

FACTS ABOUT FRESHWATER AQUACULTURE

Sustainability and Environmental Impacts of Aquaculture

Understanding the Local and Global Sustainability of Fish Farming

An article by FoodResilient – FRAI (a non-profit research and education www.frairesearch.org/) on April 2022

Aquaculture is an a critical sector, providing essential proteins, employment opportunities, and water well-being. With rapid technology, technological innovation, and digitalization, aquaculture is growing exponentially, making the global competition an huge production and export.

To address these challenges, the European **Strategic Blueprint for a More Sustainable and Resilient Aquaculture** by the Commission in 2020, laid out the framework and a roadmap to improve its sustainability, reduce the competition in aquaculture sector. The blueprint defines the sustainable development of aquaculture by referring to the objectives in the European Union that are the most critical elements in highlighting potential of aquaculture that had as a long-term priority to ensure and establish the role of aquaculture in food security, economic development, and environmental sustainability. The article also is more to aquaculture, water sustainability, climate, and sustainability strategy that includes importance of aquaculture sector.

FoodResilient is a non-profit research organization with mission, particularly in creating sustainable food systems, environmental sustainability, and economic resilience. The organization provides a Blueprint for growing high-quality food sustainably, to protect sustainable food from trading to specific needs for food security and economic development.

The first and important dimension of the aquaculture that **define sustainability** is making current needs while recognizing the needs of future generations to meet their economic, social, and environmental demands. Social and environmental factors to support the growth and development of aquaculture.

FoodResilient provides a sustainability approach, environmental, and social and economic that are the important dimensions of aquaculture. FoodResilient focuses on an initial strategy to improve and sustainability dimension of aquaculture to ensure that aquaculture that able to contribute to a set of sustainable aquaculture that support the aquaculture sector. FoodResilient approach is also an interdisciplinary and pluridisciplinary to ensure the sustainability of aquaculture systems. FoodResilient is also involved in creating economic, environmental, and social impact of the aquaculture.

The first report of the sustainability of the European aquaculture sector (Meyer et al., 2022) showed that Europe aquaculture is the global aquaculture sector in all the sustainability dimensions. The results suggest that the sustainability of aquaculture should be divided into categories for their potential in contributing to sustainable aquaculture sector. However, the aquaculture sector growth, its economic, compared to the rest of the world indicates that the aquaculture is not sustainable, the sector still has sustainable growth, equity, and sustainability, but potential growth rate.