



**14<sup>th</sup> Intergovernmental Session of  
the IOC Sub-Commission for the Western Pacific (WESTPAC-XIV)**  
*Jakarta, Indonesia, 4-7 April 2023*

**NEW PROGRAMME/PROJECT/WORKING GROUP PROPOSAL**

**I. PROPOSED PROGRAMME/PROJECT/ WORKING GROUP, AND ITS TIMEFRAME**

(Please identify if the proposal will be a programme with a timeframe of no longer than eight years, or a project of no longer than four years. If you intend to propose a working group, please refer to the Guidelines for the establishment of WESTPAC Working Groups. The extension of programs/projects/working groups could be made, subject to their deliverables, performance and evaluation results)

**WORKING GROUP ON BLUE CARBON ACTIONS (WGBCA) IN WESTERN PACIFIC REGION**

**II. PROGRAMME/PROJECT PROPOSER (OR WORKING GROUP CHAIR), AND RECOMMENDED MEMBERS FOR THE PROGRAMME/PROJECT STEERING GROUP (WORKING GROUP), IF AVAILABLE**

(The Programme/Project Steering Group, and Working Group shall consist of ACTIVE members. Once the new programme/project/working group is established, National Focal Points in Member States can recommend their qualified experts to the Group. Once the Sub-Commission establishes its new programmes/projects/working groups, WESTPAC designated Principal Investigators (PIs)/WG Chairs will play an important role in the WESTPAC international cooperative framework/process, as they are entrusted to coordinate the development of respective WESTPAC programmes/projects/WGs, engage relevant stakeholders, and deliver knowledge, tools and results needed to address priority needs of Member States in the region.)

The WG membership is open to anyone who is willing to promote, and has extensive experience in blue carbon research and development. Members could be further finalized, as the WG activities unfold.

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Other international initiatives related to blue carbon.

All potential members will be further confirmed through the first workshop of the WG.

### **III. JUSTIFICATIONS FOR THIS PROGRAMME/PROJECT/WORKING GROUP**

(Note: This part is extremely important. Please provide detailed justifications as much as possible.)

Blue carbon refers to the biologically-driven carbon fluxes and storage in marine systems that are amenable to management, including tidal marshes, mangroves, seagrasses, and macroalgae. These coastal blue carbon ecosystems play a critical role in climate change mitigation and adaptation as they have the ability to sequester large amounts of carbon dioxide and particle carbon and store it in the sediments and vegetation for potentially centuries or even millennia. Compared to terrestrial forests, these ecosystems can sequester up to 10 times more carbon per unit area. Furthermore, they provide many non-climatic services such as biodiversity conservation, water purification, and disaster reduction, making blue carbon a regretless choice for coastal countries, as recommended by the IPCC.

The Western Pacific region is home to the largest extent of blue carbon ecosystems in the world, covering over 40% of the total and contributing over 95% of macroalgae products globally. These ecosystems play a significant role in the global carbon budget, making their conservation vital for climate change mitigation. Moreover, they support a rich diversity of marine and terrestrial life, including many endangered and threatened species. Blue carbon ecosystems also play a critical role in climate adaptation by providing a buffer against the impacts of climate change, such as sea-level rise and extreme weather events. For instance, the root systems of mangroves and seagrasses stabilize shorelines and protect coastal areas from erosion and storm surges.

To account for their impact on the carbon cycle, coastal blue carbon ecosystems have been incorporated into the National Greenhouse Gas Inventory mechanism, and many countries have written them into their climate pledges. Therefore, it is crucial to implement management measures that protect and enhance the carbon sequestration potential of these ecosystems, while also ensuring their sustainable use and management to maximize their co-benefits. Such actions

will contribute to achieving the goals of the Paris Agreement and the Sustainable Development Goals, ultimately leading to a more resilient and sustainable future for all.

