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وزارت امور خارجه

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پیوست : دارد

به نام خدا

جناب آقای سالار آملی، قائم مقام محترم وزیر و رئیس مرکز همکاری های علمی و بین المللی وزارت علوم،  
تحقیقات و فناوری

جناب آقای سرایی، مدیرکل محترم ترانزیت، لجستیک و توافقنامه ها، سازمان بنادر و دریانوردی  
جناب آقای سید محمد صادق قنبرزاده مدیرکل محترم حوزه ریاست، روابط عمومی و امور بین الملل سازمان  
نقشه برداری

موضوع: ترتیبات اداری و گزارش توجیهی کارگاه آموزشی **Earth Observation for an Indian Ocean**

**Blue Economy** در اتحادیه IORA

با سلام و احترام،

پیرو نامه شماره ۹۰۵۹۲۹ مورخ ۲۹ / ۶ / ۱۴۰۰ در خصوص کارگاه آموزشی **Earth Observation for an Indian Ocean Blue Economy** توسط مرکز کربن آبی استرالیا، سفارت فرانسه و با همکاری اتحادیه آیورا در تاریخ ۲-۴ آذرماه ۱۴۰۰، به پیوست یادداشت دبیرخانه حاوی لینک ثبت نام آنلاین، ترتیبات اداری و گزارش توجیهی کارگاه فوق حاوی پیشینه موضوع، اهداف و برنامه ارسال می گردد. کشورهای عضو می توانند حداکثر پنج نفر با قابلیت هایی در زمینه سیاست گذاری، مدیریت و استفاده از منابع ساحلی، برنامه ریزی دریایی، نقشه برداری، آلودگی و زباله های دریایی و تغییرات زیست محیطی را معرفی نمایند. مهلت معرفی نماینده ۱۴ آبان ماه سال جاری است. خواهشمند است دستور فرمایند اقدامات مقتضی معمول و از نتیجه این اداره کل را مطلع نمایند.

سید جلال الدین علوی سبزواری

مدیر کل دفتر همکاری های اقتصادی چند جانبه و بین المللی



## IORA INDIAN OCEAN BLUE CARBON HUB EARTH OBSERVATION FOR AN INDIAN OCEAN BLUE ECONOMY

23<sup>RD</sup> – 25<sup>TH</sup> NOVEMBER 2021

### ADMINISTRATIVE ARRANGEMENTS

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Dear Delegate,

We look forward to welcoming you to the Indian Ocean Rim Association (IORA) Indian Ocean Blue Carbon Hub workshop on 'Earth Observation for an Indian Ocean Blue Economy', to be held online for three consecutive days on the 23<sup>rd</sup> to 25<sup>th</sup> November 2021. The Hub aims to build knowledge and capacity to protect and restore blue carbon ecosystems throughout the Indian Ocean, in a way that enhances livelihoods, reduces risks from coastal hazards, and helps mitigate climate change.

IORA Member States (MS) have a strong interest in developing their blue economies, as well as IORA Dialogue Partners, who are also seeking to exploit the resources that the Indian Ocean contains, both on the High Seas and in Exclusive Economic Zones. However, relevant infrastructure, capacities and technical knowhow are limited. To develop their blue economies, this workshop seeks to bring Earth Observation (EO) providers together with IORA MS representatives to discuss user needs and develop opportunities that bring high-quality, up-to-date and comprehensive EO capabilities and products.

Please find below information related to the logistics of the event.

#### 1. Contact details of the organising team

Please contact the organising team for all questions about registration for the think-tank:

- **Lauren Hardiman** Operations Manager, IORA Blue Carbon Hub [lauren.hardiman@csiro.au](mailto:lauren.hardiman@csiro.au)  
T: +61 7 3214 2349 (AEST) UTC+10:00
- **Dr Andy Steven**, Strategy & Impact Portfolio Leader – Blue Growth, CSIRO [andy.steven@csiro.au](mailto:andy.steven@csiro.au)

#### 2. Venue

The workshop will be held on a virtual platform (hosted by [GEMS event management](#) with a [Zoom](#) format).

