

Brief Technical Report on

Integrated meetings of IOGOOS 15 annual meeting and its allied program meetings at Port Elizabeth, South Africa

March 11 – 15, 2019

Introduction

The IOGOOS 15th annual meeting was held at Port Elizabeth, South Africa under the theme of “International Indian Ocean Science Conference – 2019” during March 11 – 15, 2019. The meeting was held in conjunction with its allied projects Indian Ocean Research Panel (IORP), Sustained Indian Ocean Biogeochemistry and Ecosystem Research (SIBER), Indian Ocean Observing System (IndOOS) Resources Forum (IRF) and International Indian Ocean Expedition (IIOE-2) Steering Committee meetings. Also the side meetings of South Africa focused scientific sessions and IOCINDIO-7 were held during the occasion. The detailed agenda of the integrated meetings is provided at **Annexure 1**. The IIOE-2 SC meetings were held during the first two days followed by the business meetings of IORP, SIBER and the IndOOS Review. The IOGOOS 15th Annual general body meeting was held on March 15, 2019 where all the sub-groups have reported back to IOGOOS with the progress on the respective activities.

IOGOOS 15th Annual Meeting:

The IOGOOS 15th annual meeting was represented by the member countries from Australia, India, IOC, South Africa, USA, Leads of IORP and SIBER projects and other observers. Dr. S. S. C. Shenoi, Chair, IOGOOS welcomed the members and recollected the relevance of IOGOOS and its activities.

Dr. Nick D’Adamo, in his opening remarks thanked the IOGOOS secretariat and India for providing the resources required for hosting of the Secretariat as well as to carry out the secretariat activities.

Reporting to IOGOOS:

Report from IORP:

Dr. Lisa Beal provided the update on the IORP Members on panel and informed that new members from Korea and Germany were invited on the panel. IORP is presently leading the Indian Ocean Observing System decadal review with SIBER which is expected to be finalized by August 2019. IORP led and contributed to OceanObs’19 white papers on IndOOS, GCOS/GOOS, GO-SHIP, observing boundary currents. It is informed that RAMA - 2.0 has completed 90% of the planned moorings with the recent deployment of 3 moorings in the Arabian Sea in 2018. Dr. Beal also provided a brief on the Years of the Maritime Continent (YMC), Eastern Indian Ocean Upwelling Research Initiative (EIOURI) and Agulhas System Climate Array (ASCA). IORP is looking for new partners and sponsors for the Agulhas System Climate Array. Dr. Beal summarized the plans of IORP beyond 2019 that includes dissemination of the IndOOS Decadal Review with actionable recommendations

to various stakeholders as per implementation strategy. IORP will initiate a dialogue with IOGOOS and IRF for implementation of actionable recommendations towards a fit-for-purpose future observing system. SIBER is invited to form a joint panel with IORP. It is proposed to develop a multi-region panel workshop on “Challenges of Ocean Observing System Design and Implementation” (with Pacific, Northern, Southern, Atlantic Ocean Panels) for 2021.

Report from SIBER: Dr. Raleigh Hood, Chair of SIBER reported on the progress of SIBER. Dr. Hood presented the updates about the SIBER Science Steering Committee (SSC) and Executive Committee (EC) membership, updates related to SIBER website, Indian National SIBER Program, etc. Dr. Hood also briefed about the forthcoming Indian national programme entitled “Marine Observation System along Indian Coast (MOSAIC)”. Dr. Hood informed that SIBER SSC is working to motivate review papers based on the SIBER Science plan research themes. He summarized the biogeochemical sensor deployments made in the Indian Ocean. A pictorial representation was also shown about the coverage of Argo floats and BGC Argo floats. Briefed about the bio-argo deployments carried by Australia and India jointly in both the northern Indian Ocean and Southern Indian Ocean. A brief on YMC, EIOURI and RAMA Cruises update was presented as below.

- (i) The RV Ron Brown occupied GO-SHIP line (IO-7N), deployed and serviced RAMA mornings in spring / early summer of 2018, and contributed to IIOE-2 and YMC. Made SIBER BGC measurements.
- (ii) IIOE 110°E Repeat Line Cruise funded, a coupled bio-physical, ecosystem-scale examination of Australia’s International Indian Ocean Expedition line (Lynnath Beckley et al., will bring R/V Investigator to the Indian Ocean in spring / early summer 2019).
- (iii) Multiple South Korean Expeditions on *R/V Isabu* planned and funded. Focus on SCTR. Will support RAMA and participate in IIOE-2.
- (iv) US EIOURI cruise funded by NSF (Mike Landry et al.). Will bring UNOLS vessel to the eastern Indian Ocean in 2021. Research focus will be on the food web dynamics of the bluefin tuna spawning area.

Dr. Hood also briefed about the South Korea and US Led Research initiative focusing on the physical biogeochemical and ecological dynamics of the Seychells-Chagos Thermocline Ridge (SCTR). An update was provided on the US IIOE- Science Planning Workshop, IIOE WG1 on Science and Research Meeting held at GEOMAR Helmholtz center for Ocean Research at Kiel during November 28-30, 2018. Dr. Hood informed that as set of synthesis papers on IIOE-2 are being put together to publish as a special issue in the EGU Journals.

