

ANNOTATED AGENDA	
Meeting Title	Ninth Annual Meeting of the Indian Ocean Observing System Resource Forum (IRF-9)
Date	Thursday 14 March 2019
Time	15:30-17:00
Location	Nelson Mandela University, as part of the International Indian Ocean Science Conference 2019 (http://www.iioe-2.incois.gov.in/IIOE-2/IIOESC2019.jsp)
Agenda status	Circulated pre-meeting as an annotated draft
Acting Chair	Nick D'Adamo
Invited participants	IRF members and ex-officios (with observer attendance considered by request to Acting Chair at nick.dadamo@bom.gov.au) Current membership a sat 22 February 2019, in Appendix 1 .

1 Welcome, introductions, confirmation of agenda, identification of 'any other business' for the agenda. (Convener) 5 mins.

- This meeting is one of the integrated set of meetings held under the banner of the International Indian Ocean Science Conference 2019 (IIOSC 2019), 11-15 March 2019, Port Elizabeth, South Africa, as detailed in the IIOSC 2019 Information Booklet, available at <http://www.iioe-2.incois.gov.in/IIOE-2/IIOESC2019.jsp>
- The draft IRF-9 agenda was circulated ahead of the meeting.
- The current (22 February 2019) membership list for IRF, taking account of recent retirements and inclusions, is at **Appendix 1**.

2 Final check of IRF-8 Draft Report for finalization and submission to IOGOOS. (Convener) 10 mins.

The draft IRF-8 report was circulated prior to meeting, as copied to **Appendix 2**.

3 Status of IRF-8 Action Items and Convener's comments. (Convener) 10 mins.

Action 8.1 (Convener): As an over-arching action item going forward, the Convener to facilitate (on behalf of IOGOOS and in liaison with IORP and SIBER) IRF's membership renewal and an examination of its ToR as might be required to position it to best support a renewed IndOOS, in reference to the current IndOOS review process taking place and due to be finalized within the next 12 months or so.

During January 2019, the Convener prepared and circulated a background paper (dated 11 January 2019) to underpin IRF going forward. This paper was also circulated, for ref/info, as a reference document for this agenda. Related to this background paper were the Business Plan for IRF (dated 21 Dec 2011) and the revised Terms of Reference for IRF (dated 31 March 2017, and which was copied into 11 January 2019 background paper).

The 11 January 2019 background paper included the membership list of IRF **as at IRF-8 (March 2018)**. The IRF membership list has subsequently been updated and as mentioned above, is attached herewith in **Appendix 1**. The background paper of 11 January 2019 included a recommended framework of action to renew IRF's membership, including asking existing members of their intentions to continue or otherwise and to identify and invite new prospective members for IRF, bearing mind the interest expressed by IORP and SIBER to continue IRF as a mechanism to support a revised IndOOS, in light of the IndOOS Decadal Review.

IORP and SIBER identified a number of new members, with actions undertaken (Jan/Feb 2019) by Convener on behalf of the IOGOOS Chair, as follows:

- Dr Ken Ando confirmed that Prof Shirayama has stepped down as member (having retired from JAMSTEC), with Dr Ando replacing Prof Shirayama as member.
- Dr Qu Tanzhou, China has stepped down as member (having retired as Director General, Department of Marine Forecast and Disaster Mitigation, SOA). Letter of thanks written.
- Dr Chen Zhi, China – invited as new member. Response pending.
- Dr Gilbert Siko, South Africa – invited as new member. Accepted. Letter of thanks written.
- Dr M Rajeevan, India – invited as new member. Response pending.

Action 8.2 (IORP and SIBER Co-Chairs): Provide IORP and SIBER resources requests for IRF-9, in light of needs that will relate to the revised IndOOS, forthcoming as a result of the IndOOS Decadal Review process.

Pending submission to Convener prior to IRF-9 meeting.