The details on how to access the event will be emailed directly to registered participants.

#### 3. Event times

- 07:00 - 12:00 South African Standard Time (SAST)
- 09:00 – 14:00 Mauritius Time (MUT)
- 15:00 - 20:00 Australian Eastern Standard Time (AEST)

#### 4. Registration

We welcome participation by all Member States and Dialogue Partners. We suggest that Member States can nominate a maximum of five (5) representatives: policymakers and practitioners from government or civil society with responsibility for developing or implementing policies and actions and use EO to help make decisions regarding management and use of coastal resources and protection. Technical experts are also included in the nomination in a relevant fields such as marine spatial planning, coastal habitat mapping, fisheries, coastal protection and

preparedness, marine pollution and litter and environmental and climate change, and encourage their participation throughout the workshop and in technical the training workshops that will occur on the third day. We encourage nominations of female participants to ensure gender balance.

All delegates must complete the online registration at: <https://gems.eventsair.com/csiro-earth-observation-for-the-indian-ocean-workshop/registration>.

Online registration will close on **Friday 5th November**.

All Member State and Dialogue Partner nominations must be endorsed by the relevant National Focal Point.

**Please note:** Once the registration has been received, you will be sent a confirmation email from the event organisers.

## 5. Agenda

The agenda will comprise a set of expert presentations, panel discussions, open-forum discussions and training sessions (a preliminary draft agenda is appended below).

In addition to MS representatives EO providers and experts will also attend to present and engage in the thematic sessions.

We recognise that some delegates might wish to take the opportunity to hold online side meetings during the event. We encourage this and are willing to facilitate such meetings. If assistance is needed please contact Lauren Hardiman ([lauren.hardiman@csiro.au](mailto:lauren.hardiman@csiro.au)).

## 6. Pre event questionnaire

Prior to the event a questionnaire will be sent via email to Member States and Dialogue Partners once they have registered to gain an understanding regional thematic EO needs and to identify the similarities and differences between the Member States. The results of the questionnaire will help frame the workshop and will be delivered at the start of the meeting. The deadline for questionnaire submissions is **Friday 12<sup>th</sup> November**.

## 7. General guidelines for a virtual event

Participants are encouraged to log in 30 minutes before the start of the meeting to ensure the success of their registration and to solve any technical difficulties that emerge.

Participants are encouraged to upload a clear portrait photo of themselves upon registering or prior to the meeting. This can be done through the registration link under the virtual profile section and on the online portal that will be sent to all participants prior to the workshop.

Please note that all participants will remain on mute upon entering the online session.

Participants must click the “raise hand” function displayed on the screen to share ideas, ask questions, and contribute to the discussions. The workshop organisers will unmute the participant after being directed by the chair, please wait for the organisers to unmute before speaking.

Before speaking, please provide your name, title, and country. Please speak in a measured and clear fashion.

Ensure the strength of the WiFi connection and its stability before joining the meeting.

Sit away from noisy places and avoid having backgrounds with too much light (windows, other forms of lighting).

Refrain from using external speakers while talking, as it creates audio difficulties while the participant’s microphone is open.

During breaks between sessions, all participants will remain logged on to the online portal without audio and video. A timer will be reflected on the screen so that participants are made aware of the exact timing of the next session.

## 8. Other Information

### Languages

English will be the main working language during the workshop.

### Online technical assistance

The IORA Blue Carbon Hub will be delivering training to all speakers prior to the event to ensure minimal technical difficulties. This will include training, information and support to present at the event using the virtual software. The organising committee will also provide an opportunity to rehearse and test all presentations. There will also be assistance throughout the event if any technical difficulties are encountered.

### Attire

Neat casual or business attire is appropriate.

A virtual background will also be provided to all participants. This will be distributed via email prior to the event.

