# International Blue Carbon Scientific Working Group 15<sup>th</sup> Annual Meeting

3-6 October 2023 Singapore

### **Agenda**



#### **Coordinating organizations:**







#### Workshop partner organizations:



#### **Funding organizations:**









# International Blue Carbon Scientific Working Group 15<sup>th</sup> Annual Meeting Singapore

#### Rationale for the meeting

The Blue Carbon Initiative is a global program working to address climate change through the restoration and conservation of coastal and marine ecosystems, specifically mangroves, salt marshes, and seagrasses. The Initiative is coordinated by Conservation International, the International Union for Conservation of Nature, and the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific, and Cultural Organization.

Formed in February 2011, the International Blue Carbon Scientific Working Group provides the scientific foundation for the Blue Carbon Initiative by synthesizing current and emerging science on blue carbon and by providing a robust scientific basis for coastal carbon conservation, management and assessment. The working group strives to build scientific capacity and create networks within blue carbon priority countries through collaboration with experts and government officials. The Working Group consists of globally recognized specialists in coastal carbon science, carbon assessment, remote sensing and international climate change policy. More information about the Blue Carbon Initiative can be found at: <a href="https://www.bluecarboninitiative.org">www.bluecarboninitiative.org</a>.

The 2023 International Blue Carbon Scientific Working Group meeting will take place in Singapore from October 3 to October 6. The meeting will focus on current scientific issues related to blue carbon's role in climate action and what new information is needed to integrate blue carbon science in policymaking processes worldwide. Importantly, as part of our meeting we will also introduce the newly formed <a href="International Blue Carbon Institute">International Blue Carbon Institute</a>. This will provide an opportunity for the Working Group to support blue carbon science, policy and project development in Singapore and, more broadly, across the Southeast Asia region.

## **Daily Agenda**

| Tuesday, October 3 - Opening Day |  |  |
|----------------------------------|--|--|
| Audience:                        | Singapore based partners, donors, academics/researchers; regional scientists; IBCSWG members   |  |
| Objectives:                      | Build awareness in Singapore of the Blue Carbon Initiative's expertise and leadership in blue carbon.  |  |
|                                  | Build awareness of and support for the International Blue Carbon Institute.  Build awareness of options and opportunities for blue carbon in Singapore and Southeast Asia based on global experiences. |  |

| Time   | Торіс   | Speaker(s)  |
|--|---|---|
|  | Session 1 - Opening Ceremony  |   |
| Objective: Welcome the audience and provide an overview of Blue Carbon science, policy and implementation. |   |   |
| Master of Ce   | remony: Emily Pidgeon   |   |
| 9:00 - 10:40   | Welcome   | Prof. Dr. Leo Tan   |
|  | Welcome words by Blue Carbon Initiative partner organizations   | Dr. Emily Pidgeon, Dr.<br>Kirsten Isensee, Dr. Maeve<br>Nightingale |
|  | Regional vision on blue carbon science  | Dr. Richard Jeo   |
|  | The evolution of blue carbon and current trends   | Dr. Emily Pidgeon, Dr.<br>Steve Crooks                              |
|  | International Blue Carbon Institute overview  | Dr. Siti Maryam Yaakub  |
| 10:40 - 11:00  | Tea Break   |   |
|  | Session 2 - Global Overview of Blue Carbon  |   |
| Objective: Understand blue carbon science, project development and international                           |   |   |
| implementat  |   |   |
| Facilitator: D   | r. Steve Crooks   |   |
| 11:00 - 11:20  | Science of Blue Carbon  | Prof. Dr. Catherine Lovelock  |
| 11:20 - 11:50  | Panel presentations:  |   |
|  | Lessons learned from Vida Manglar   | Ms. Amy Schmid  |
|  | Community based blue carbon credit projects in Madagascar   | Ms. Leah Glass  |
|  | International Blue Carbon potential and implementation  | Prof. Dr. Dan Friess  |
| 11:50 - 12:30  | Panel and public Q&A: How is Blue Carbon being applied globally? What are the next big opportunities? | Dr. Steve Crooks and session speakers                               |
| 12:30 - 13:30  | Lunch   |   |
|  | Session 3 - Blue Carbon in Southeast Asia   |   |
| Objective: Highlight the latest blue carbon science and research priorities in Southeast Asia.             |   |   |

| Working Group Days |  |  |
|--------------------|--|--|
| Audience:          | Singapore, regional and global (IBCSWG) scientists, donors and partners  |  |
| Objectives:        | Identify the applications of existing and future knowledge for conservation, restoration and management of Blue Carbon ecosystems. |  |
|                    | Identify contributions from the IBCSWG to close research gaps and strengthen Blue Carbon project implementation globally.          |  |