4. Update on IndOOS Status. (IORP and SIBER Co-Chairs) 10 mins.

(a) Physical

(b) BGC

5. IndOOS Decadal Review status. IORP Co-Chairs. (Lisa Beal and/or Roxy Koll) 15 mins.

6. Summary of IORP and SIBER respective resources needs. (IORP and SIBER Co-Chairs) 20 mins.

(a) Physical

(b) BGC

7. Suggestions for a new Chair and other prospective new members for IRF. (IORP and SIBER reps) 10 mins.

8. Any other business. (All) 10 mins.

End

Reference documents to this agenda, circulated ahead of the meeting:

Indian Ocean Observing System (IndOOS) Resources Forum of IOGOOS (IRF) - A summary of its evolution and status and recommended actions on renewal of the IRF and its membership. Prepared on behalf of IOGOOS (as patron of IRF) by the Convener and current Chair of IRF, Dr Nick D'Adamo, UNESCO Intergovernmental Oceanographic Commission - Perth Programme Office. 11 January 2019.

APPENDIX 1

IRF Membership as at 22 February 2019

IndOOS Resource Forum (IRF) List - Members / Ex-Officio

IRF Members (and alternates, where provided)		
	IRF Members – National links	Alternate
Australia	Mr. Tim Moltmann IMOS Director University of Tasmania Private Bag 110 Hobart TAS 7001, Australia Email: Tim.Moltmann@imos.org.au	Dr Indi Hodgson-Johnston, Assistant Director, IMOS Australia, University of Tasmania Private Bag 110 Hobart TAS 7001, Australia Email: indiah.hodgsonjohnston@utas.edu.au
China	Mr. Chen Zhi Division of Marine Observation Division State Oceanic Administration, P.R. China No. 1 Fuxingmengwai Ave, Beijing 100860, China Email: chenzhi@nmefc.cn	
France	Prof Jean-Marie FLAUD Directeur de recherche CNRS-INSU 3 rue Michel-Ange 75794 Paris, France Email: jean-marie.flaud@cnr.fr	G�rard Eldin (alternate) D�l�gu� scientifique CNRS-INSU Email: gerard.eldin@cnr-dir.fr
India	Dr. Satheesh C. Shenoi Director, Indian National Centre for Ocean Information Services (INCOIS) (Ministry of Earth Sciences, Government of India) "Ocean Valley", Pragathi Nagar, Nizampet P.O Hyderabad - 500 090, India Email: shenoi@incois.gov.in	Dr M. Nagaraja Kumar (alternate) Scientist & In-Charge, Potential Fishing Zones (PFZ) Mission, Secretary, Indian Ocean Global Ocean Observing System (IOGOOS) Indian National Centre for Ocean Information Services (INCOIS), Ministry of Earth Sciences, Govt. of India "Ocean Valley", PB No. 21, IDA Jeedimetla PO, Hyderabad, Andhra Pradesh-500 055, India Email: raja@incois.gov.in

India		(Note: Convener has written to Secretary, India Ministry of Earth Sciences, RE: invitation to become Member)
Indonesia	Pending – Convenor corresponding with Zainal Arifin, Indonesian Institute of Sciences (LIPI)	Convener to contact: invite new member
Iran	Professor Behrooz Abtahi Director Iranian National Institute for Oceanography and Atmospheric Science #3 Etemad Zadeh St., Fatemi Ave Tehran, Iran inioas@inio.ac.ir	
Japan	Mr Kentaro Ando Group Leader, Research Centre for Global Change, JAMSTEC 2-15 Natsushima, Yokosuka Kanagawa, Japan Email: andouk@jamstec.go.jp	
South Korea	Pending	
South Africa	Dr Dismore Gilbert Siko Director – Marine and Polar Research, Paleosciences. Department of Science and Technology, Pretoria 111111, South Africa Gilbert.Siko@dst.gov.za	
USA	Dr David Legler Director, Climate Observations Division NOAA Climate Program Office 1315 East West Highway Silver Spring, MD 20910-5603, USA david.legler@noaa.gov	Dr Sidney Thurston (alternate) Overseas Program Development, Climate Observations Division Climate Program Office 1315 East West Highway Silver Spring, MD 20910-5603, USA Sidney.Thurston@noaa.gov
IRF Members – International Organisations		
IOC	Dr. Vladimir Ryabinin Executive Secretary, UNESCO IOC, 1 rue Miollis, 75732 Paris, Cedex 15, France Email: v.ryabinin@unesco.org	
ICPO	Dr Jose Luis Santos Davila Executive Director International CLIVAR Project Office (ICPO) c/- First Institute of Oceanography, SOA 6 Xianxialing Rd	Dr Jing Li Staff Scientist International CLIVAR Project Office First Institute of Oceanography, SOA Qingdao, China 266061