## 9. Draft Program

<b>Day 1: 23<sup>rd</sup> November 2021 07:00 – 12:00 SAST</b>
Virtual Meeting Platform Open Access [Testing Phase]
Opening Session. Opening Remarks, housekeeping
Session 1: User needs (results from pre event questionnaire)
Session 2: Overview of EO Capabilities and servers
<b>Day 2: 24<sup>th</sup> November 2021 07:00 – 12:00 SAST</b>
Virtual Meeting Platform Open Access [Testing Phase]
Session: 3 Thematic Breakout session – Discuss needs and opportunities
Session 4: Plenary discussion – summaries from the thematic discussions
<b>Day 3: 25<sup>th</sup> November 2021 07:00 – 12:00 SAST</b>
Virtual Meeting Platform Open Access [Testing Phase]
Session 5: Breakout session- Earth Observation Training sessions
Open discussion and focused discussion sessions on the way forward, followed by closing remarks

# *INDIAN OCEAN RIM ASSOCIATION*

File No.:BE 2021 W

Note No: MSs.2021.210

The Secretariat of the Indian Ocean Rim Association (IORA) presents its compliments to the **IORA Member States** and has the honour to refer to the Workshop on “Earth Observation for an Indian Ocean Blue Economy”, which will be held virtually on 23-25 November 2021.

The virtual workshop will be co-hosted by the IORA Blue Carbon Hub (Australia) and the French Embassy, in collaboration with the IORA Secretariat. A copy of the draft concept note and the administrative note for the above-mentioned Workshop for the consideration of the esteemed Ministry.

In view of the above, it would be highly appreciated if the **Member States** could nominate their participants **by latest 5 November 2021.**

Nominated participants are requested to complete the online registration at: <https://gems.eventsair.com/csiro-earth-observation-for-the-indian-ocean-workshop/registration>.

Member States can nominate a maximum of five (5) representatives: policymakers and practitioners from government or civil society with responsibility for developing or implementing policies and actions and use EO to help make decisions regarding management and use of coastal resources and protection.

Technical experts can also be included as part of the nominations from Member States, including in the relevant field such as marine spatial planning, coastal habitat mapping, fisheries, coastal protection and preparedness, marine pollution and litter and environmental and climate change

In view of the above, it would be highly appreciated if **Member States** nominate their participants **by latest 5 November 2021.**

The Secretariat of the Indian Ocean Rim Association avails itself of the opportunity to renew to the **IORA Member States** the assurances of its highest consideration.

Mauritius, 13 October 2021

**IORA Member States**

2 Annexures



## **IORA Indian Ocean Blue Carbon Hub**

### **Earth Observation for an Indian Ocean Blue Economy**

*Concept Note*

*Date: 23-25 November 2021*

*Location: Online*

#### **Background**

IORA Member States (MS) have a strong interest in developing their blue economies. Other state actors (including IORA Dialogue Partners) are also seeking to exploit the resources that the Indian Ocean contains, both on the High Seas and in Exclusive Economic Zones. The Indian Ocean is vast (~70.6 million km<sup>2</sup>), and infrastructure is relatively limited, so Earth Observation (EO) will be an essential tool to develop solutions to the multiple challenges. Among these challenges, food security, climate change and sustainable use of coastal ecosystems, are common to all IORA MS. Satellite EO has become more advanced, available and accessible with the development of products for informed and improved decision-making to address these challenges.

To develop their blue economies, IORA MS would benefit from access to high-quality, up-to-date and comprehensive EO capabilities. Such access provides the information for a range of national environmental planning, mapping and assessment needs (e.g. blue carbon stocks, coral reef condition), as well as reporting obligations, such as on progress towards Paris Agreement and Sustainable Development Goal targets. It would also enhance operational surveillance (e.g. illegal unreported and unregulated fishing, piracy) and forecasting of conditions and hazards (e.g. sea level rise, extreme events, coral bleaching).

