

## FOURTH MEETING OF SIGNATORY STATES TO THE MEMORANDUM OF UNDERSTANDING ON THE CONSERVATION AND MANAGEMENT OF DUGONGS (*DUGONG DUGON*) AND THEIR HABITATS THROUGHOUT THEIR RANGE

*(Riyadh, 6-7 May 2024)*

UNEP/CMS/DUGONG/MOS4/Doc.12.1.2

### CONSERVATION OF BIODIVERSITY, SEAGRASS ECOSYSTEMS, AND THEIR SERVICES – SAFEGUARDING FOOD SECURITY AND RESILIENCE IN VULNERABLE COASTAL COMMUNITIES IN A CHANGING CLIMATE

*(Prepared by Secretariat of the Dugong MOU)*

**Summary:** This document provides an update on the status of implementation of the 'Conservation of Biodiversity, Seagrass Ecosystems, and their Services – Safeguarding Food Security and Resilience in Vulnerable Coastal Communities in a Changing Climate' project, funded by IKI and managed by the Secretariat of the Dugong MOU. The Meeting is requested to take note of the progress achieved by the project, encourage relevant stakeholders to support and engage in similar projects, and encourage collaboration among relevant stakeholders to expand seagrass ecosystem-based initiatives across dugong Range States.

## Background

1. Paragraphs 1, 2 and 4 of the Dugong MOU Text call for Signatory States to cooperate to restore and maintain the favourable conservation status of the seagrass habitats on which dugongs depend, including by putting effort into reviewing, formulating, revising and harmonising national legislation or regulations relevant to the conservation and management of these habitats, as necessary, and by implementing seagrass protection, conservation and management activities foreseen in the Conservation and Management Plan for the Dugong MOU.
2. In October 2018, the Secretariat of the Dugong MOU submitted a proposal to the International Climate Initiative (IKI) under its thematic call on biodiversity for a project aiming to: evaluate the ecosystem services provided by seagrass; develop sustainable financing models for community-led conservation efforts; empower local non-governmental organisations and coastal communities to assess seagrass health; and influence policy development to protect seagrass biodiversity and its services.
3. The proposal was accepted for funding by IKI in April 2019. The project was named 'Conservation of Biodiversity, Seagrass Ecosystems, and their Services – Safeguarding Food Security and Resilience in Vulnerable Coastal Communities in a Changing Climate'.
4. Managed by the Secretariat of the Dugong MOU, the project, commonly referred to as 'IKI Seagrass Ecosystem Services Project', was to be implemented from 2019 to 2022 in five countries of the Indo-Pacific region—Indonesia, Malaysia, the Philippines, Thailand, and Timor-Leste—with the following as main intended outcomes:
  - (a) Implementation of new or enhanced conservation policies (at local, provincial, or national levels) integrating the valuation of Seagrass Ecosystem Services (SES) across all project countries by the date of project completion.
  - (b) Establishment of community business partnerships to implement business models that integrate SES operationalisation in each of the project countries by the date of project completion.
5. Project implementation in the five project countries was delayed due to the COVID-19 pandemic. To overcome these delays, a no-cost project extension until December 2023 was agreed to in June 2022. Additionally, in December 2023, a second project amendment was approved, adding India as a sixth project country and extending implementation until April 2025.
6. The project's implementation is overseen by a full-time Project Manager, seated at the CMS Office - Abu Dhabi and funded through the project. The current Project Manager was recruited in March 2022 and took over from her predecessor, who resigned in September 2021. The predecessor was recruited in January 2020 to support the initiation of the Project. In addition to the Project Manager, strategic direction is provided by the Project Director (the Dugong MOU Project Management Officer) and the Executive Coordinator of the CMS Office - Abu Dhabi.
7. A summarised report on implementation of the project in Indonesia, Malaysia, the Philippines, Thailand, and Timor-Leste is provided in paragraphs 9-15 below. Information on implementation in India is not included as it is a recent addition to the project.
8. The project operates as a consortium with two implementing partners: Blue Ventures and the Marine Research Foundation (MRF). Working alongside them are several national partners actively engaged in the project activities tailored to their respective countries. These include Blue

Ventures in Timor Leste, Community Centred Conservation (C3) Philippines in the Philippines, MareCet in Malaysia, OMCAR Foundation in India, Save the Andaman (SAN) in Thailand, YAPEKA in Indonesia, and the Zoological Society of London (ZSL) in the Philippines. Additionally, technical expertise is contributed by Edith Cowan University (ECU), Murdoch University (MU), Project Seagrass, Seagrass-Watch, and the Suganthi Devadason Marine Research Institute (SDMRI). PT Niras in Indonesia is also supporting a spirulina farm as part of the Project's activities.