Report from IndOOS Resource Forum: Dr. Nick D’Adamo presented the convener’s report to IRF -9. Dr. Nick recalled that prior to the meeting a report on the 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. Was prepared on behalf of IOGOOS (as patron of IRF) and circulated to the members with revised Terms of Reference for IRF. It was informed that membership renewals were undertaken and further work will be carried out post-IRF-9 to reactivate the members. It was informed that there were suggestions for new members came from IORP and SIBER Members and Chair,

IOGOOS wrote to new invitees and the latest IRF Member list (as on March 09, 2019) is attached herewith at **Annexure 2**. Dr. Sidney Thurston, NOAA, USA was elected as the Chair, IRF replacing Dr. Nick D'Adamo who was acting in the role since the resignation of former Chair Dr. David Vousden.

Report on the status and progress of IIOE-2: IIOE-2 Steering Committee 3 meeting was held during March 12-13, 2019. IOGOOS Chair and Secretary and members attended the meeting.

Highlight and some key issues:

IIOE-2 Steering Committee agreed that IIOE-2 needs to be continued, through a statement at SC3 that will be minuted as follows:

“The IIOE-2 International Steering Committee, chaired by representatives of IOC, SCOR and IOGOOS, and comprising a diverse multi-national constituency, agreed to continue the mission of the IIOE-2 out to at least 2025, in order to build on the significant scientific achievements of IIOE-2 to date, the extension that will occur of many current and imminent major IIOE-2 research initiatives into the next decade, the expected emergence of many new major scientific initiatives well into the next decade strongly aligning with the IIOE-2 Science Plan, and in light of IIOE-2's clear alignment, relevancy and potential to make an important and substantive contribution to the UN Decade of Marine Science for Sustainable Development 2021-30.”

IIOE-2 will be profiled at the confirmed Indian Ocean Science Symposium 2020 scheduled to be held during March 16-20, 2019, Goa, India. International Scientific Organizing Committee being formed. Chair of IOGOOS also leading the processes for IOSS 2020. IOGOOS encouraged to engage in planning and conference per se. IOGOOS should make a quick decision on date and venue of its own next meeting (2020) – considering merits of meeting back to back with conference and also other groups that normally meet together (IIOE-2 SC, IORP, SIBR, IRF, IOCINMDIO)..

Report from the Modeling for Ocean Forecasting and Process Studies Project: Dr. Nick D'Adamo reported that there was no progress in MOFPS during the past year due to lack of budget. An update was given to recent GRA council and will be further profiled at the forthcoming JCOMM OCG 10 Meeting scheduled to be held at Jakarta on April 8, 2019. It is suggested that the MOFPS project to be kept on the IOGOOS projects list, with efforts to continue to try to funding and energize the concept into a project. As the objectives remain important and relevant, its relevance and potential in ongoing IIOE-2 may be considered.

Report from the Indian Ocean Core Remote Sensing Project: Mr. Nagaraja Kumar informed that as such there is no specific activity in this project. However, keeping in view of the earlier requests made by IOGOOS Member countries, various remote sensing data products for various countries are still being prepared and the same is accessible from INCOIS Website.

IOGOOS 15th Annual General Body Meeting:

Dr. Shenoi, Chair of IOGOOS presented his report to the annual meeting and Mr. M. Nagaraja Kumar, Secretary of IOGOOS presented the secretariat report and the accounts and financial summary of the Secretariat. The action taken report from the Secretariat is attached at Annexure 3.

Memberships: Mr. Nagaraja Kumar, Secretary, IOGOOS informed that there were no new membership requests. Mr. Kumar further informed that the IOGOOS Secretariat has put efforts to reactivate the membership of few non-active members. University of Zululand, South African Institute for Aquatic Biodiversity from South Africa and Agency for Assessment and Application of Technology (BPPT), Indonesian Institute of Science (LIPI), Ministry of Marine Affairs and Fisheries from Indonesia have joined back to the IOGOOS and are actively participating. The IOGOOS AGM has appreciated the member institutes for reactivating their membership and welcomed to the family of IOGOOS.

Election of Officers:

Mr. Kumar, Secretary, IOGOOS informed that the status of the present IOGOOS Officers positions has been notified prior to IOGOOS XV meeting and sought the nominations from the member institutes. The status of the officer positions is attached at Annexure ii. Dr. S. S.C. Shenoi was re-elected as the IOGOOS Chair and suggested that the nominations from other regions are to be sought out of session and the IOGOOS Secretariat was tasked to take up the same.

Hosting of IOGOOS Secretariat: Mr. Kumar informed that the term of IOGOOS secretariat being hosted by INCOIS, India is nearing to an end by November 2020. As per the MoU, a prior notification has been communicated to all the member institutes and sought the nominations for hosting of the IOGOOS Secretariat for the period 2021-2026. Mr. Kumar also informed that as of now, no nominations are received. The notification for hosting of the Secretariat is attached at Annexure iii.

Membership fees: Mr. Kumar informed that requests along with Invoices have been sent to IOGOOS member countries for remittance of the Annual Membership fee for the period 2017-18 and 2018-19. Few Member institutes are in the process of paying the fees where as contacts are to be established for few member countries as the original signed dignitaries are not available. Mr. Kumar also informed that Maldives Meteorological Services has requested for waive off the membership fees for 2017, 2018 and 2019 as they haven't thought of it and budget was not allocated. The IOGOOS AGM has agreed to waive off these membership fees.

