

# Salient Issues for Fish Trade

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*There are a number of issues and developments that affect international trade in fish and fishery products and are important for the various stakeholders in the value-chain. In addition, there are emerging issues of relevance, in particular as they relate to producers, processors and exporters in developing countries.*

## Production

Total world fish production (capture and aquaculture), excluding aquatic plants, have grown to an estimated 143.7 million tonnes in 2009 and is expected to reach 145 million tonnes in 2010. China confirms its role as the principal producer, reporting 48 million tonnes in 2008, of which 33 million tonnes derived from aquaculture<sup>1</sup>. Overall, 80 percent of world production of fish and fishery products takes place in developing countries.

Compared with figures a decade ago, the current supply represents an increase of more than 20 million tonnes. This additional supply is entirely due to increases in aquaculture production. Preliminary data for 2009 indicate 54 million tonnes (excluding aquatic plants) or 38 percent of total output. Estimates for 2010 show only a slight new growth in farmed production to 55.5 million tonnes. This is in part a supply response from producers after demand started falling in 2008. The sharp decline in the long-term growth rate of aquaculture production is, however, cause for great concern, not only in terms of future food security, but also from technological and managerial perspectives. It is clear that in many countries, significant challenges remain in order for the aquaculture sector to reach its full potential and become economically, environmentally and socially sustainable.

## Consumption

World per capita consumption of fish and fishery products has risen steadily over the past decades. Estimates for 2009 show a stable per capita consumption at 17.1 kg with the contribution of aquaculture to the food fish supply estimated at 47 percent of the total.

A large share of the rise in fish production in the world relates to China, where domestic consumption of fish and fishery products per capita has increased from less than 5 kg in the 1970s to the present 25.8 kg. In the world as a whole, excluding China's domestic consumption, it is about 14.0 kg per capita. In essence, much of the increase in total production of fish in the world has not only taken place in China, but has been consumed in China. Developed countries have a much higher consumption of fish than developing countries, 24.0 kg per caput the first group, 14.4 kg the latter when including China and 10.6 kg when excluding China.

In general, urbanization and the growth of modern distribution channels for food have increased the potential availability of fish to most of the world's consumers. In some markets this has indeed enhanced fish consumption but not in others. It is also evident that economic and cultural factors strongly influence the level of fish consumption, and that availability alone is not the only factor.

## Different price developments on capture and farmed products

Fish prices are influenced like those of other products both by demand and supply factors. At the same time, the heterogeneous nature of the sector with hundreds of species entering international trade makes it challenging to estimate price developments for the sector as a whole. FAO has initiated the construction of a fish price index to better illustrate both relative and absolute price movements. The index is being developed in cooperation with the University of Stavanger and with data support from the Norwegian Seafood Export Council.

The aggregate FAO Fish Price Index increased markedly from 81.3 in early 2002 to 126.4 in September 2008 although with strong within-year oscillation. After September 2008, the index fell drastically reaching 110.3 in March 2009, after which it has recovered to 115 in March 2010 (base year 2005 = 100). In addition to the aggregate index, separate indices have been developed for the most important commodities, as well as for capture and farmed species. It is interesting to note that the index shows quite separate price developments over time for captured fisheries and for aquaculture.

The former increased significantly in the 2002–2008 period whereas aquaculture prices, despite some firming during the same period, are indeed lower today than they were ten years ago. The main reason is probably related to the cost of input factors and the difference in production levels over this period; capture fisheries are frequently energy and capital intensive, whereas large-scale commercial aquaculture, although capital intensive, has benefited to a greater degree from technological improvements and economies of scale. This has increased yields in production, and together with improved logistics and distribution systems, permitted a significant increase in farmed output but at lower prices.

### Value chain developments

A value-chain contains numerous stakeholders. They are impacted by the factors listed below to a varying degree depending on their position in the value-chain, their contractual relationship and the relative strength of negotiation in their relationship with suppliers and clients. In addition, whereas some of these factors are of a more transitory nature with an immediate market impact, others are of a long-term nature in which the real impact may only be speculative at this stage.