## **Implementation of Activities**

### *Progress on policy development*

9. Significant progress has been achieved at national-level in project countries with regard to mainstreaming seagrass-related policies. For instance, in Indonesia, the Seagrass Carbon Mitigation Action Profile, launched by the Minister of Marine Affairs and Fisheries in October 2023, highlights the country's commitment to leverage Indonesia's significant seagrass resources to increase carbon storage and contribute to the country's greenhouse gas reduction goals under the Paris Agreement. In Malaysia, the Department of Fisheries is actively working to designate protected areas around the Mersing Archipelago in Johor, aimed at preserving the dugong population and its seagrass habitat. In Timor-Leste, efforts are underway to revive traditional laws like Tara Bandu, facilitating the establishment of Locally Managed Marine Areas (LMMAs) and empowering communities such as Hera to manage marine resources effectively. Additionally, the CMS Office - Abu Dhabi plays an active role in encouraging non-Signatory Range States involved in the project to consider signing the Dugong MOU.
10. At a regional level, the integration of seagrass into the Coordinating Body on the Seas of East Asia (COBSEA) Strategic Directions 2022-2025 is significant. This strategic document guides the work of COBSEA to protect and sustainably develop the marine and coastal environment of the East Asian Seas region.
11. At a global level, the 2030 Seagrass Breakthrough initiative led by the Secretariat (refer to document UNEP/CMS/DUGONG/MOS4/Doc.12.1 for more detail on this initiative) and the CMS Resolution on Conservation and Sustainable Management of Seagrass Ecosystems, along with Decisions on Seagrass Ecosystems adopted at the Fourteenth Meeting of the Conference of the Parties to CMS (COP14, Samarkand, February 2024; refer to document UNEP/CMS/DUGONG/MOS4/Doc.9 for more detail) demonstrate a collective commitment to seagrass ecosystem conservation policies.

### *Progress on data collection capacity-building*

12. The project employs community-participatory methodologies for data collection, enabling site-specific assessments of seagrass health and threats. These methodologies have included various tools such as the CMS Dugong Catch & Bycatch Questionnaire, the Rapid Seagrass Assessment and Mapping Methodology, Baited Remote Underwater Video Systems (BRUVS), the Seagrass Spotter Application, the Seagrass Blue Carbon Toolkit, and the WISDAMapp for dugong monitoring. Resorting to these community-participatory methodologies for data collection has ensured the standardisation of methodologies across project sites and fostered community involvement in data collection.
13. National partners and coastal communities have been equipped with technical tools and received capacity-building training, guidance and support from scientific experts. This empowerment has enabled them to effectively assess seagrass health, threats, and ecosystem services, allowing meaningful contributions to data collection processes. To date, the project has successfully

completed scientific assessments of seagrass ecosystem services in the five original project countries, having produced seagrass occurrence maps and blue carbon information. These data are now accessible online<sup>1</sup>, providing valuable information for policy-makers to develop evidence-based policies.

*Progress on sustainable business model establishment*

14. Community business partnerships have been established to implement sustainable business models aimed at fostering marine conservation and supporting local communities, with particular emphasis on women and youth. In Indonesia, Thailand, and Timor-Leste, a community-led ecotourism model has been developed to promote sustainable tourism practices while generating income for coastal communities. Additionally, in Indonesia, PT Niras is collaborating with YAPEKA to introduce spirulina farming as a sustainable business venture in two coastal communities. These business models have been designed to allocate a portion of profits towards conservation efforts, ensuring long-term funding for marine protection initiatives. Furthermore, in Malaysia, a conducted feasibility assessment has identified the potential establishment of a diving center as a viable business model for dugong conservation on Pulau Sibu and Pulau Tinggi islands.

*Progress on Community Engagement in Conservation*

15. Efforts to promote awareness of the value of seagrass ecosystems include a participatory video initiative that has engaged community members in documenting their traditional knowledge, cultural practices, and environmental concerns. Specifically, youth within these communities have been trained in videography and storytelling, enabling them to take ownership of content creation process. By sharing their narratives with a wider audience, these videos have contributed to the dissemination of vital information about seagrass ecosystems and fostered community engagement in conservation efforts. These videos have served to raise awareness of the importance of seagrass ecosystems and empower local communities to propose solutions to local challenges through storytelling.

**Action Requested**

16. The Meeting is requested to:

- (a) Note the significant progress achieved by the IKI Seagrass Ecosystem Services Project in advancing seagrass conservation, which is crucial for safeguarding dugong habitat.
- (b) Encourage relevant stakeholders, including States, non-governmental organizations, academia, local communities, private sector, and youth, to support, implement, and participate in initiatives and projects similar to the IKI Seagrass Ecosystem Services Project. This support aims strengthen seagrass research, monitoring, conservation, restoration, protection and related policies. Particularly, it emphasizes the recognition of the value of such ecosystems as Nature-based Solutions for climate mitigation and adaptation.
- (c) Encourage strengthened collaboration among relevant stakeholders, such as

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<sup>1</sup> <https://www.seagrasswatch.org/iki-seagrass-resources/>;  
Seagrass Ecosystem Services Project - Project Seagrass;  
"SEAS Blue - The IKI SES Project SE Asian Blue Carbon Dataset" by Paul Lavery and Anna Lafratta ([ecu.edu.au](http://ecu.edu.au));  
<https://www.seagrasswatch.org/iki-seagrass-thailand/>;  
[https://www.seagrasswatch.org/iki-seagrass-timor-leste/#how\\_to](https://www.seagrasswatch.org/iki-seagrass-timor-leste/#how_to);  
<https://www.seagrasswatch.org/iki-seagrass-philippines/>;  
<https://www.seagrasswatch.org/iki-seagrass-indonesia/>.

governments, non-governmental organizations, academic institutions, local communities, private enterprises, and youth. Foster resource mobilisation from diverse sources, including public, private, and international funding, to scale up seagrass ecosystem-based initiatives across the Dugong MOU Range States.