Accounts and Financial Summary of IOGOOS by Secretariat: Mr. Nagaraja Kumar has presented the accounts and financial summary of the IOGOOS accounts. He briefed the

details of expenditures made and the income for the past one year. He requested Chair to nominate an officer for verification of the accounts and approve it. Chair nominated Dr. Nick D'Adamo and after verification of the accounts and statement of expenditures, Dr. Nick D'Adamo has approved the same. The statement of accounts and financial summary in USD currency is attached at Annexure iv.

Next meeting: It was proposed to hold the IOGOOS XVI annual meeting in conjunction with the IIOE-2 Science Symposium in Goa, India scheduled to be held during March 16-20, 2020. It is also re-iterated that all IOGOOS sub-project groups should meet together. Hence, it is suggested that IORP, SIBER, IRF groups also may join for the combined meetings in order to have productive meetings and to avoid multiple travels.

Acknowledgements

The IOGOOS Secretariat greatly acknowledges IOC/UNESCO for providing the necessary support through IOC Perth RPO for these integrated meetings of IOGOOS. We also would like to place on record the great support extended by IOC Perth Programme Office, Nelson Mandela University and its staff towards coordinating these integrated meetings and co-hosting the events. The IOGOOS Secretariat also thanks and appreciates government of South Africa and other African institutes & their staff for their support in hosting this important meeting and for providing the local support.

Annexure 1

Date (2019)	Meeting/Event	Principal contact person for general information on the meeting/event of the day
Mon 11 Mar	Opening Ceremony, SOLSTICE Robotics VIP Demonstration, South Africa / WIO Sessions	Mike Roberts Mike.Roberts@mandela.ac.za
Tue 12 Mar	IIOE-2 Steering Committee Meeting	Nick D'Adamo nick.dadamo@bom.gov.au
	SOLSTICE-led WIO Marine Robotics Workshop	Mike Roberts Mike.Roberts@mandela.ac.za
Wed 13 Mar	IIOE-2 Steering Committee Meeting	Nick D'Adamo nick.dadamo@bom.gov.au
	IOCINDIO-7	Justin Ahanhanzo (IOCINDIO Secretariat) J.Ahanhanzo@unesco.org
Thu 14 Mar	IndOOS Review Workshop	Jing Li jing.li@clivar.org
	IRF-9	Nick D'Adamo nick.dadamo@bom.gov.au
Fri 15 Mar	IORP-15	Jing Li jing.li@clivar.org
	SIBER-9	Raleigh Hood rhoo@umces.edu
	IOGOOS-15	Nagaraja Kumar raja@incois.gov.in

Annexure 2

IRF Membership as at 9 March 2019

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

For reference of IRF-9 meeting.

Comments by Convener (**in red**)

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	Yet to be advised
France	Prof Jean-Marie FLAUD Directeur de recherche CNRS-INSU 3 rue Michel-Ange 75794 Paris, France Email: jean-marie.flaud@cnrs.fr (multiple communications, incl recent email to J Vialard and F Marsac – no indication as yet on membership intentions)	Gérard Eldin (alternate) Délégué scientifique CNRS-INSU Email: gerard.eldin@cnrs-dir.fr (multiple communications, incl recent email to J Vialard and F Marsac – no indication as yet on membership intentions)
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	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

	Hyderabad - 500 090, India Email: shenoi@incois.gov.in	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). No reply as yet.
Indonesia	Pending – Convener corresponding with Zainal Arifin, Indonesian Institute of Sciences (LIPI)	Convener to contact: invite as 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 11111, 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 Laoshan District Qingdao, China, 266061 Email: jose.santos@clivar.org	Dr Jing Li Staff Scientist International CLIVAR Project Office First Institute of Oceanography, SOA Qingdao, China 266061 Tel: +86-532-88891090 Email: jing.li@clivar.org <u>(Jing Li advised by email to Convener prior to 22 Feb 2019 that Jose Santos was ICPO's replacement Member and that Jing Li was ICPO's alternate member). Subsequently formalised by a recent exchange of letters (Santos 4/Feb/19– Convener 23/Feb/19)</u>
IOC Perth Program Office	Dr Nick D'ADAMO, IRF Convener & 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 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	
IOGOOS	Prof Michael McPhaden NOAA Senior Scientist. NOAAPMEL Division: Ocean Climate Michael.J.Mcphaden@noaa.gov	
IOGOOS	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	
IOGOOS	Vacant (IOC Officer, to be advised).	
IOGOOS	Dr SomkiatKhokiattiwong IOGOOS Officer; Coordinator, South East Asia GOOS (SEAGOOS); Chair IOC Sub-Commission for the Western Pacific (IOC WESTPAC); Associate Officer IOGOOS	

	<p>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, Prime Minister's Office, Port Louis, Mauritius Mob: +230 57290150 Email: mrbadal@govmu.org</p>	

Annexure 3

IOGOOS Workshop and 15th Annual Meeting (IOGOOS-XV)