Combining EO with modern data processing and big-data analytic technologies, such as cloud-computing, offers unprecedented opportunities to assist with rapid evidence-based decision-making and policy development. Emerging 'remote', cloud-based data archive and processing approaches would significantly reduce the need for very high band-width internet access, which would be a significant benefit for the multiple IORA MS where this is not yet possible. While an increasing amount of EO data is becoming freely available, there remain challenges related to coverage of ocean areas, adequacy of spatial and temporal resolution, different needs of continental and island states, and delivery of data to nations with limited telecommunications infrastructure.

Much EO data available is now freely accessible but it is often not in a form that can be used by non-experts. In other cases, free EO data may not be of a high enough resolution to be useful, particularly for low-lying small island states. A range of new satellite capabilities (which have increased the spatial, temporal and spectral resolution of EO data), as well as processing and analytical tools (e.g. Data Cubes) and access (free access to archived EO data through bilateral and multilateral arrangements) improve the potential to deliver EO products and services that are useful to IORA Member States.



Australia, and France are active in the Indian Ocean on EO data, and each have the capacity to provide access to, and processing and interpretation of, EO data. They and the European Union (EU) have previously cooperated in 2018 to host an EO workshop for Pacific Island Nations. In addition, India also has considerable EO capabilities, and improving access to these aligns well with the Indo-Pacific Oceans Initiative, announced in November 2019 by the Indian Prime Minister. The proposed activity is relevant to IORA priority areas of Disaster Risk Management, Blue Economy, Fisheries and Academic, Science and Technology Cooperation, which India leads.

The IORA Indian Ocean Blue Carbon Hub aims to build knowledge and capacity relevant to protecting and restoring blue carbon ecosystems throughout the Indian Ocean, in a way that enhances livelihoods, reduces risks from coastal hazards, and helps mitigate climate change. It supports Australia's involvement in IORA and links it to other initiatives that Australia is fostering, such as the International Partnership for Blue Carbon and the Commonwealth [Climate Finance Access Hub](#). The Hub also complements Australia's leadership in Blue Economy dialogue, especially in IORA. It anticipates that the greatest improvements can be made through improved leadership and development of evidence-based policy.

## Proposal

We propose a multi-day virtual workshop to convene representatives from IORA Member States and Dialogue Partners to consider the EO data needs in the context of a blue economy. We encourage nominations of female participants to ensure gender balance. The workshop would focus on how assistance including access, training and development of useful products could be cooperatively delivered. France would be a central partner in delivery of the workshop.

## Objectives

The Objectives of the IORA Blue Carbon Hub workshop on 'Earth observation for an Indian Ocean Blue Economy' are:

- Identify the EO data needs of IORA MS
- Identify the actors who have significant EO capability to offer IORA MS
- Identify areas of common interest and expertise between Australia, France and India (as well as Dialogue Partners with significant EO capacity, such as Japan, Korea and the European Union)
- Identify key enabling actions based on common interests of IORA MS and the capacities available
- Develop a roadmap and/or proposals for joint projects to implement the actions (including actions identified in the Blue Economy Working Group Plan)
- Communicate this action plan to high-level fora.



The workshop will deliver an implementation pathway that would include future project collaborations, funding sources for potential partners, country programs and resources that can be leveraged.

## **Outputs and outcomes**

The workshop would focus discussion on the opportunities for and challenges to using EO in the Indian Ocean, and would subsequently develop a roadmap for enabling EO in the Indian Ocean, both as an information tool to support the development of blue economies of IORA MS, and for effective surveillance and management of areas beyond national jurisdictions (ABNJ).

The workshop would also take note of the offers to be made by the Dialogue Partners regarding their support on the potential research, training, workshops, seminars, capacity building, technology transfer, funding or by any other means.

The primary outputs would be:

- a set of presentation materials,
- a brief workshop report, and
- a roadmap and/or proposals for actions that can be implemented.

The workshop report would be made freely available through the [Hub website](#).

The outcomes sought are:

- improved awareness of the options available for EO in the Indian Ocean, including the data available, where to get it, and how to use it
- improved capacity in EO in IORA Member States
- enhanced understanding by policymakers and practitioners of how and when to use EO to help make decisions and develop indicators for reporting
- greater engagement from EO providers in IORA Member States and Dialogue Partners.