| Wednesday, October 4 - IBCSWG Meeting      |  |  |
|--|--|--|
| Time                                       | Topic  | Speaker(s)   |
|  | Session 1 - Introduction and Initial Discussion  | n  |
| Objective: Fra                             | ame the meeting's discussions and expectations for the W   | orking Group and guests.                             |
| Facilitator: D                             | rs. Emily Pidgeon, Steve Crooks, Kirsten Isensee   |  |
| 9:00 - 9:25                                | Insights on the work and progress of the BCI Science Working Group and expectations for this meeting       | Drs. Emily Pidgeon, Steve<br>Crooks, Kirsten Isensee |
|  | Session 2 - In Memoriam Professor Sir Miguel Fo  | ortes  |
| Objective: Ce                              | lebrate the ecosystems and places that were special to ou  | r friend Mike Fortes.                                |
| Facilitator: D                             | r. Emily Pidgeon   |  |
| 9:25 - 10:40                               | Professor Sir Miguel D. Fortes - a biography   | Dr. Emily Pidgeon                                    |
|  | Ode to Seagrass  | Dr. Siti Maryam Yaakub                               |
|  | Professor Fortes' contributions to the development and progress of blue carbon research in the Philippines | Dr. Severino Salmo                                   |
|  | Capacity building of local communities for blue carbon projects  | Dr. Jay Mar Quevedo                                  |
|  | The nexus among blue carbon-society-policy/governance in Malaysia, Southeast Asia                          | Dr. Amir Aldrie                                      |
|  | Public reflections   | Dr. Emily Pidgeon                                    |
| 10:40 - 11:00                              | Tea Break  |  |
|  | Session 3 - Seagrass Science   |  |
| <b>Objective: Sy</b>                       | nthesize the most recent advances in seagrass science glol   | bally and in Southeast Asia.                         |
| Facilitator: Pi                            | of. Dr. Martin Dahl  |  |
| 11:00 - 12:10                              | Introduction to seagrass science   | Prof. Dr. Martin Dahl                                |
|  | Seagrass Research Indonesia  | Dr. Rohani Ambo Rappe                                |
|  | Cambodia seagrass research   | Ms. Chantha Chroeng                                  |
|  | Socio-ecology of seagrass meadows in coastal communities of the West Johor Straits                         | Dr. Serina Rahman                                    |
|  | Carbon stocks in Turkey Posidonia meadows  | Prof. Dr. Hilary Kennedy                             |
| 12:10 - 13:00                              | Global seagrass database - update and discussion   | Prof. Dr. Johannes Krause                            |
| 13:00 - 14:00                              | Lunch  |  |
| Session 4 - Blue Carbon Science Leadership |  |  |

| Objective: Identify the research priorities and opportunities for collaboration among Blue Carbon regional and global research initiatives. |   |                                     |  |  |
|---|---|-------------------------------------|--|--|
| Facilitator: D  | Facilitator: Dr. Kirsten Isensee  |                                     |  |  |
| 14:00 - 14:40   | Regional blue carbon research centers   | Dr. Kirsten Isensee                 |  |  |
|   | Panel discussion 1 - Regional research centers  |                                     |  |  |
|   | Hainan International Blue Carbon Research Center  | Prof. Dr. George Lin                |  |  |
|   | Indonesia World Mangrove Center   | Dr. Virni Arifanti                  |  |  |
|   | IORA Blue Carbon Hub  | Dr. Mat Vanderklift                 |  |  |
| 14:40 - 15:10   | Discussion, Q&A from public   |                                     |  |  |
| 15:10 - 15:30   | Tea Break   |                                     |  |  |
| 15:30 - 16:10   | The need for regional and global collaborative efforts  | Dr. Kirsten Isensee                 |  |  |
|   | Panel discussion 2 - International/global research centers  |                                     |  |  |
|   | International Blue Carbon Institute   | Dr. Siti Maryam Yaakub              |  |  |
|   | UN Ocean Decade GO-BC   | Prof. Dr. Miguel Cifuentes-<br>Jara |  |  |
|   | International Partnership for Blue Carbon   | Ms. Elisabetta Bonotto              |  |  |
|   | Mangrove Breakthrough   | Steve Canty                         |  |  |
| 16:10 - 16:50   | Discussion: How can the IBCSWG support research capacity globally through this emerging infrastructure? |                                     |  |  |
| 16:50 - 17:00   | Daily summary and closing remarks   | TBD                                 |  |  |

