

Preface

The Frontier in Sustainable Agromaritime and Environmental Development (FiSAED) 2024 is an international conference organized by the Directorate of Strategic Studies and Academic Reputation, IPB University, in Bogor, Indonesia. This year's conference took place in a hybrid format, with the organizing committee on-site and virtual participants, from December 19 to 20, 2024. The theme for this edition, “Frontier Agromaritime at the Cross-Road for Addressing Complex Issues.” FiSAED 2024 featured four sub-themes: Sustainable Natural Resources and Environmental Management, Science and Technology for Sustainable Agromaritime, Environmental Health and Ecosystems, and Socio-economic Transformation for Sustainable Agromaritime.

A highlight of FiSAED 2024 was its focus on Agromaritime 4.0—a transformative vision that integrates cutting-edge technologies such as the Internet of Things (IoT), artificial intelligence (AI), drones, robotics, blockchain, genetic engineering, and nanotechnology into the sustainable management of terrestrial and marine resources. By adopting these innovations, the conference aimed to enhance precision and sustainability in resource utilization, in line with the United Nations’ Sustainable Development Goals (SDGs).

As the global population continues to grow, pressing challenges such as food security, climate change, and environmental degradation demand urgent attention. Agromaritime 4.0 offers promising solutions through the creation of smarter, more resilient systems capable of addressing these issues effectively. Technological integration within the agromaritime sectors enables precise monitoring of agricultural and marine environments, enhances logistical efficiency, and supports more sustainable farming and fishing practices.

By promoting collaboration, encouraging co-authorship, and supporting international alliances, FiSAED 2024 fostered a dynamic platform for cross-disciplinary knowledge sharing and innovation. These collaborative efforts play a crucial role in driving systemic change, strengthening community resilience, and ensuring the sustainable management of natural resources—key steps toward achieving broader sustainable development goals.

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