March 11 – 15, 2019 at Port Elizabeth, South Africa

Agenda Item of the Annual Meeting

Action Taken report from IOGOOS Secretariat Report

Sl. No.	Item	Status / Progress
1.	IOGOOS Annual Meeting	
1.1.	IOGOOS XIV Annual Report	<ul style="list-style-type: none"> Finalised and circulated the IOGOOS XIV Annual Report in collaboration with Officers and IOC Perth Office. Through the financial support of IOC UNESCO (USD 16219.50), about 08 delegates were sponsored (Australia, India, Madagascar, Mauritius, South Africa and USA).
1.2.	Conduct of IOGOOS XV	<ul style="list-style-type: none"> Notification, Invitations, Agenda, and Mobilization of funds for IOGOOS XV delegates participation.
2.	Governance	
4.1.	Membership – Re activation	<ul style="list-style-type: none"> Secretariat has sent out couple of emails to the non-active member institutes and also a reminder communication subsequently. However, except few institutes, there is no response from other member institutes. The details of the active and non-active members are attached herewith at Annexure i.
4.2.	IOGOOS Officers	<ul style="list-style-type: none"> The secretariat sent out the status paper and requested nominations for the positions of IOGOOS Chair and Officer. The status is attached as Annexure – ii. Will be discussed as Agenda Item of the Annual Meeting.
4.3.	IOGOOS Members	<ul style="list-style-type: none"> No new member has joined. We have requested KIOST to join as Associate

		member and awaiting their response.
4.4.	Hosting of IOGOOS Secretariat	<ul style="list-style-type: none"> INCOIS, India has hosted the IOGOOS Secretariat since its inception in November 2002. The Secretariat is ending by November 2020. Notification of the same to all member institutes has been made and the same is attached at Annexure –iii.
4.5.	IOGOOS Next meeting	<ul style="list-style-type: none"> It was proposed to hold the IOGOOS XVI annual meeting in conjunction with the IIOE-2 Science Symposium in Goa, India scheduled to be held during March 16-20, 2020.
5.	Finance	
5.1.	Membership Fees for 2017-18 and 2018-19	<ul style="list-style-type: none"> Requests along with Invoices have been sent to IOGOOS member countries for remittance of the Annual Membership fee for the period 2017-18 and 2018-19. Contacts are to be established for few member countries as the original signed dignitaries are not available. Few Member institutes are in the process of paying the fees. Maldives Meteorological Services has requested for waive off the membership fees for 2017, 2018 and 2019 as they haven't thought of it and budget was not allocated.
5.2.	Audit	<ul style="list-style-type: none"> Completed Financial Accounting and Audit. Statement of Account is being submitted for verification and approval. The same is tabled as Agenda Item of the Annual Meeting. The financial statement tabled for screening is attached herewith at Annexure iv.

Annexure i

List of Active and Non-Active Members of IOGOOS and present focal points

Sl. No.	Organization / Institution	Signatory	Focal Contact Persons	Address	Active / Non-active Status
1.	Bureau of Meteorology	Dr. Neville Smith	Dr Boris Kelly-Gerreyn Head, Observing Strategy Section, Observations & Infrastructure Division email: boris.kelly-gerreyn@bom.gov.au	Bureau of Meteorology 700 Collins Street, Docklands, VIC 3008 T : +61 (3) 9669 4183 M: +61 (0) 417 912 516	Active
2.	CSIRO – Australia	Dr. Gary Meyers	Dr. Andreas Schiller Deputy Chief, Marine, CSIRO Marine and Atmospheric Research - Hobart Andreas.Schiller@csiro.au	GPO Box 1538 Hobart 7001 Australia Tel: 61362325208 Fax: 61362325123	Active
3.	Indian National Centre for Ocean Information Services	Dr. K. Radhakrishnan	Dr. S. S. C. Shenoi, Director shenoi@incois.gov.in	"Ocean Valley", Pragathi Nagar BO, Nizampet SO, Hyderabad - 500 090, India Tel: 00914023895000 Fax: 00914023895001	Active
4.	National Institute of Oceanography	Dr. Ehrlich Desa	Dr K. Sunil Singh. Director sunil@nio.org	Dona Paula Goa 403004 India Tel: 0091 832 2450200 Fax: 0091 832 2450602 Mob:	Active
5.	National Institute of Ocean Technology	Prof. M. Ravindran	Dr. Atmanand, Director director@niot.res.in / atma@niot.res.in	Pallikaranai, Chennai-601302 India Tel: 0091-44-2461029 Fax: 0091-44-2460275	Active
6.	Intergovernmental Oceanographic Commission	Dr. William Erb	Dr. Nick D'Adamo Head, IOC Perth Email: n.D'Adamo@bom.gov.au Nick.D'Adamo@bom.gov.au	IOC Perth Regional Program Office, PO Box 1370 Perth WA 6872 Australia Tel: 61 08 9226 2899	Active

