

Genesis of the workshop

BACKGROUND

Aquaculture is a fast-growing food-producing industry that currently supplies almost 50 percent of the world's food fish and probably has the greatest potential to meet the growing demand for aquatic food. Given the projected global population growth over the next couple of decades, it is estimated that at least an additional 40 million tonnes of aquatic food will be required by 2030 to maintain the current per capita consumption. From an activity that was primarily Asian, aquaculture has now spread to all continents. Furthermore, from an activity that focused on freshwater fish, particularly cyprinids, it now encompasses all aquatic environments and many aquatic species. The present situation, in terms of availability and competition for natural resources, environment protection and population growth, along with advances in biotechnologies, marine engineering, etc., brings with it great potential but also complex challenges in the development of aquaculture.

The rapid expansion of the aquaculture industry has resulted in the demand for more resources (e.g. freshwater, feed) and space to accommodate it. The search for additional areas to expand aquaculture and the identification of new farming species of commercial value to satisfy the growing local and export markets are pushing the sector to expand the mariculture subsector and, in some countries, to expand its activities farther off the coast and offshore where more space is available, where competition is currently less intense, and where environmental impacts from and on aquaculture can be minimized and food safety optimized. As mariculture is offering an ever-increasing opportunity for the sector to expand and become a major supplier of animal protein, a number of issues covering biosecurity, economic, environmental and social aspects will need to be addressed within an ecosystem perspective in order to ensure sustainable growth in the long term.

Despite the global interest in developing mariculture including offshore aquaculture, comprehensive estimates of spatially quantified potential for growth of the industry are scarce. Exclusive economic zones (EEZs), claimed by nearly all countries, are the main areas in which mariculture can expand to the open ocean from present-day operations in sheltered inshore or nearshore areas. Although globally mariculture contributes importantly to overall aquaculture production and value, out of the 145 sovereign nations with EEZs, only 17 of them account for 98 percent of mariculture production. The future contribution of mariculture both for sustainable livelihoods and to provide fish to world markets will be determined, among other factors, by how much area will actually be available for mariculture development among other competing uses and whether farming practices will be truly environmentally friendly, socially sound and economically relevant.

There are also significant knowledge gaps regarding the types of species to be used, the technologies, the environmental issues and the required governance to ensure sustainable offshore mariculture. Finally, FAO requires a global expert perspective to better understand how to further promote and assist offshore mariculture development in all countries where there is the potential.

PURPOSE

The objective of this workshop was to discuss the growing need to transfer land-based and coastal aquaculture production systems farther off the coast and provide recommendations for action to FAO, governments and the private sector.

IMPLEMENTATION AND PARTICIPATION

The workshop took place on 22–25 March 2010 in Orbetello, Italy, and was organized by the Aquaculture Branch of the Fisheries and Aquaculture Department of the Food and Agriculture Organization of the United Nations (FAO). The workshop was attended by 13 internationally renowned experts from eight countries (Canada, Chile, Denmark, Israel, Italy, New Zealand, Norway, the United States of America), and eight staff members of FAO, and covered different core topics and represented different regions of the world. Expertise within this group included the academic, regulatory and consultative sectors of the industry, thus giving a wide perspective of views on the core topics. The list of participants is provided in Annex 2.