| Thursday, October 5 - IBCSWG Meeting   |   |                        |
|--|---|------------------------|
| Time   | Topic   | Speaker(s)             |
| S  | ession 5 - The scientific elements for blue carbon country  | implementation         |
| Objective: Identify current science gaps needed for blue carbon (i) standards and methodologies and (ii) national implementation |   |                        |
| Facilitator: Dr. Daniel Friess   |   |                        |
| 9:00 - 9:30  | Science needs for building and improving blue carbon standards and methodologies - Australia case study | Dr. Catherine Lovelock |
|  | Verra new risk tool for Sea Level Rise  | Ms. Leah Glass         |
| 9:30 - 10:05   | Brainstorming: Science needs to develop methods and standards for blue carbon in other ocean ecosystems | Ms. Amy Schmid         |
| 10:05 - 10:25  | Tea Break   |                        |
| 10:25 - 11:25  | Country-level governance for blue carbon  | Dr. Dixon Gevaña       |
|  | Indonesia's Blue Carbon Strategy  | Dr. Frida Sidik        |
|  | NDC development pathways in Belize, Costa Rica, Seychelles  | Mr. Tom Hickey         |
|  | Transparency accelerator and National GHG Inventories   | Dr. Steve Crooks       |

| 11:25 - 12:00  | Discussion: Clarifying science needs and/or challenges for national blue carbon development and implementation | Prof. Dr. Daniel Friess     |
|--|--|-----------------------------|
| 12:00 - 13:00  | Lunch  |                             |
|  | Session 6 - Coastal Blue Carbon Field Manual U   | pdate                       |
| Objective: Outline the steps and content necessary to update the BCI methods manual for assessing carbon stocks and emissions in blue carbon ecosystems.   |  |                             |
| Facilitator: D   | r. Mark Beeston  |                             |
| 13:00 - 14:00  | Blue Carbon Field Manual update  | Dr. Mark Beeston            |
|  | Session 7 - Transformative Blue Carbon Platfo  | orm                         |
| Objective: Codesign a collaborative implementation platform for blue carbon to develop science-based, high-quality blue carbon projects to deliver benefits for people and sustainability of blue carbon ecosystems. |  |                             |
| Facilitator: Pi  | rof. Dr. Daniel Murdiyarso   |                             |
| 14:00 - 15:00  | Framing a "Transformative Blue Carbon Platform"  | Prof. Dr. Daniel Murdiyarso |
|  |  | Dr. Siti Maryam Yaakub      |
|  |  | Dr. Steve Crooks            |
|  |  | Dr. Novi Sustyo Adi         |
| 15:00 - 15:30  | Tea Break  |                             |
|  | Session 8 - Blue Carbon Science Updates  |                             |
| <b>Objective: Sh</b>   | are examples of new research conducted globally by Wo  | rking Group members.        |
| Facilitator: D   | r. Frida Sidik   |                             |
| 15:30 - 16:40  | Introductory words and context   | Dr. Frida Sidik             |
|  | Blue carbon assessments of seagrass and mangrove ecosystems in South and Southeast Asia                        | Dr. Milica Stankovic        |
|  | Understanding Salt Marsh Change and Carbon Impacts with Earth Observation                                      | Anthony Campbell            |
|  | Contributions of mangrove conservation and restoration to climate mitigation in Indonesia                      | Dr. Virni Arifanti          |
|  | Climate-smart restoration activities   | Dr. Richard Bellerby        |
|  | Ghost forests  | Dr. Lindsey Smart           |
|  | Macroalgae - the next Blue Carbon ecosystem?   | Dr. Albert Pesorradona      |
|  | Coastal Carbon Network and Atlas   | Dr. Steve Canty             |
| 16:40 - 17:10  | Group discussion to synthesize research priorities   | Dr. Frida Sidik             |
| 17:10  | Field day information and closing remarks  | Dr. Siti Maryam Yaakub      |

| Friday, October 6 - Field Trip & IBCSWG Closed Session                       |   |  |  |
|--|---|--|--|
| Time   | Topic   | Speaker(s)   |  |
|  | Session 9 - Field trip to local wetland   |  |  |
| Objective: Fa  | Objective: Familiarize the IBCSWG with examples of Singapore's wetland ecosystems.  |  |  |
| Facilitator: D   | r. Siti Maryam Yaakub and Prof. Dr. Dan Friess  |  |  |
| 8:00 - 12:00   | Optional field trip   | Dr. Siti Maryam Yaakub,<br>Prof. Dr. Daniel Friess |  |
| 12:00 - 13:30  | Return to hotel and lunch   |  |  |
| Session 10 - IBCSWG closed session - Working Group only                      |   |  |  |
| Objective: Identify and prioritize next steps in the IBCSWG work and outputs |   |  |  |
| Facilitator: Drs. Emily Pidgeon, Steve Crooks, Kirsten Isensee               |   |  |  |
| 13:30 - 15:00  | Synthesis of previous days  | BCI partners                                       |  |
|  | Group discussion: Priority research topics, potential products, task groups (CC + inorganic C in BC ecosystems), WG governance & membership | Working Group members                              |  |
| 15:00 - 15:20  | Tea Break   |  |  |
| 15:20 - 16:30  | Discussion (continued)  | Working Group members                              |  |
|  | Group reflections and closing remarks   | Co-chairs and main partners                        |  |