			u	Fax: 61 08 9226 0599	
7.	Iranian National Institute for Oceanography and Atmospheric Science (INIOAS)	Dr. Nasser Hadjizadeh Zaker	Dr. Behrooz Abtahi, Director inioas@inio.ac.ir	No.3, Etemad Zadeh St., Fatemi Ave., Tehran, IR. Iran Postal Code: 1411813389 Post Box: 14155-4781 Tel: (0098)21-66944873-5 Fax: (0098)21-66944869 Web site: http://www.inio.ac.ir	Active
8.	Kenya Marine & Fisheries Research Institute	Dr. Johnson Kazungu	Prof. James M. Njiru (PhD), Director Email: director@kmfri.co.ke or kmfridirector@gmail.com	Kenya Marine and Fisheries Research Institute Headquarter and Mombasa Centre P.O. Box 81651 080100 Mombasa, KENYA Tel: +254 (041)475151/4 Wireless: +254 (020) 8021560/1 Fax: +254 (041) 475157	Non-Active
9.	Laboratoire ECOMAR, Université de La Réunion	Prof. Chantal Conand	Prof. Henrich Bruggemann Professor Email : henrich.bruggemann@univ-reunion.fr ecomarse@univ-reunion.fr	Université de La Réunion 15 Avenue René Cassin CS 92003 97744 ST DENIS CEDEX 9 FRANCE phone 02 62 93 86 86	Non-Active
10.	Mauritius Oceanography Institute, Mauritius	Mr. Harry Ganoo	Dr. Ruby MOOTHIE PILLAY,, Officer-In-Charge., Email: moi@intnet.mu / rubykm@moi.intnet.mu	Mauritius Oceanography Institute, 4th Floor, France Centre, Victoria Avenue, Quatre Bornes, Mauritius Tel: 230 427 4434 Fax: 230 427 4433	Active
11.	INAHINA	Dr. Albano Gove	Dr. Augusto Bata, Director augustobata@yahoo.com.br	Av. Karl Marx No. 153 PO Box No. 2089, Maputo	Non-Active

			mutevuie@inahina.gov.mz	Mozambique Tel: 258 1 430 186/8 Fax: 258 1 430 185 www.cfm.co.mz	
12.	South African National Committee for IOGOOS	Prof. Mark R. Jury	Dr Nkanyiso Mbatha Email: MbathaNB@unizulu.ac.za nkanyisombatha5@gmail.com	Dept. of Geography & Hydrology University of Zululand PB X 1001 Kwa-Dlangezwa 3886 Tel: +27 35 902 6400 Fax: +27 35 193420 C: +27 723995436	Active
13.	National Aquatic Resources Research & Development Agency (NARA)	Dr. T. Kamal Dharmasiri Tennakoon	Dr Kamal Dharmasiri TENNAKOON Email: tkdkamal@hotmail.com Dr. K. Arulananthan, Head, National Institute of Oceanography Marine Sciences arul@nara.ac.lk	Crow Island, Colombo 15 Sri Lanka Tele: +94-11-2521008	Active (Partly)
14.	NOAA Office of Global Programs	Dr. Sidney Thurston	Dr Sidney THURSTON Program Manager Email: Sidney.Thurston@noaa.gov	NOAA Climate Program Office Phone: +1-301-427-2459 FAX: +1-301-427-0033 www.climate.gov www.economics.noaa.gov/?goal=climate	Active
15.	South African Institute for Aquatic Biodiversity	Dr. Anthony J. Ribbink	Dr Anthony RIBBINK Programme Manager Email: a.ribbink@ru.ac.za (Rhodes university) Dr. Angus Paterson, Managing Director a.paterson@saiab.ac.za / saiab@saiab.ac.za Alternative contact : Mr Ryan Palmer R.Palmer@saiab.ac.za	Somerset Street, Private Bag 1015 Grahamstown 6139 / 6140, Eastern Cape, South Africa Tel: +27-46-603 5800 Fax: +27-46-603 5825 Ph: +27 83 2754407 (Dr. Angus Paterson)	Active
16.	University of Port Elizabeth	Prof. Dan Baird	Prof. Dan Baird Email: zladdb@zoo.upe.ac.za Contacted	Department of Zoology P.O. Box 1600, Port Elizabeth 6000 South Africa	Non-Active

			Prof Andrew Leitch DVC: Research and Engagement Nelson Mandela University, 17th Floor, Main Building, South Campus PO Box 77000, Port Elizabeth 6031 Telephone: +27 (0)41 504 2017 Email: Andrew.Leitch@mandela.ac.za	Tel: +2741504341 Fax: +27418042317	
17.	Durban School of Life and Environment Sciences	Prof. Anthony Forbes	Prof Anthony Forbes Professor Department of Zoology Email : forbesa@biology.und.ac.za	University of Natal Durban 4041 South Africa Tel: +270312603183 Fax: +270312603183	Non-Active
18.	Curtin University	Prof. Mervyn John Lynch	Prof. Mervyn John LYNCH Professor Email : m.lynch@curtin.edu.au	P.O. Box 41987 Perth, WA 6006 Australia Tel: 61892667540 Fax: 61892662377	Non-Active
19.	Institut Halieutique & des Sciences Marines	Dr. Man-wai Rabenevana	Dr Thierry Lavitra Director Email : lavitra_thierry@yahoo.fr ihsm@syfed.refer.mg	Institut Halieutique et des Sciences Marines (IHSM), BP 141 - Route du Port, Avenue De France, Tuléar 601, Madagascar Tél: 00 261 (0) 20 94 941 67 In English Fisheries and Marine Science Institute, PO Box 141 - Port Road, Avenue De France, 601 Tulear, Madagascar Tel: 00 261 (0) 20 94 941 67	Active
20.	Indian Space Reserach Organisation	Dr. V. Jayaraman	Dr. Shantanu Bhatwade bpshantanu@isro.gov.in	Earth Observation Systems, ISRO Head Quarters Bangalore INDIA	Active
21.	University	Prof.	Dr. M.S. Kyewalyanga	Institute of Marine	Active

