

# AQUACULTURE, FISHERIES & COASTAL ZONE MANAGEMENT

**E**NSURING SUSTAINABLE USE OF AQUATIC RESOURCES, INCLUDING COASTAL & MARINE RESOURCES WHILE INCREASING SOCIAL, ECONOMIC & ENVIRONMENTAL BENEFITS AT THE SAME TIME.

Aquaculture and fisheries play a vital role in providing food and employment for hundreds of millions of people worldwide. Two-thirds of global fish consumption is in Asia, and in many Asian countries, close to 50% of protein is derived from fish consumption. Led by China, Asia contributes over 90% of global aquaculture production, and plays a key role in the development of appropriate aquaculture systems and technologies, including applications of biotechnology, vertical/indoor farming, automation and artificial intelligence (AI) and the internet of things (IOT). Strategic and innovative approaches in developing and managing aquaculture and fisheries are essential to ensuring productivity and sustainability in the face of challenges, such as overfishing and increasing degradation of aquatic ecosystems.

Coastal zones also face increasingly severe challenges as a consequence of population growth, poverty, resource use conflict, illegal activities, increasing industrial activity and the resulting pollution, biodiversity degradation, and policy and institutional gaps. Sea level rise, natural calamities and disasters exacerbated by climate change threaten coastal communities, ports, cities and tourism establishments. Management approaches that integrate sectors (government agencies, non-government organizations, and communities), disciplines (science, engineering & management), and land- and sea-based

activities (aquaculture, fisheries, tourism, agriculture, livestock, etc.) are essential to addressing the problems faced in coastal areas, especially in developing countries in Asia, Africa and South America.

AIT has experience and expertise in assisting countries and communities with these challenges. Integrated Coastal Management (ICM) is a dynamic, multidisciplinary and iterative process that promotes sustainable management of coastal areas. Marine Spatial Planning (MSP) is a process that brings together diverse users of the ocean (e.g., energy, industry, government, conservation and tourism) to make informed and coordinated decisions about how to use marine resources sustainably. Both processes encourage planning and sustainable management of marine, coastal and small islands resources, including habitats protection through land-use and sea-space planning, habitat restoration for sustainable well-being, clean water, and improved sanitation.



## What AIT offers



Extensive expertise in aquaculture, fisheries and coastal zones



Laboratories and field stations for hands-on training in relevant disciplines



Extensive network of universities, institutions and private companies.

Photo Credit: National Geographic



## Projects



“Aquaculture Development and Aquatic Resources Management in South & Southeast Asia” is an annual summer program for students at Shanghai Ocean University, P.R. China.



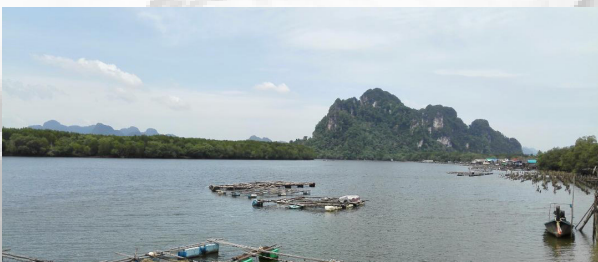
“Advanced Shrimp Farming” is a professional training course attended by participants from around the world.



Initially a collaboration with Iran Fisheries, the professional training course on White Shrimp Farming and Biofloc System was designed and offered for participants from Iran.



With the support of the Northern Marianas College Cooperative Research Extension Education Service, a course on On-farm Tilapia Feed Production was designed and implemented in Thailand for participants from Bangladesh and United States.



Funded by the GEF/IFAD Coastal Ecosystem Restoration and Sustainable Management Project, a course on Coastal Ecosystems Management and Sustainable Communities was designed and implemented in Thailand for participants from the Coast Conservation and Coastal Resource Management Department (CC&CRMD), Sri Lanka.



Funded by the GEF/IFAD Coastal Ecosystem Restoration and Sustainable Management Project, a course on ICM for Coastal Protection and Sustainable Management of Coastal Ecosystems was designed and implemented in Thailand and Vietnam for participants from the Coast Conservation and Coastal Resource Management Department (CC&CRMD), Sri Lanka.

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