Nearly half of all fish eaten today farmed, not caught
Aquaculture only way to meet surging demand, but challenges to future growth loom

4 September 2006, Rome/New Delhi - Nearly half the fish consumed as food worldwide are raised on fish farms rather than caught in the wild, says a new report from FAO.

"The State of World Aquaculture 2006" was presented today to delegates from more than 50 countries attending the biennial meeting of the FAO Sub-Committee on Aquaculture (New Delhi, 4-8 September*).

While in 1980 just 9 percent of the fish consumed by human beings came from aquaculture, today 43 percent does, the report shows.

That's 45.5 million tonnes of farmed fish, worth US$63 billion, eaten each year. (Currently, freshwater and marine capture fisheries produce 95 million tonnes annually, of which 60 million tonnes is destined for human consumption).

Not enough fish in the sea

Globally, consumer demand for fish continues to climb, especially in affluent, developed nations which in 2004 imported 33 million tonnes of fish worth over US$61 billion -- 81% of all fish imports that year, in value terms.

But levels of captures of fish in the wild have remained roughly stable since the mid-1980s,

Criticism overshadows aquaculture's many benefits

Aquaculture is frequently criticized as having a negative impact on the environment, which tends to overshadow its contributions to fighting hunger and alleviating poverty.

"If you paint with a very broad brush, yes, there are concerns from an environmental perspective -- but the picture is just not simple or monolithic," says Jiansan Jia, Chief of the Inland Fisheries and Aquaculture Service in FAO's Fisheries Department.

According to Jia, problems vary from country to country and operation to operation, and in many cases are overplayed.

"This doesn't mean we should
hovering around 90-93 million tonnes annually.

There is little chance of any significant increases in catches beyond these levels, FAO says.

The agency's most recent global assessment of wild fish stocks found that out of the nearly 600 species groups it monitors, 52 percent are fully exploited while 25 percent are either overexploited (17%), depleted (7%) or recovering from depletion (1%). Twenty percent are moderately exploited, with just three percent ranked as underexploited.

"Catches in the wild are still high, but they have levelled off, probably for good," explains Rohana Subasinghe of FAO's Fisheries Department and Secretary of the Sub-Committee on Aquaculture.

This levelling off, coupled with a growing world population and increasing per capita demand for fish, spells trouble.

FAO's report estimates that an additional 40 million tonnes of aquatic food will be required by 2030 -- just to maintain current levels of consumption.

The only option for meeting future demand for fish, Subasinghe argues, is by farming them.

There's just one question.

**Can aquaculture actually deliver?**

The jury is still out, according to FAO's report.

"Aquaculture could cover the gap between supply and demand, but there are also many forces which could pull production in the opposite means we should fix the problems and make aquaculture more sustainable," he asserts. "If you look around, in many places major strides have been made to make aquaculture more sustainable. It's do-able."

**Fish farming: a big business that often benefits the poor**

The international trade in fish products (both captured and farmed) is currently worth over $71 billion a year in 2004.

And some 77 percent of fish consumed globally as food is supplied by developing countries. Their annual net earnings from this trade currently run in excess of $20 billion, more than their earnings from any other food commodity, including coffee and tea. This provides both direct and indirect employment, and helps governments pay for social services and capital improvements.

However many farmed fish species are raised for local or regional consumption, especially in Asia, highlighting the important role of aquaculture in strengthening food security.
direction, making it difficult for the industry to grow substantially enough to meet demand in the decades to come," it notes.

Aquaculture has been experiencing a boom since the mid-1980s, sustaining a growth rate of around 8% per year. Today it continues to expand in almost all world regions, with the notable exception of sub-Saharan Africa.

But FAO is concerned that momentum could taper off if governments and development agencies don’t adjust their policies to respond to emerging challenges that threaten to damper the sector's future growth.

One serious bottleneck, says FAO, is the lack of investment capital for producers in the developing world. Another is a shortage of land and freshwater for use in aquaculture. Rising energy costs also pose a problem, and environmental impacts and questions of product safety continue to require attention.

Let them eat...?

The agency's report also points to doubts regarding future supplies of fishmeal and oil, used to feed carnivorous cultured species, such as salmon, grouper and sea bream.

Since 1985, world production of fishmeal and fish oil -- manufactured using fish which are caught in large volumes but which are not consumed by humans -- has stabilized at 6 to 7 million tonnes and one million tonnes, respectively.

While the vast bulk of fishmeal is used for livestock feed, chiefly by the poultry sector, aquaculture now accounts for 35 percent of the world's
fishmeal supply. So as aquaculture's fishmeal needs grow, competition with terrestrial livestock for a limited resource will intensify, with ramifications for both price and availability.

Key to resolving the dilemma will be continued progress in improving the efficiency of feed formulations -- reducing the amount of fishmeal they contain -- and coming up with adequate vegetable-based additives.

"We need to start planning now for handling these challenges, because aquaculture is crucial to the fight against global hunger," Ichiro Nomura, FAO Assistant Director-General for Fisheries, says. "It offers a source of food that is rich in protein, essential fatty acids and vitamins and minerals. And it offers a way to boost development by providing jobs, improving people's incomes, and increasing returns on natural resource use. We must ensure that the sector continues to expand, sustainably, to provide more people with food and income, especially in areas like sub-Saharan Africa and Asia, where hunger and poverty prevail."

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