	of Dar es Salaam	Alfonse M. Dubi	Director, director@ims.udsm.ac.tz maggie@ims.udsm.ac.tz	Sciences P.O. Box 668 ZANZIBAR, TANZANIA Tel. +255 24 223 2128 +255 24 223 0741 (office) +255 24 223 4175 (res.) Fax: +255 24 223 3050 Mobile: +255 744 462 417	(Partly)
22.	Agency for Assessment and Application of Technology (BPPT)	Dr. Jana T. Anggadiredja	Mr. Muhammad Ilyas m.ilyas@bppt.go.id	BPPT Building I - 18th Floor Jl.M.H. Thamrin 8 - Jakarta 10340, INDONESIA	Active
23.	Indonesian Institute of Science (LIPI)	Dr. Jan Sopaheluwan	Mr. Augy Syahailatua augy.lipi@gmail.com	Jl. Gatot Subroto Jakarta INDONESIA	Active
24.	Ministry of Marine Affairs and Fisheries	Dr. Indroyono Soesilo	Dr. Anastasia Rita Tisiana Dwi Kuswardani anastasia.tisiana@gmail.com Mr. Riyanto riyanbas@yahoo.com	Agency for Marine and Fisheries Research Jl Letjen M.T. Haryono Kav. 52-53 Jakarta 12770 INDONESIA Tel/Fax. +62 21 79180458	Active
25.	MERCATOR	Dr. M. Francois Gerard	Dr. M. Francois Gerard Charge de Mission pour les Affaires Oceanographiques Email : francois.gerard@meteo.fr	Meteo France - Direction de la Meteorologie Nationale, 1, quai Branly 75347 Paris Cedex 07 FRANCE Tel. +33 (0)1 45 567011 Fax: +33 (0)1 45 567005	Non-Active
26.	Maldives Meteorological Service	Dr. Ali Shareef	Dr. Ali Shareef Deputy Director General Email: shareef@meteorology.gov.mv alisharyf@gmail.com	Hulhule' 22000, Maldives. Phone: +960 332 6200 Cell:+960 7771828 Fax: +960 332 0021	Active

			Dr. Abdulla Wahid Director General Meteorology Maldives Meteorological Services Hulhule , 22000 Maldives Tel: + 960 3325766 Fax: + 960 332 0021 Email: admin@meteorology.gov. mv		
27.	Bay of Bengal Large Marine Ecosystem (BOBLME)	Dr. Chris O'Brien	Dr. Chris O'Brien Regional Coordinator Email: chris.obrien@fao.org	FAO Regional Office for Asia and the Pacific, Maliwan Mansion, 39 Phra Atit Road, Bangkok 10200, Thailand	Non-Active
28.	Institute of Marine Sciences and Fisheries	Dr. Md. Ashraful Azam Khan	Dr. Mohammad Zahedur Rahman Chowdhury Director & Associate Prof. zahedims@cu.ac.bd director.imsf@cu.ac.bd Cell: +8801711788270	University of Chittagong, Chittagong-4331, Bangladesh Tel: +88-031-726311~14, 716552, +88-031-710347 Fax: +88-031-726310	Active
29.	Kuwait Institute for Scientific Research	Dr. Naji M. Al-Mutairi	Dr. Faiza Al-Yamani Executive Director Environment and Life Sciences Research Center Email: faizayamani@gmail.com	P.O.Box 24885 Safat 13109 Kuwait Tel: +965-24989320/21 Fax: +965-24989319	Active

29 institutes from 17 countries (including IOC and BOBLME)

Notification for the position of IOGOOS Chairman and Officers

Rules for Nomination of IOGOOS Chair / Officers:

- The Officers should be broadly representative of the regions of the Indian Ocean. viz. Central Indian Ocean, East Africa, Eastern Indian Ocean, Southern Africa and Indian Ocean Islands. **Now the regions have been changed to Eastern Indian Ocean, Central Indian Ocean and Western Indian Ocean. And representatives from the IOGOOS Projects**
- Officer shall serve in an individual capacity for a period of 2 years, up to a maximum of two terms. With the unanimous agreement of all members, in exceptional cases, an Officer can be extended for a further term of 2 years.
- If an Officer does not attend two consecutive Annual Meetings, the position of that Officer will be considered vacant and an election will be conducted for the position.
- If an Officer resigns, the position shall remain vacant until the next Annual Meeting. However, if the Chair is unable to serve, one of the Officers will be nominated by the Officers, to act as a Chair, till next Annual Meeting.
- IOGOOS Secretariat shall notify to all Members about the vacancies of the posts (Chair / Officers) and request nominations from members for the position of Chair of IOGOOS and for other Officers three months prior to the Annual Meeting.
- In the event of more nominations than vacant Officer Positions, an Election Return Officer, who is not a voting Member, shall be appointed, to oversee the election. Each member shall have a number of votes equal to the number of vacancies.

