

# AQUACULTURE III

## 2. WEEK

Aquaculture: Economic and Environmental

# WEEKLY TOPICS

Week	Topics
1. Week	Aquaculture Science and Aquaculture Engineering
2. Week	Aquaculture: Economic and Environmental
3. Week	Aquaculture: Innovation and Social Transformation
4. Week	Aquaculture: Food Ethics
5. Week	Shellfish Aquaculture and the Environment
6. Week	Advances in aquaculture hatchery technology
7. Week	Recirculating Aquaculture
8. Week	Selection and Breeding Programs in Aquaculture
9. Week	Ecological and Genetic Implications of Aquaculture Activities
10. Week	Aquaculture: Biotechnology
11. Week	Aquaculture nutrition: gut health, probiotics, and prebiotics
12. Week	Mucosal Health in Aquaculture
13. Week	Off-Flavors in Aquaculture
14. Week	Sustainable Aquaculture Techniques



# When aquaculture grows, so does its economic impact

January 13, 2017 by Andrea Littlefield, University of Maine

Read more at: <https://phys.org/news/2017-01-aquaculture-economic-impact.html#jCp>

- Farming of finfish, shellfish and plants in fresh and saltwater is the fastest-growing food production sector in the world and it's growing in Maine, too.

<https://phys.org/news/2017-01-aquaculture-economic-impact.html>



# Societal and Economic Impacts of Aquaculture

Matthew J. Slater

JWAS Section Editor

Monday, August 7, 2017

- Most insights into aquaculture's societal effects come from developing nations. In industrial nations, aquaculture is known to bring jobs and infrastructure, particularly to isolated rural areas. Many aquaculture industries in developed nations suffer from low availability of high-paying jobs combined with a lack of appropriately trained staff willing to work in menial positions for low wages. Nonetheless, job retention in isolated areas helps stabilize community structure and drives secondary industry and services.

<https://www.was.org/articles/Societal-and-Economic-Impacts-of-Aquaculture.aspx#.Wwz9LfZuKUK>

# Aquaculture Economics in Asia and the Pacific

A Regional Assessment

Renato F. Agbayani, Evelyn T. Belleza and Emelita C. Agbayani

- Three billion people, or 70% of the world's population, live in Asia and the Pacific. Although every year three to four Asians are placed on Fortune's list of the 20 richest people in the world, the majority of Asians live below the official poverty line.
- Producing food, generating employment and providing basic social services for the burgeoning population, and earning foreign exchange to fuel economic development, are among the top priorities of Asia-Pacific countries.

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- ▶ The region's vast and rich coastal and inland waters have been a major source of adequate and cheap protein food and livelihood for the people. In the past, the seas teemed with exportable species of fish. But over the years, overfishing, destructive fishing practices, and industrial and human wastes have gradually depleted the rich aquatic resources. People turned to aquaculture for food, livelihood and export.

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- ▶ Aquaculture in Asia dates back many centuries in China. As the Chinese dispersed to other Asian countries, they brought with them the practices and the fish that were adaptable to their new environment. The culture methods were low-cost and extensive; the produce was consumed mainly by the farmers' households and nearby communities. Indonesia and India are also pioneers in fish culture who have had great influence on the practices and direction of aquaculture in Asia.

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- ▶ Asia dominates global aquaculture production. In 1995, Asia's production leaped by 15% - from 15.9 million mt in 1994 to 18.27 million mt, which is 87% of the total world production of 21 million mt (Fish Farming International, June 1997). In comparison, aquaculture production in the rest of the world in 1995 was: Europe, 1.41 million mt (6.2%); North America, 600 000 mt (2.86%); South America, 329 000 mt (1.56%); Oceania, 94 700 mt (0.45%); and Africa, 82 000 mt (0.39%). (These figures do not include seaweed production which is estimated at 6 million t worldwide.)






Review Article

## World Aquaculture: Environmental Impacts and Troubleshooting Alternatives

- Aquaculture has been considered as an option to cope with the world food demand. However, criticisms have arisen around aquaculture, most of them related to the destruction of ecosystems such as mangrove forest to construct aquaculture farms, as well as the environmental impacts of the effluents on the receiving ecosystems.

Martinez-Porchas, M. and Martinez-Cordova, L.R. 2012. World Aquaculture: Environmental Impacts and Troubleshooting Alternatives. The Scientific World Journal <http://dx.doi.org/10.1100/2012/389623>

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  - The State Of World Fisheries And Aquaculture 2016, Fao. 2016
  - Advances In Aquaculture Hatchery Technology 2013, Woodhead Publishing Series In Food Science, Technology And Nutrition: Number 242
  - Aquaculture: An Introductory Text, 2005, Robert R. Stickney
  - Aquaculture Farming Aquatic Animals And Plants, 2012, John S. Lucas