PROJECT NOTIFICATION

Reference No.: 660

Date of Issue	23 July 2025
Project Code	24-CP-13-GE-DLN-A
Title	APO e-Course on Smart Aquaculture
Timing	30 September 2025
Hosting Country(ies)	APO Secretariat
Venue City(ies)	Not Applicable
Modality	Digital Learning
Implementing Organization(s)	APO Secretariat
Participating Country(ies)	Open
Overseas Participants	Not applicable
Local Participants	Not Applicable
Closing Date	Not Applicable
Remarks	Timing is the launch date of the e-course.

Objectives	Learn about key concepts and applications of smart technologies in aquaculture; address challenges related to labor intensity, feed costs, energy saving, and water quality control through smart technologies; and promote sustainable aquaculture practices among APO member economies.
Rationale	This e-course will assist APO members in overcoming traditional challenges in aquaculture, e.g., labor intensiveness, feed costs, energy efficiency, and environmental management, by introducing digital technologies like sensors, automation, the IoT, and AI. These technologies enhance productivity, efficiency, and sustainability in aquaculture, contributing to inclusive, innovation-led growth.
Background	Aquaculture is one of the fastest-growing sectors in food production globally, with the FAO (2024) reporting that aquaculture contributed 130.9 million tons in 2022, surpassing capture fisheries. However, traditional aquaculture methods remain labor intensive and environmentally unsustainable. There is a pressing need for systematic innovation in the industry to reduce labor, improve efficiency, and support sustainability. Building on the momentum of the APO Workshop on Artificial Intelligence and Sustainability Applied in Aquaculture in 2025, this e-course continues efforts to disseminate knowledge and promote smart aquaculture practices among member economies. It will explore how smart technologies such as the IoT, big data, and AI address key challenges in aquaculture, particularly in feed optimization and water quality management. By introducing these innovations, APO members can enhance the productivity and sustainability of their aquaculture practices.
Topics	Smart aquaculture overview; Core technologies in smart aquaculture; Smart integration of recirculating aquaculture systems (RAS); AI/IoT applications in aquaculture management; and Smart aquaculture solutions and applications.
Outcome	Participants will gain insights into reducing labor, improving environmental sustainability, and optimizing operational costs in aquaculture through the application of smart technologies.
Qualifications	Open to all participants in APO members and nonmembers.

Please refer to the implementation procedures circulated with this document for further details.

Dr. Indra Pradana Singawinata
Secretary-General