IOGOOS Chair and Officers: The following is the status of the Tenure of Chair and Officers of IOGOOS:

Term	2012-14	2014-16	2016-18	2018-20	Representation and present Role
Chair	Dr. Andreas Schiller	Dr. Andreas Schiller Completed three terms of 2 years	Vacant	Nominations are Invited	Eastern Indian Ocean IOGOOS Officer
Officer	Dr. Rezah Badal	Dr. Rezah Badal	Dr. Rezah Badal Completed three terms of 2 years	Nominations are invited	Western Indian Ocean IOGOOS Officer
Officer	Dissolved				

Officer	T. Srinivasa Kumar	T. Srinivasa Kumar	Dr. S. S. C. Shenoi	Dr. S. S. C. Shenoi Eligible for extension for the second term of 2 years Nominations are Invited	Central Indian Ocean Chair, IOGOOS
Officer	Dr. Somkiat Khokiattiwong	Dr. Somkiat Khokiattiwong	Dr. Somkiat Khokiattiwong Completed three terms of 2 years	Nomination to be sent by SIBER	SIBER Representative IOGOOS Officer
Officer	Dr. Yukio Masumoto	Dr. Mike Mcphaden	Dr. Mike Mcphaden	Dr. Mike Mcphaden Eligible for extension for 2 years with unanimous agreement of all members. Nomination to be sent by IOP	IOP representative IOGOOS Officer

- Dr. S.S.C.Shenoi has served for one term of 2 years as Officer and he is eligible for the second term.
- Dr. Rezah Badal served three terms of two years and his post is vacant
- Dr. Somkiat Khokiattiwong has completed three terms of 2 years and his post is vacant Nominations has to be forwarded by SIBER.
- Dr. Mike McPhaden has served

Prior Notification for Hosting of the IOGOOS Secretariat and Selection of Secretary, IOGOOS

IOGOOS Secretariat: The status of hosting of IOGOOS Secretariat is as follows:

. Term	2002 – 2008	2009 – 2014	2015 – 2020	2020-2025
Secretariat	INCOIS, India	INCOIS, India	INCOIS, India	Location of Office may be rotated after six years from one Member to another by agreement of Members at an Annual Meeting
Secretary	Dr. T. Srinivasa Kumar	Mr. M. Nagaraja Kumar	Mr. M. Nagaraja Kumar	To be Nominated by IOGOOS Officers
(2008-2009: Dr. T. Srinivasa Kumar and Mr. M. Nagaraja Kumar has worked as Co-Secretaries)				

Criteria for hosting the IOGOOS Secretariat:

The host agency has to a leading oceanographic research establishment in the Indian Ocean region and is expected to provide and bear the cost of the following facilities to host the IOGOOS Secretariat:

- Nominating a Secretary for provision of administrative (communication and information exchange, travel planning, meetings, staff agenda organization, arrangements for shipping) and technical support (pursue decisions of the annual meetings and coordinate Inter-sessional activities related to IOGOOS Pilot Projects)
- Provision of Office Space for Secretariat Staff
- Provision of Computers and Communication facilities such as Telephone, Fax, and Internet
- Providing accommodation, support services, and/or professional staff
- Hosting and Management of IOGOOS Website
- Collection of Annual Membership fee, maintenance of Bank Account and issue of audited annual financial statements
- Support day-to-day functioning of the Office by following the practices of the host Agency

The nominations for hosting the Secretariat will be tabled for discussion in the IOGOOS 16th Annual Meeting.

INDIAN OCEAN GLOBAL OCEAN OBSERVING SYSTEM (IOGOOS)
"OCEAN VALLEY", PRAGATHI NAGAR (BO), NIZAMPET (SO), HYDERABAD-500 090, INDIA

Receipts and Payments Account for the period from April 01, 2018 to February 13, 2019

Receipts	Amounts (INR)	Payments	Amount (INR)
Opening Balances:			
i) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022355	6,55,390.00	Paid to Peter Dexter towards reimburse of airfare, reg.fee, and DSA for Jakarta Meeting	97,273.00
ii) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022346	21,80,856.50	Bank charges towards Paid to Peter Dexter towards reimburse of airfare, reg.fee, and DSA for Jakarta Meeting	1,946.00
Received form IOC/UNESCO towards balance amount of Sponsorship of IOGOOS for Jakarta Meeting	1,23,529.00	Paid to Bureau of Meterology towards Jakarta Meeting	1,17,306.00
Interest received from savings accounts at Banks	70,578.00	Paid to Balmer Lawrie towards air ticket purchase for Jakarta Meeting	2,74,661.00
	-	Other Bank charges(IMPS+NEFT)	929
Amount refunded after paying DA, etc to participants of Hosting of IOGOOS 14th Annual meeting at Jakarta, Indonesia during March 18-23,2018. refunded by Mr.Nagaraja Kumar(USD2220)	1,40,126.00	Bank Charges towards Payment to Bureau of Meterology towards Jakarta Meeting	1966
IOGOOS Annual Membership	-		
Credit of difference in foreign currency		Bank Charges	660.00
		CLOSING BALANCES:	
		i) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022355	6,72,552.00
		ii) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022346	20,03,186.50
Total	31,70,479.50	Total	31,70,479.50

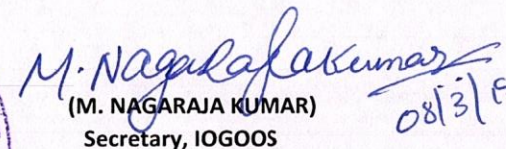
(Exchange rate 1USD=INR 69.89)



(S. NAGESWARA RAO)
Sr. Accounts Officer, INCOIS

S. Nageswara Rao
Senior Accounts Officer





(M. NAGARAJA KUMAR)
Secretary, IOGOOS

INDIAN OCEAN GLOBAL OCEAN OBSERVING SYSTEM (IOGOOS)
"OCEAN VALLEY", PRAGATHI NAGAR (BO), NIZAMPET (SO), HYDERABAD-500 090, INDIA

