**Comment**

# Looking at aquaculture

Today, over 44 per cent of global fish production for direct human consumption originates from aquaculture. However, even as we recognize the potential role of aquaculture and mariculture in contributing to employment and food security, there are several questions that need to be answered: Can aquaculture and mariculture practices be undertaken without displacing farming and fishing communities, without destroying habitats, and without reducing biodiversity? Can aquaculture help to reduce pressure on coastal fisheries by providing alternative employment? Can it contribute to food security and poverty alleviation? Can aquaculture ensure decent conditions of work and fair wages to the workers in the sector? Is there anything that can truly be called 'sustainable aquaculture'? These are some of the questions that are being asked by fishing, farming, and other communities in coastal and inland areas where aquaculture is being practised.

Global aquaculture production has doubled from 20.7 mn tonnes in 1994 to 45.08 mn tonnes in 2004. Asia alone accounted for 90 per cent of this production. During the same period, the production of shrimp trebled from 0.8 mn to 2.4 mn, and that of Atlantic salmon, from 0.4 mn tonnes to 1.2 mn tonnes. Statistics of employment opportunities in aquaculture are available for some countries. Over four million people, for example, depend on aquaculture for life and livelihood in China and Bangladesh, over two million in Indonesia, and over one million in India and Vietnam.

The *State of World Aquaculture 2006* from the Food and Agriculture Organization of the United Nations (FAO) acknowledges that "there is still insufficient information on trends in the contribution of aquaculture to employment, poverty reduction, health, nutrition and social development, and the impact of aquaculture on the environment". There is also poor information about women workers in aquaculture. The FAO report also acknowledges that aquaculture workers in Latin America are affected by decreasing wages.

Undeniably, aquaculture has made rapid strides in increasing production during the last couple of decades. Analysts predict a future of continuing growth, intensification and diversification of aquaculture. Yet, disturbingly, there is very little conclusive information on the positive social and environmental impacts of aquaculture on rural communities. In such a situation, it is difficult for rural communities to take a position on aquaculture development. The countries that are investing in rapid development of aquaculture should ensure that aquaculture does indeed contribute to sustainable development, and that it does not leave in its wake an abused labour force, swathes of degraded mangrove forests, contaminated inland and coastal waters, threats to biodiversity from the introduction of exotic species, and destruction of natural habitats.

We would argue for a perspective that places fisheries and aquaculture within the framework of the human development of rural communities (see pg. 48). In this context, aquaculture development should be subject to checks and balances to ensure that it is not reduced to a mere investment activity by a few who have access to capital and can thus extract all benefits of nature, at the expense of local communities and their livelihood options.