

## **SEAFDEC's Views on the Theme “Capacity Building and the Transfer of Marine Technology: New Developments, Approaches, and Challenges”**

The development and transfer of appropriate technologies are fundamental to ensuring the sustainable utilization of marine resources, particularly in support of science-based management practices. In the Southeast Asian region, where fisheries are often multi-species and predominantly involve small-scale fishers, technology development and capacity building must address emerging regional contexts and the specific needs of countries and relevant stakeholders. SEAFDEC highlights the following updated priority areas:

- **Securing the Sustainability of Small-Scale Fisheries and Aquaculture for Food Security and Poverty Eradication:** Tailored technologies and capacity-building programs remain vital for enhancing livelihoods. This includes providing low-cost, user-friendly technologies for small-scale operators and improving access to financial and market opportunities.
- **Capacity Building to Combat Illegal, Unreported, and Unregulated (IUU) Fishing:** Strengthening Monitoring, Control, and Surveillance (MCS) systems, enhancing the implementation of port State measures, regulating transshipment at sea, and advancing traceability with modern tools such as Artificial Intelligence (AI) to ensure compliance and transparency.
- **Understanding and Addressing the Status of Fishery Resources with a Focus on Mixed-Stock Fisheries:** Developing approaches to resource assessment, especially for multi-species fisheries, and integrating socio-economic data to inform management and policy decisions.
- **Promoting Ecosystem-Based Management (EBM):** Strengthening capacity for implementing EBM frameworks tailored to local ecosystems, with an emphasis on climate change adaptation and marine biodiversity conservation.
- **Ensuring Quality and Freshness of Catch Onboard Small-Sized Fishing Vessels:** Promoting low-cost and innovative post-harvest technologies for small-scale fishers to reduce spoilage, extend product shelf life, and minimize food loss along the value chain.
- **Understanding and Mitigating Marine Debris, Including Abandoned, Lost, or Otherwise Discarded Fishing Gear (ALDFG):** Prioritizing the development of gear-tracking technologies, training for fishers on responsible gear disposal, and regional cooperation to address transboundary marine debris issues.
- **Addressing Challenges Related to Global Trade Measures:** Providing technical assistance to navigate complex trade-related requirements, including CITES provisions, WTO fisheries subsidies, and ensuring compliance with international certifications while protecting regional interests.
- **Fostering Sustainable and Climate-Resilient Technologies:** Scaling up innovations like offshore aquaculture systems, sustainable seaweed farming, and alternative livelihoods to mitigate climate risks and enhance adaptive capacity within fisheries-dependent communities.
- **Reducing Harmful Chemicals and Mitigating Antimicrobial Resistance (AMR):** Enhancing regional collaboration on awareness campaigns, implementing guidelines to reduce chemical use in aquaculture, and promoting alternative health management practices to combat AMR.
- **Advancing the Blue Economy and Circular Technologies:** Promoting green energy use, recycling initiatives, and circular economy models in fisheries to boost sustainability, create added value, and reduce environmental impacts

By addressing these critical and emerging issues, capacity building and the transfer of marine technology can foster a more sustainable, inclusive, and resilient fisheries sector, contributing to food security, poverty eradication, and the health of marine ecosystems in Southeast Asia.