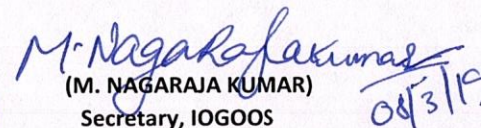
Receipts and Payments Account for the period from April 01, 2018 to February 13, 2019

Receipts	Amounts (USD)	Payments	Amount (USD)
Opening Balances:			
i) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022355	9,377.45	Paid to Peter Dexter towards reimburse of airfare, reg.fee, and DSA for Jakarta Meeting	1,391.80
ii) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022346	31,204.13	Bank charges towards Paid to Peter Dexter towards reimburse of airfare, reg.fee, and DSA for Jakarta Meeting	27.84
Received form IOC/UNESCO towards balance amount of Sponsorship of IOGOOS for Jakarta Meeting	1,767.48	Paid to Bureau of Meterology towards Jakarta Meeting	1,678.44
Interest received from savings accounts at Banks	1,009.84	Paid to Balmer Lawrie towards air ticket purchase for Jakarta Meeting	3,929.90
	-	Other Bank charges(IMPS+NEFT)	13.2923165
Amount refunded after paying DA, etc to participants of Hosting of IOGOOS 14th Annual meeting at Jakarta, Indonesia during March 18-23,2018. refunded by Mr.Nagaraja Kumar(USD2220)	2,004.95	Bank Charges towards Payment to Bureau of Meterology towards Jakarta Meeting	28.12991844
IOGOOS Annual Membership	-		
Credit of difference in foreign currency		Bank Charges	9.44
		CLOSING BALANCES:	
		i) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022355	9,623.01
		ii) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022346	28,661.99
Total	45,363.85	Total	45,363.85

(Exchange rate 1USD=INR 69.89)


(S. NAGESWARA RAO)
 Sr. Accounts Officer, INCOIS
S. Nageswara Rao
 Senior Accounts Officer




(M. NAGARAJA KUMAR)
 Secretary, IOGOOS
 04/3/19

INDIAN OCEAN GLOBAL OCEAN OBSERVING SYSTEM (IOGOOS)
"OCEAN VALLEY", PRAGATHI NAGAR (BO), NIZAMPET (SO), HYDERABAD-500 090, INDIA

Receipts and Payments Account for the period from March 16, 2018 to March 31, 2018

Receipts	Amounts (INR)	Payments	Amount (INR)
Opening Balances:			
i) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022355	6,55,420.00		-
ii) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022346	12,49,273.50		-
	-		-
	-		-
Sponsorship amount credited to IOGOOS Secretariat Account towards first installment from IOC/UNESCO	9,31,583.00	Other Bank charges(IMPS+NEFT)	-
	-		-
IOGOOS Annual Membership	-		
Credit of difference in foreign currency		Bank Charges	30.00
		CLOSING BALANCES:	
		i) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022355	6,55,390.00
		ii) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022346	21,80,856.50
Total	28,36,276.50	Total	28,36,276.50

(Exchange rate 1USD=INR 69.89)

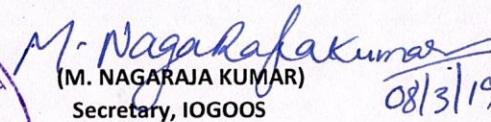


(S. NAGESWARA RAO)
Sr. Accounts Officer, INCOIS

Place: HYDERABAD
Date : 08/03/2019

S. Nageswara Rao
Senior Accounts Officer




(M. NAGARAJA KUMAR)
Secretary, IOGOOS

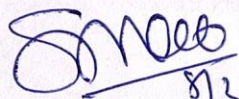
08/3/19

INDIAN OCEAN GLOBAL OCEAN OBSERVING SYSTEM (IOGOOS)
"OCEAN VALLEY", PRAGATHI NAGAR (BO), NIZAMPET (SO), HYDERABAD-500 090, INDIA

Receipts and Payments Account for the period from March 16, 2018 to March 31,2018

Receipts	Amounts (USD)	Payments	Amount (USD)
Opening Balances:			
i) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022355	9,377.88		-
ii) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022346	17,874.85		-
	-		-
	-		-
Sponsorship amount credited to IOGOOS Secretariat Account towards first installment from IOC/UNESCO	13,329.27	Other Bank charges(IMPS+NEFT)	-
	-		-
IOGOOS Annual Membership	-		
Credit of difference in foreign currency		Bank Charges	0.43
		CLOSING BALANCES:	
		i) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022355	9,377.45
		ii) Andhra Bank, Pragathi Nagar Branch, Hyderabad, Account No.171410100022346	31,204.13
Total	40,582.01	Total	40,582.01

(Exchange rate 1USD=INR 69.89)



(S. NAGESWARA RAO)
Sr. Accounts Officer, INCOIS

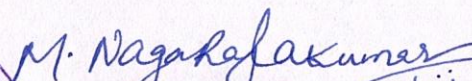
S. Nageswara Rao

Senior Accounts Officer

Place: HYDERABAD

Date : 08/03/2019




(M. NAGARAJA KUMAR)
Secretary, IOGOOS
 08/3/19