Proposal of the concept of blue carbon in 2009 bring ocean and coasts into climate governance. However, it is observed that the scientific community working on blue carbon tends to prioritize research on the carbon cycle and coastal ecology, with limited attention to integrating blue carbon into national climate policy. The discussion of other vital ecosystem services provided by blue carbon is also found to be inadequate.

It is imperative to recognize the importance of addressing these gaps and ensuring a holistic approach to blue carbon research and practice. Collaboration between scientists, policymakers, and stakeholders in West Pacific Region is crucial to develop strategies that integrate the science of blue carbon with climate governance frameworks and enhance the understanding of its broader ecosystem services.

#### IV. S.M.A.R.T OBJECTIVES AND EXPECTED OUTPUTS/OUTCOMES

(Note: The objectives of WESTPAC programmes/projects/working groups shall be specific, measurable, attainable/achievable, relevant, and time-bound)

The Working Group aims to foster a blue carbon research and practice in the Western Pacific region, and further promote the understanding of blue carbon among policy makers, specialists, and the wider public. The ultimate goal is to develop blue carbon-based solutions for climate mitigation, adaptation, biodiversity conservation, and sustainable development.

To achieve the above, the Working Group has three specific objectives. Firstly, to establish and foster a blue carbon research and practice network, and facilitate the exchange of knowledge and expertise on blue carbon among WESTPAC members. Secondly, to identify areas of common interest in blue carbon cooperation and explore the possibility of developing a blue carbon project or programme under the IOC/WESTPAC framework.

The concept of blue carbon has a strong link to the United Nations Sustainable Development Goals, particularly SDG 13 (Climate Action) and SDG 14 (Life Below Water), as well as the UN Decade of Ocean Science for Sustainable Development.

The outputs of the Working Group will include (1) Blue carbon knowledge and experience shared, and common interests identified through **a series of webinars** (2) **a status report** will be produced to track progress and identify problems in regional blue carbon policy, research, and practice. (3) **a project/programme proposal** will be developed to prioritize and map out the roadmap of regional blue carbon cooperation.

The Working Group will operate for two years from 2023 to 2025, with annual activities planned to achieve the objectives. If the Working Group could not achieve its objectives within two years, it may be extended for another two years.

## V. TERMS OF REFERENCE OF THE PROGRAMME/PROJECT STEERING GROUP (OR WORKING GROUP):

(For the purpose of guidance and management, WESTPAC encourages each programme/project to set up its Steering Group with ACTIVE members. A draft TORs for this Group shall be developed, and submitted for considerations)

Working Group:

1. Facilitate collaboration among scientists, policymakers, organizations, enterprises, and other stakeholders in the West Pacific region to promote potential bilateral or multilateral cooperation.
2. Assess the current state of blue carbon research, implementation, practices, and collaboration in the region, identifying any gaps or emerging trends.
3. Propose a project or programme to strengthen the region's capacity by mitigating and adapting to climate change with blue carbon, enhancing its ability to undertake effective blue carbon-based mitigation and adaptation actions.

## VI. ENGAGEMENT OF RELEVANT STAKEHOLDERS OUTSIDE ACADEMIA

(Please endeavor to outline and engage potential stakeholders of this programme/project, if possible. The list of stakeholders could be continuously expanded as the program/project enhances its impacts)

### 1. Amazon web services:

Amazon Web Services (AWS) is a cloud computing platform that provides a wide range of services and solutions to businesses and organizations around the world. In Nov, 2022, Amazon and Conservation International announced the establishment of the International Blue Carbon Institute for supporting the restoration and protection of coastal blue carbon ecosystems in Southeast Asia and beyond. AWS provides a variety of tools and services that can be used to store, process, and analyze large amounts of data related to carbon emissions, climate change, and other environmental factors.

### 2. World Coastal Forum

The World Coastal Forum (WCF) is an international platform for the exchange of ideas and experiences on sustainable development and management of coastal areas, including the impacts of climate change on coastal zones, the conservation of coastal ecosystems and biodiversity, and the promotion of coastal livelihoods and cultural heritage. It is in collaboration with various partners and stakeholders, including governments, non-governmental organizations, research institutions, and private sector entities. WCF is a potential financial supporter of the working group.