	Laoshan District Qingdao, China, 266061 Email: jose.santos@clivar.org	Tel: +86-532-88891090 Email: jing.li@clivar.org
IOC Perth Programme Office	Dr Nick D'ADAMO, IRF Convenor & Acting IRF Chair Head - Perth Programme Office of the Intergovernmental Oceanographic Commission (IOC), UNESCO c/- Commonwealth Bureau of Meteorology, Australia, 3 rd floor, 1 Ord Street West Perth 6005, Western Australia, Australia Email: nick.dadamo@bom.gov.au	
IRF – Ex-Officio		
IORP	Dr Roxy Mathew Koll, IORP Co-Chair Centre for Climate Change Research, Indian Institute of Tropical Meteorology, Pashan, Pune - 411 008, India. http://www.climate.rocksea.org/	
IORP	Dr Lisa Beal, IORP Co-Chair Associate Dean of Research Professor of Ocean Sciences Rosenstiel School of Marine and Atmospheric Science University of Miami 4600 Rickenbacker Causeway Miami, FL 33149-1098 Email: lbeal@rsmas.miami.edu https://people.miami.edu/profile/l.beal@miami.edu	
SIBER	Prof Raleigh R. Hood, SIBER Co-Chair Horn Point Laboratory University of Maryland Centre for Environmental Science P.O. Box 775 Cambridge, MD 21613 email: rhood@umces.edu	
SIBER	Dr Greg Cowie, SIBER Chair University of Edinburgh Centre for Earth System Dynamics School of Geosciences, Global Change / Oceans and Past Climate Email: Dr.Greg.Cowie@ed.ac.uk	(Greg Cowie's position as Chair SIBER to be formalised March 2019)
SIBER	Dr. Satya Prakash, SIBER Secretary	

	<p>Indian National Centre for Ocean Information Services (INCOIS), Ministry of Earth Sciences (MoES), Govt. of India "Ocean Valley", Pragathi Nagar (BO), Nizampet (SO), Hyderabad, Andhra Pradesh-500 090, India Email: satya29prakash@gmail.com</p>	
IOGOOS	<p>Prof Michael McPhaden NOAA Senior Scientist. NOAA PMEL Division: Ocean Climate Michael.J.Mcphaden@noaa.gov</p>	
IOGOOS	<p>Mr. M. Nagaraja Kumar, Secretary, Indian Ocean Global Ocean Observing System (IOGOOS), Scientist In-charge, PFZ Mission, Indian National Centre for Ocean Information Services (INCOIS), 'Ocean Valley', Pragathi Nagar BO, Nizampet SO, Hyderabad-500054, Andhra Pradesh, India Email: raja@incois.gov.in ; raja.masuluri@gmail.com</p>	
IOGOOS	<p>Vacant (IOC Officer, to be advised).</p>	
IOGOOS	<p>Dr Somkiat Khokiattiwong IOGOOS Officer; Coordinator, South East Asia GOOS (SEAGOOS); Chair IOC Sub-Commission for the Western Pacific (IOC WESTPAC); Associate Officer IOGOOS Phuket Marine Biological Centre PO Box 60 Phuket 83000 Thailand Email: somkiat@e-mail.in.th; skhokiattiwong@gmail.com</p>	
IOGOOS	<p>Dr. Satheesh C. Shenoi, IOGOOS Chair Director, Indian National Centre for Ocean Information Services (INCOIS) (Ministry of Earth Sciences, Government of India) "Ocean Valley", Pragathi Nagar, Nizampet P.O Hyderabad - 500 090, India Email: shenoi@incois.gov.in</p>	
IOGOOS	<p>Mr. Rezah Badal IOGOOS Officer; Head, Office for Ocean Affairs and Development,</p>	