Some of the major issues concerning international trade in fishery products which continue to impact international trade, are:

- introduction of private standards by international retailers, including for environmental and social purposes;
- continuation of trade disputes related to farmed products: catfish species, shrimp and salmon;
- the growing concern of the general public and the retail sector about overexploitation of certain fish stocks, in particular of blue fin tuna;
- widespread concern in exporting countries about the impact on legitimate exports of the new traceability requirements introduced in 2010 in

- major markets to prevent Illegal, Unreported and Unregulated (IUU) fishing;
- the approval by FAO Conference of the Agreement on Port State Measures to prevent, deter and eliminate IUU fishing;
- the proliferation of eco-labels and their uptake by major retailers;
- organic aquaculture and the introduction of new standards in major markets;
- certification of aquaculture in general;
- the multilateral trade negotiations in the World Trade Organization (WTO) including the focus on fisheries subsidies;
- dissipation of economic rent in the fisheries sector due mainly to overcapacity;
- climate change, carbon emissions, food miles and the impact on the fisheries sector;
- energy prices and the impact on fisheries;
- rising commodity prices in general and the impact on producers as well as on consumers;
- the impact on the domestic fisheries sector from a surge in imports of farmed products, in particular of pangasius;
- the role of the small-scale sector in future fish production and trade;
- prices and distribution of margins and benefits throughout the fisheries value-chain;
- the need for competitiveness versus other food products; and
- perceived and real risks and benefits from fish consumption.

Of particular concern is the role of the small-scale producer, whether in capture fisheries or in aquaculture. The fragmentation of production and the vast numbers of operators at the first level of production has always weakened their commercial negotiating position. More recently however, the fragmentation and lack of organizational structures have become a weakness in areas of quality and safety for which more formal structures are required, necessary for new requirements such as traceability. As a response, small-scale producers in some countries, particularly in Asia, have developed producer clusters. This has enabled them to enter the formal economy and the value-chain on their own merit. In addition, it has facilitated transfer of know-how and experience, thereby improving production yields and economic results.

New regulations in major markets on traceability to prevent IUU fishing, will, at least in the initial phase of implementation, place an additional burden upon many developing countries fisheries, whether small-scale or not. From 1 January 2010, the EU's

Regulation (EC) No 1005/2008 requires that imports of wild caught fish and fishery products supplied to EU member states from third countries are accompanied by a Catch Certificate validated by the competent fisheries management authority of the flag state of the vessel that caught the fish.

The fragmentation of fisheries producers continues to hamper their ability to respond proactively to emerging issues and challenges advocated by consumer groups, retailers, civil society through NGOs, and to regulatory initiatives by governments. In particular, the harvesting sector has at times seemed reluctant to engage in a proactive dialogue with civil society and consumers on the legitimate role of modern fisheries and its future. A more active role in the debate involving producers, government, science and civil society would enable industry to address the issue of sustainability from an economic and social perspective, rather than being forced to respond to external pressure on environmental factors alone.

### Outsourcing of processing

Over time, processors in developed countries have seen margins decrease mainly due to high labour costs and strong competition from efficient producers in developing and transition countries. As a result, raw material is more frequently being sent to low-cost processing countries. Processors have, through improved processing technology, been able to achieve higher yields and a more profitable product-mix from the raw material. Producers of traditional products, in particular of canned fish, have been losing market share to suppliers of fresh and frozen products as a result of long-term shifts in consumer preferences. Consequently, the price of canned fish products has dropped in most markets.

### Increasing market power by retailers

One widely debated issue, especially among producers, is that of the role of the retail sector within the distribution channel. It is often stated that the retail sector takes a disproportionate share of the value created from fish and fishery products. Many studies indicate that their share is indeed large, yet, most of these studies do not include cost or net margin considerations, nor do they consider the intense level of competition at the retail level which normally would bring down any abnormal profit. In fact, industry reports in both Japan and the United States of America (USA) indicate that the retail chains have lower net margins on fish products than on other products. More studies are needed to look further into this relationship, including on how shorter distribution channels between producer and

the consumer can improve efficiency and increase benefits, in particular to the primary producer.

### Consumers

Consumers are increasingly concerned about sustainability issues, especially overfishing and global warming. Air transportation of food is increasingly questioned. Health and well-being are other factors influencing consumption decisions; this explains in part the rise of the organic food sector. In the fisheries sector, organic production has been hampered by lack of market-wide standards in the most important markets. New regulations in the EU and the United States have the potential to lower costs of certification and thereby increase the market for organic seafood products. Supply remains a weak point given the narrow range of species and products currently available. However, the principal purchasing parameters among consumers remain price and food safety. The perceived benefit of fish consumption remains strong in most consumers' minds.

