



Can aquaculture be scaled up to feed the world without befouling the environment?

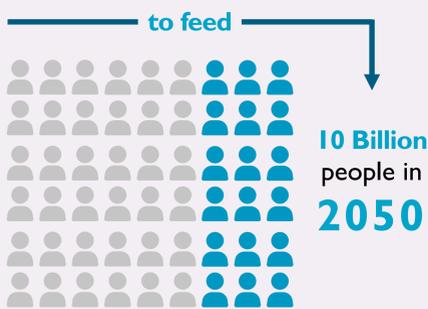
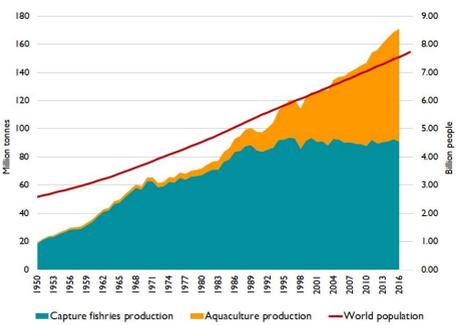


Aquaculture and Aquatic Resources Management (AARM) Academic Program

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AQUACULTURE TO FEED THE WORLD

Global aquaculture production



Expansion of aquaculture is limited by

- 1 Land and water scarcity
- 2 Access to technology, and
- 3 Environmental concerns...

- Global population will reach 10 billion by 2050, and about 70% of the people will live in urban areas
- Capture fisheries production has been stagnant since the late 1980s, remaining around 80 million tonnes
- Aquaculture has been responsible to supply fish to fulfill the increased demand for human consumption
- Aquaculture production should be doubled by 2050 to feed the world; but land and water resources are scarce
- Can aquaculture production be intensified without impacting the environment and society negatively—this is the question AARM addresses through its academic and research programs

AARM GRADUATES ARE FUTURE-READY

- AARM graduates have already occupied leadership positions in reputed organizations, and the global aquaculture industry, focusing on the development of innovative, productive, resource-efficient, and profitable technologies
- AARM continues to develop, test and transfer novel innovative technologies through building the capacity of students and institutions, globally

EDUCATION FOCUS @ AARM (AITaquaculture)



Designs, develops and implements sustainable production models



Enhances problem-solving skills



Develops entrepreneurial capacities



Applies modern tools and technologies



Specializes in frontier areas of aquaculture science and technologies



Provides hands-on exposure to Asian aquaculture

RESEARCH FOCUS—CLEANER AQUACULTURE SYSTEMS

The development of greener and cleaner, environmentally-friendly technologies in aquaculture production systems emphasizes on:

Biofloc technology and Biomimicry applications in aquaculture

Innovative feed and feeding systems in aquaculture

Recirculating Aquaculture Systems (RAS)

Genetic stock improvement

Integrated Multitrophic Aquaculture (IMTA)

Smart aquaculture

Aquaponics for urban aquaculture

Application of renewable energy in aquaculture production systems

Biosecure systems for healthy aquaculture

Rational utilization and management of aquatic resources and ecosystems

SUSTAINABLE ASIAN AQUACULTURE—SOCIAL IMPACT

Asia produces nearly 90% of the global aquaculture production. AARM research and capacity development programs aim to enhance and enrich the local knowledge and farming innovations, and strive to translate them into science-based, sustainable Asian aquaculture practices, towards meeting the future demand for global food supply.