These outcomes would be communicated to a number of upcoming high-level meetings, including: the Group of Earth Observation (GEO), the Committee of Earth Observations (CEOS) and the High Level Panel on a Sustainable Ocean Economy.

## **Milestones**

The workshop would fix the deadlines to complete the tasks as decided by the Member States in collaboration with the Dialogue Partners. An agreed method would be developed to follow up the action plans and trigger the tasks.





## Workshop format

We envisage an opening Track 1.5 session for technical and policy representatives from IORA MS and DP, followed by Track 2 sessions for representatives from EO providers (including national space agencies and industry) and other interested end users from IORA MS and multilateral development organisations, regional EO coordination groups (e.g. CEOS, GEO) and other relevant regional organisations (IOTC, IOC, Commonwealth) and industry sectors.

The meeting will:

- Provide information through invited expert speakers
- Provide training modules in the key underlying concepts and approaches
- Convene discussions about potential partners and approaches for local-scale collaboration to undertake following the meeting.

The meeting is proposed to be held online over three (3) consecutive days for five (5) hours per day (including breaks) with the following draft headline agenda:

	<b>Day one, 23 November 2021</b>
	<p><b>Plenary opening</b></p> <ul style="list-style-type: none"> <li>• Opening Remarks</li> </ul> <p><i>Speakers: IORA, Australian, French and Indian senior representatives;</i></p> <ul style="list-style-type: none"> <li>• The opportunities and challenges for EO in the IOR.</li> </ul> <p><i>Speakers: Invited EO experts</i></p>
	<p><b>User Needs for Earth Observation</b></p> <ul style="list-style-type: none"> <li>• Present the Results of questionnaire.</li> </ul> <p><i>Speaker: TBC</i></p> <ul style="list-style-type: none"> <li>• Thematic presentations based on questionnaires and member state nominations</li> </ul>
	<p><b>Overview of EO Capabilities in the Indian Oceann Region</b></p> <p><i>Speakers: major earth observation providers</i></p>
<b>Day 2</b>	<b>Thematic Discussions</b>
	<p><b>Breakout sessions</b> to review needs, opportunities and challenge.</p> <p>The breakout sessions will cover the following proposed topics, which will be reviewed again following the questionnaire results.</p> <ul style="list-style-type: none"> <li>• Marine spatial planning</li> <li>• Coastal Habitat mapping and monitoring (incl. mangroves, segrass, corals)</li> <li>• Coastal vulnerability and protection and response measures</li> </ul>



	<ul style="list-style-type: none"><li>• Fisheries (including stock management, Illegal Unregulated and Unreported fishing, and Potential Fishing Zones services)</li><li>• Marine pollution and litter</li></ul> <p><i>Speakers/Presenters: TBC</i></p>
	<p><b>Plenary discussion: Summaries from the thematic discussions</b></p> <p>This session aims to summarise the discussions from the breakout session to stimulate a general discussion on future actions and defining the road ahead.</p>
<b>Day 3</b>	<b>Bespoke Earth Observation Training sessions</b>
	<p>Breakout sessions will focus on how to use specific Earth Observation tools including</p> <ul style="list-style-type: none"><li>• Google Earth Engine</li><li>• Accessing Copernicus data</li><li>• Datacubes</li><li>• Mapping Mangroves</li><li>• Radar for IUU applications.</li></ul> <p><i>Speakers/presenters: TBC</i></p>

#### Host

We propose this meeting to be co-hosted by IORA Blue Carbon Hub (Australia) and the French Embassy in collaboration with the IORA Secretariat.

#### Contact

For further information please contact at the Dr Shamimtaz B. Sadally Roomaldawo ([shamimtaz.sadally@iora.int](mailto:shamimtaz.sadally@iora.int)) at the IORA Secretariat and Ms Lauren Hardiman ([lauren.hardiman@csiro.au](mailto:lauren.hardiman@csiro.au)) at the IORA Blue Carbon Hub.