### Fish and the WTO

The negotiations of the WTO Doha Development Agenda initiated in 2001, are still on-going. The two major issues of relevance to the fisheries sector continue to be 1) fisheries subsidies, discussed in the Negotiating Group on Rules, and 2) market access, discussed in the Negotiating Group on Non-Agricultural Market Access.

After the accession of China in 2001 and Viet Nam in 2007, all major fish producing, importing and exporting countries have become WTO members, with the exception of the Russian Federation. Membership of the WTO is a pre-requisite for having access to its Dispute Settlement Mechanism. Countries that joined WTO in 2008 were Cape Verde and the Ukraine.

### Recent developments in fish safety and quality

Developments and implementation of fish safety and quality regimes continue to evolve in order to integrate further the application of scientifically-based risk analysis methods in food safety management and to ensure consumer protection. This evolution is affecting the entire fish and fish products supply chain and requires that the responsibility for the supply of safe, healthy and nutritious seafood is shared by all involved in the production, processing, trade and consumption, from "sea to table".

In the major markets, namely EU, Japan and the USA, which import around 75 percent of the internationally traded fish, implementation of different regulations domestically and in exporting countries continues. These regulations require that fish and fish products be produced and prepared/processed in farms and establishments that have implemented pre-requisite programmes of good practices and HACCP-based quality control programmes. Fish farms and establishments are to be certified as meeting these requirements. Likewise, national surveillance programs of the harvesting areas should be in place to control the threats of biotoxins and other biological and chemical pollutants and residues of veterinary drugs.

The EU has continued its application of the food and feed hygiene legislation and regulations which entered into force on 1 January 2006. Many countries which supply fish and fish products to the EU market have been visited by the Veterinary Commission to verify the degree of conformance with EU requirements and promote further equivalence.

The Food Protection Plan (FPP) of the US Food and Drug Administration (FDA) aims to generalize the use of science and the risk-based approach of prevention, intervention and response to improve the safety of foods consumed in the USA; it has continued to expand the seafood safety requirements set at the point of production and manufacture in exporting countries. For this, the FDA has established agreements with several exporting countries to strengthen collaboration, provide technical assistance to foreign regulators and industry and establish foreign FDA offices. The establishment of such agreements and arrangements include the involvement of China, India, and countries from Latin America, Europe and the Middle East. The FDA is also increasing resources to verify that fish and fish products made or processed overseas conform to FDA safety standards and requirements before they are imported. These voluntary third-party certification programs can include a private certification entity or a non-FDA federal, state, local or foreign regulatory body recognized by the FDA<sup>2</sup>.

In Japan, application of HACCP-based food control regulations is pursued, including sanitary and hygienic requirements for fish handling and processing establishments and conditions for storage and

transport. Incorporation of risk analysis principles continues, but spot checks at the entry border are still prevalent. In this respect, the quarantine offices of the Ministry of Health and Welfare test about 10 percent of cargo for specific chemical residues or indicator/pathogenic microorganisms. When non-compliance is detected, 50 percent of the cargo from that country may be subjected to testing and this can be increased to 100 percent mandatory testing if further non-compliance is detected. Bilateral consultations with exporting countries to clarify the Japanese sanitary requirements and assist in their implementation at the early stages of the food chain continue.

Several exporting countries, especially many developing countries, continue to face difficulties to meet the requirements of the major import markets and experience restricted access to some markets, while others have seen their products rejected or detained at the border. While FAO's technical assistance continues to target these needs, further harmonization and equivalence agreements are needed to increase transparency and promote science-based consumer protection and lessen the disruption of international fish trade flows.

At the international level, the Codex Alimentarius Commission has continued to promote the development of internationally agreed standards that are based on scientific principles and fulfil the objectives of consumer health protection and fair practices in food trade. Implementation of the Commission Strategic Plan 2008–2013 is being reinforced as more Members, including from developing countries, are becoming active in the scientific and technical deliberations of the various Codex committees, in particular those dealing with fish and seafood safety and quality issues, such as the Codex Committee on Fish and Fishery Products, on Food Hygiene, Veterinary Drugs, Additives and Contaminants, etc. ■

<sup>1</sup>In 2008, China revised its 2006 production statistics to reduce about 13 percent based on its Second National Agriculture Census conducted in 2007. This implied the downward adjustment of global statistics by about 2 percent in capture production and 8 percent in aquaculture production. Historical statistics of China for the period 1997–2006 were subsequently revised by FAO with the revision process known and acknowledged by the Chinese authorities.

<sup>2</sup><http://www.fda.gov/RegulatoryInformation/Guidances/ucm125431.htm>.