

PREFACE

The 7th EMBRIO International Symposium (EIS 2025), entitled “Oceans for the Future: Integrating Marine Biodiversity, Sustainability, and Resilience,” was organized by EMBRIO (Enhancing Marine Biodiversity Research in Indonesia), a Center of Excellence (CoE) at IPB University coordinated by the Faculty of Fisheries and Marine Sciences. The symposium was held online on September 2nd–3rd, 2025, and served as a scientific forum to strengthen international collaboration and disseminate recent research on marine and aquatic sciences.

Established in 2013, EMBRIO has been dedicated to promoting science and innovation-based utilization of marine biodiversity resources while strengthening efforts to understand, protect, rehabilitate, and sustainably manage Indonesia’s marine ecosystems. EMBRIO aims to become a central gateway for international scientists and research institutions seeking collaboration in Indonesia through multidisciplinary research, training, and academic exchange.

The theme “*Oceans for the Future*” highlighted the importance of integrated approaches in managing marine biodiversity, advancing sustainability, and enhancing ecosystem resilience in the face of global challenges such as climate change, pollution, and overexploitation. The symposium covered key thematic areas including marine biodiversity conservation, sustainable ocean practices, ecosystem resilience, integrated coastal management, technological innovation, blue economy development, and international cooperation.

The symposium featured keynote and invited speakers from national and international institutions. The keynote speakers were Prof. Dr. Rachmat Pambudy (Minister of National Development Planning/ Bappenas RI) with the topic was Navigating Indonesia's Ocean Future and Dr. Arif Havas Oegroseno (Vice Minister of Foreign Affairs RI) with the topic was International Collaboration. The invited speakers were Prof. Fang Qinhua (Xiamen University), Prof. Dr. Indra Jaya (IPB University), Dr. Muhamad Naimullah (Universiti Malaysia Terengganu), and Pilar Velasquez Jofre (ICAAD Guatemala).

The event was attended by 140 participants from various domestic and international institutions, resulting in 32 manuscripts to be published in the proceedings following a peer-review process. All accepted manuscripts underwent a rigorous review process, and selected papers were published in Bio Web of Conferences to ensure international visibility and scientific impact.

The organizing committee sincerely appreciated the contributions of all keynote and invited speakers, authors, reviewers, guest editors, and supporting institutions. It was hoped that the 7th EMBRIO International Symposium would foster meaningful scientific dialogue, strengthen research networks, and contribute to sustainable ocean management for present and future generations. This symposium and publication is funded by The Indonesia Endowment Fund for Education (LPDP) on behalf of Indonesian Ministry of Higher Education, Science, and Technology and managed under EQUITY Program (Contract No. 4297/B3/DT.03.08/2025-42011/IT3/HK.07.00-4/P/B/2025).