	Prime Minister's Office, Port Louis, Mauritius Mob: +230 57290150 Email: mrbadal@govmu.org	
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APPENDIX 2

Report

Eighth Annual Meeting of the Indian Ocean Observing System Resource Forum (IRF-8).

**Held as part of the agenda of the 14th Annual Meeting of Indian Ocean Global
Ocean Observing System (IOGOOS)
March 23, 2018, Hotel Grand Mercure,
Jakarta, Indonesia**

**IRF Convener and Acting Chair, Nick D'Adamo, IOC Perth Programme Office,
nick.dadamo@bom.gov.au**

Final draft 21 February 2019, for ratification at IRF-9.

Participants

IRF National Representatives:

Sid Thurston (NOAA, USA) – proxy for David Legler

Satheesh Shenoi (INCOIS, India)

Ken Ando (JAMSTEC, Japan) proxy for Prof Shirayama

Nik D'Adamo (IOC PPO) proxy for Vladimir Ryabinin

IRF Ex-Officio Members:

Nick D'Adamo (IRF Convenor) – supported by rapporteur Diane Erceg (IOC PPO)

Rezah Badal, IOGOOS Officer

Nagaraja Kumar, IOGOOS Secretary

Observers:

Mike McPhaden (IORP)

Dr M Atmanand, IOCINDIO Chair

1. General introductory comments and responses

Nick D'Adamo (ND) gave an overview on the status and future issues for IRF.

Highlighted were: IRF Members' issues; SIBER's and IORP's regular submission with regard to the need for assistance and facilitation; and the general issue of resourcing what will be a revised IndOOS (noting the current IndOOS Review process being led by IORP in conjunction with SIBER).

IORP and SIBER advised that they would submit their annual 'resources requests' to the IRF Convener after the IndOOS review.

2. Maintenance of IRF

In respect to continuing and maintaining IRF, ND recalled recent thoughts (past 2-3 years) expressed by some members and related IRF stakeholders that perhaps IRF had 'run its course' and may need to be terminated or reconsidered. ND reported on the most recent feedback he had been receiving from IORP and SIBER that there was a strong renewed interest in revitalizing the IRF membership, particularly in light of the imminent revised IndOOS framework and the need for IndOOS to continue to receive support from the operational stakeholders aligned with IRF.

He noted that many of the IRF's Members are leaders of operational institutions from which many scientists from IORP and SIBER derive. IRF was created (2010) for pragmatic reasons to benefit IORP and SIBER (and related IndOOS objectives) – including addressing piracy, support for RAMA (which had, at the time of IRF inception, been only 20-30% implemented) and general support for all elements of IndOOS. In fact, the feedback indicated that IRF is still seen as a useful forum to provide IORP and SIBER with a mechanism to advocate annually to their own operational constituents (ie their respective members' host institutions involved in ocean science operations) for support (eg for IndOOS and related research). Operationally and practically, the role of IRF as a forum for advocacy for resources was seen as the key imperative.

3. Mode of IRF meetings (face to face vs electronic)

With regard to the IRF Chairing, it was recalled that under Dr. Shailesh Nayak as first chair, IRF made good progress in achieving usefulness for IORP, SIBER and IndOOS in IRF's first few years. Many IRF representatives attended the annual IRF meetings in person during the first 3-4 years. Then they began to meet out of session. There was then a natural decline in members' engagement. Consequently, last year, IRF constituents discussed whether they felt we still needed the IRF. The majority response was affirmative, in that IRF was still needed. However, most if not all thought that it could continue to meet out of session as it was believed it could still achieve its aims without necessarily requiring IRF members having to spend valuable time travelling for annual ½ - 1 day meetings.

