

Aquaculture and Ecosystems

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Aquaculture, for many years, has been the fastest growing food producing sector in the world. It now contributes nearly half of the global food fish production and, by the year 2030, it will require to produce an additional 27 million tonnes (over 50% from the current production) to meet the growing demand for food fish. Asia has dominated aquaculture production and is expected to continue to be the leading producing region, and a major consumer of aquatic products. In Asia, as well as globally, aquaculture provides key social and economic benefits, through contributing to food security; providing employment; contributing to national and international trade; generating household and national income; and as a means of alleviating poverty. Aquaculture also relies heavily on various ecosystem services and goods, and may cause both positive and negative environmental impacts depending on such factors as farm location, species farmed, farming system and management practices adopted.

Aquaculture development today faces unprecedented demand for its products, but faces a number of serious environmental challenges in meeting this future demand. A number of overarching external drivers are challenging the sector, and particularly small-scale aquaculture, including increasing competing pressure on available land and water resources for expansion, pollution, climate change, natural disasters, as well as global market risks. The presentation discusses our current understanding of the relations between aquaculture and ecosystems, with an emphasis on Asia, explores the future trends and how aquaculture production systems, and their management, will need to adapt to be better integrated into surrounding ecosystems.



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