### 3. Policy/management agencies, academic agencies, private/business sectors, ECOPs, NGOs, etc.

## VII. MAIN ACTIVITIES TO BE CARRIED OUT DURING ITS TIMEFRAME

**A convening session** for establishing a working group and defining its objectives is essential for achieving coherence and efficiency in the working group's endeavors. A mission statement and a list of goals provide a clear framework for the group to operate within and ensure that all members are working towards the same objectives.

**A series of webinars** designed to raise awareness about the significance of blue carbon and its potential benefits for the environment can provide a platform for knowledge-sharing and capacity-building. Such webinars can focus on topics such as the scientific underpinnings of blue carbon, the process of developing and implementing blue carbon projects, and case studies of successful

projects. Inviting speakers from different sectors and sharing videos online can facilitate a broader dissemination of knowledge and encourage participation from a diverse audience.

**Annual meetings** serve as a forum for bringing together stakeholders, experts, and members to review progress, discuss challenges and opportunities, and set goals for the future. Such meetings can include workshops, presentations, and networking sessions, fostering collaboration and collective action. These gatherings enable participants to exchange ideas and identify opportunities for collaboration, which can result in a more effective and coordinated effort.

**A status report** will be produced to track progress and identify problems in regional blue carbon policy, research, and practice.

**A recommendation report** for prioritizing and map out the roadmap of regional blue carbon cooperation.

These activities are essential for advancing the goals of the Paris Agreement and achieving a more sustainable future. The two-year time frame provides sufficient opportunity for meaningful progress to be made, and the flexibility to adapt the activities to the specific needs and goals of the working group ensures that they are tailored to the specific context in which they are implemented.

**VIII. PROPOSED WORK PLAN AND BUDGET FOR SEP 2023 - SEP 2026:**

(Provide, in tabular form, the action items that should be included in the work plan and budget)

Programme/ Project/Working Group	Objectives	Activities	Expected outputs/outcomes	Date and Place	Funding required	
					IOC	Other sources(i.e., from national/international sources)
WORKING GROUP ON BLUE CARBON ACTIONS (WGBCA) IN WESTERN PACIFIC REGION	<p>The Working Group aims to promote the understanding of blue carbon among policy makers, specialists, and the wider public, while fostering a blue carbon research and practice network in the Western Pacific region. The ultimate goal is to develop blue carbon-based solutions for climate mitigation, adaptation, biodiversity conservation, and sustainable development.</p> <p>To achieve these objectives, the Working Group has identified three specific goals. Firstly, to facilitate the exchange of knowledge and expertise on blue carbon among WESTPAC members. Secondly, to identify areas of common interest in regional blue carbon cooperation for research, policy, and practice. Thirdly, to reach consensus on the specific areas and content of regional blue carbon cooperation.</p>	1.1 convening session	Report on a) member of WG from each country, b) a mission statement of the WG.	Sep. 2023, China		
		1.2 Webinars		Sep-Nov. 2023, China	5000	<ul style="list-style-type: none"> <li>• National: 8000 from HNU China(proposed)</li> <li>• International: sought for support from AWS, International Blue Carbon Institutes etc.</li> </ul>
		1.3 Desktop study on a status report	a status report	Jan-June. 2024; Within each member states		
		1.4 Annual meeting and workshop		Sep.2024, China	7000	<ul style="list-style-type: none"> <li>• National: 8000 from HNU China(proposed)</li> <li>• International: sought for support from AWS, International Blue Carbon Institutes etc.</li> </ul>
		2.4 Desktop study on a recommendation report	a recommendation report	Oct.2024- Jun.2025 Within each member states		
		2.3 Annual meeting		Dec. 2025, China	7000	<ul style="list-style-type: none"> <li>• National: 8000 from HNU China(proposed)</li> <li>• International: sought for support from AWS, International Blue Carbon Institutes etc.</li> </ul>