For this IORP-8 meeting, in light of the IndOOS Review, the IORP (and this reflected SIBER's views also) re-affirmed that they wanted the IRF to be reconstituted and for membership to be renewed and as much as possible for IRF to meet face to face.

4. Re-energising IRF

IOC PPO was tasked with re-energising IRF. IOC PPO sought IOGOOS's support to collate suitable IRF membership nominations, in conjunction with SIBER and IORP, to reinvigorate / reconstruct membership. The chairs of IORP and SIBER indicated that they would continue to present their 'resources' requests to the reconstituted IRF once it is formed.

Dr Ken Ando (on behalf of Prof Shirayama, IRF Member from Japan) sought an update on the proposed process to reconstitute the IRF. ND indicated that he would draft a proposal for consideration by the IRF's current membership.

Dr Rezah Badal sought information on the criteria that would be used for the reconstitution of IRF. ND indicated that the current criteria for membership were still valid – where essentially the IORP and SIBER members help source nominations for IRF Membership, in line with the fact that it is for their own needs and priorities that membership should be chosen.

The constitution of a renewed IRF membership was tasked to the IRF convener.

5. General discussion

Dr Shenoj, as Chair of IOGOOS, thanked IRF Convener ND for helping to revitalize the IRF and sought the Convener's help in focusing IRF's work, updating its ToR, consolidating its formal structure and processes, including calling for resource needs proposals / submissions from IORP and SIBER and encouraging IORP and SIBER to have those proposals submitted well ahead of each year's meetings so that optimal actions are possible in response to them.

Dr Ando noted that the TPOS Resources Forum (in comparison to IRF) was quite formal in nature, but that he felt that, in contrast, IRF could effectively remain less formal without necessarily needing face to face meetings.

Dr Shenoj agreed, noting that IndoOS and IRF had been in operation now for many years, had worked effectively under its current operating framework, and hence we should consider building on what we have, rather than making major changes.

ND pointed out that in the early years of IRF, the then Convener (the late Dr Gary Meyers) was funded by IOC PPO for the role, but with budget limitations these days, less is possible in terms of formal paid support. IOC PPO has taken on the role by providing the Convener from within PPO's resources (being ND at present). Albeit with less budget, much is being and can still be achieved via IRF.

Dr Ando, reflected on the IRF secretariat budgetary limitations, and noted that there seem to be many groups operating in the Indian Ocean marine space with seemingly overlapping objectives (eg IOGOOS, IOCINDIO, IORP, SIBER, IRF etc). He asked whether there could be efficiencies through synergies, amalgamations etc. ND pointed out that in adjacent regions (eg IOC WESTPAC) the situation, in reality, is probably not that different to that of the Indian Ocean. He pointed out that there were in fact similar frameworks, also involving many similar alliances and projects groups, but it is just that they (in terms of visibility and naming) were more embedded under the over-arching WESTPAC structure. Nonetheless, they also existed in operational terms as somewhat distinct groups, akin to what we see in the Indian ocean. Furthermore, the reality is that the collegiate of respective IO groups does in fact involve many objectives that are principally related to the respective groups' own missions, but with some programmatic and mission overlap amongst each other. Hence, it is the appropriate balance between independence and collaboration/mutuality that is needed.

6. Closing and actions

The meeting ended with a general agreement to revitalise IRF and to maintain it as a relevant structure for IndoOS, IORP, SIBER etc, as per its original objectives.

Action 8.1 (Convener): As an over-arching action item going forward, the Convener to facilitate (on behalf of IOGOOS and in liaison with IORP and SIBER) IRF's membership renewal and an examination

of its ToR as might be required to position it to best support a renewed IndOOS, in reference to the current IndOOS review process taking place and due to be finalised within the next 12 months or so.

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