / Q &A) – Chair: Dr. T. Srinivasa Kumar, Chair, IOGOOS <ol style="list-style-type: none"> Report from the Indian Ocean Region Panel – Dr. Juliet Hermes Report from Sustained Indian Ocean Biogeochemistry and Ecosystem Research – Dr. Greg Cowie / Dr. Raleigh Hood Report from IndOOS Resource Forum (IRF Chair) – Dr. N. D'Adamo
12:00 – 12:15 Hrs	Comfort Break
12:15 – 12:30 Hrs	<p>Reports from Panels [IOGOOS, IRF, SIBER, IORP, IIOE-2] – (10 mins each + 5min discussions / Q &A) – Chair: Dr. T. Srinivasa Kumar, Chair, IOGOOS - Continued</p> <ol style="list-style-type: none"> Report on the status and progress of IIOE-2 (PO office) – Aneesh Lotliker / Mr. N. Kiran Kumar Reports from the Pilot Projects – Mr. M. Nagaraja Kumar (Will be presented as part of ATR Report of Secretary, IOGOOS in next session) <ol style="list-style-type: none"> Modelling for Ocean Forecasting and Process Studies Project (Project Leader) IOGOOS Pilot Project: Indian Ocean Core Remote Sensing Project IOGOOS

12:30 – 13:30 Hrs	<p>5. IOGOOS Annual Meeting. (Chair, Dr T. Srinivasa Kumar, Chair IOGOOS)</p> <p>5.1. Welcome by Chair, IOGOOS</p> <p>5.2. Presentation of Secretariat Report and Accounts and Financial Summary of IOGOOS by Secretariat–</p> <p>5.3. Mr. Nagaraja Kumar</p> <p>5.4. Confirmation of new memberships, if any and proposal by IOGOOS Chair.</p> <p>5.5. Elections of Chair IOGOOS, Officers if any</p> <p>5.6. Discussions on taking up of new projects of Interest to the region, if any</p> <p>5.7. Discussion on structure of integrated meetings</p> <p>5.8. Next meeting date, venue, and hosting - to be considered with joint input from IOGOOS, IORP, SIBER,</p> <p>5.9. IRF and IIOE-2 Co-Chairs</p> <p>5.10. Any other final items</p>
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INDIAN OCEAN GLOBAL OCEAN OBSERVING SYSTEM (IOGOOS)
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Receipts and payments Account for the period from April 1, 2022 to Mar 31, 2023

Receipts	Amount (Rs.)	USD	Payments	Amount (Rs.)	USD
Opening Balances:					
i) Union Bank of India, Pragathi Nagar Branch, Hyderabad, Account no 171410100022355	901,151.00	11,871.31	Bank charges	2,697.00	32.82
ii) Union Bank of India, Pragathi Nagar Branch, Hyderabad, Account no 171410100022346	2,727,836.00	35,935.13	payment towards air ticket charges	364,610.00	4,436.72
Interest received from savings accounts at banks	114,385.00	1,391.88			
Installment-I received from UNESCO, paris, France towards conducting an activity	992,091.00	12,072.17			
Installment-II received from UNESCO, paris, France towards conducting an activity	1,715,416.00	20,873.89			
Installment-III received from UNESCO, paris, France towards conducting an activity	341,642.00	4,157.24	Closing Balances:		
			i) Union Bank of India, Pragathi Nagar Branch, Hyderabad, Account no 171410100022355	926,740.00	12,182.69
			ii) Union Bank of India, Pragathi Nagar Branch, Hyderabad, Account no 171410100022346	5,498,474.00	69,649.40
	6,792,521.00	86,301.62		6,792,521.00	86,301.62



INDIAN NATIONAL CENTRE FOR OCEAN INFORMATION SERVICES, HYDERABAD

CASH BOOK OF UNION BANK IOGOOS FOREIGN ACCOUNT NO.171410100022346 FOR THE PERIOD 01.01.2024 TO 31.01.2024

RECEIPTS			PAYMENTS				
Posting date	Particulars	Amount (Rs.)	USD	Posting date	Particulars	Amount (Rs.)	USD
	OPENING BALANCE AS ON 01.01.2024	5,616,336.08	67,479.71				
04.01.2024	Interest Credited from 01.10.2023 to 31.12.2023	41,050.00	494.10	04.01.2024	Payment to Balmer Lawrie &Co.Ltd towards purchase of international Air tickets as per UNESCO contract No: 4500498824(OTGA-INCOIS course)	499,672.00	6,014.35
				04.01.2024	Payment to Balmer Lawrie &Co.Ltd towards purchase of international Air tickets as per UNESCO contract No: 4500498623(IOCINDIO FUNDING)	277,064.00	3,334.91
				04.01.2024	Bank charges for PORD on payment made to Balmer Lawrie & co for Rs 2,77,064	28.91	0.35
				04.01.2024	Bank charges for PORD on payment made to Balmer Lawrie & co for Rs 4,99,672	28.91	0.35
					CLOSING BALANCE AS ON 31.01.2024	4,880,592.26	58,623.86
			67,973.81			5,657,386.08	67,973.81

Note: USD rates

USD/INR Rate on 2024-1-31 1 USD = 83.08474 INR	83.08
USD/INR Rate on 2024-1-01 1 USD = 83.22625 INR	83.23



INDIAN NATIONAL CENTRE FOR OCEAN INFORMATION SERVICES, HYDERABAD
CASH BOOK OF UNION BANK IOGOOS LOCAL ACCOUNT NO.171410100022355 FOR THE PERIOD 01.01.2024 TO 31.01.2024

RECEIPTS				PAYMENTS			
Posting date	Particulars	Amount (Rs.)	USD	Posting date	Particulars	Amount (Rs.)	USD
	OPENING BALANCE AS ON 01.01.2024	945,878.70	11,364.64				
04.01.2024	Interest Credited from 01.10.2023 to 31.12.2023	6,556.00	78.91				
22.01.2024	Cash	1.00	0.01				
					CLOSING BALANCE AS ON 31.01.2024	952,435.70	11,443.56
	Total	952,435.70	11,443.56		Total	952,435.70	11,443.56

Note: USD rates

USD/INR Rate on 2024-1-31 1 USD = 83.08474 INR	83.08
USD/INR Rate on 2024-1-01 1 USD = 83.22625 INR	83.23