10 Packaged to Perfection: The SPS Agreement and Aquaculture in Bangladesh

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Background

With the reduction of tariff barriers, there is a danger that alternative forms of protection will be utilised, including arbitrary technical barriers to trade, as well as sanitary and phytosanitary measures. The Uruguay Round Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement), adopted by WTO members in 1995, attempts to address the application of measures associated with the protection of human, animal and plant health in such a way that they are not a disguised restriction on international trade. The Agreement states that the measures should be scientifically based and stresses the importance of risk assessment in determining the appropriate level of protection.

However, there are strong indications that these measures are being applied in ways that affect livelihoods in developing countries – in some cases bringing about a total ban on exports of food products and in others leading to a restructuring of food industries in ways that have a negative impact on the livelihoods of poor farmers in general and women in particular.

International trade in fish and fish products has grown rapidly over the last 20 years. Export values rose from US$15 billion in 1980 to $56 billion in 2000. In the same period, developing countries' share of total exports rose from 40 to 50 per cent, with their net receipts from the fish trade increasing from less than $4 billion to almost $18 billion. Developed countries – primarily Japan, the USA and European countries – absorbed 80 per cent of total world imports.

It is in the economic and national interests of fish exporters from developing countries to ensure that they supply acceptable products to maintain their export earning as well as their commercial reputation (Greenhalgh, 2004). However, the complex requirements for food safety assurance and traceability set by major markets, particularly in Europe and North America, represent a threat to existing exporters and a barrier to new ones. Increasing outbreaks of food-borne illness, alongside consumer concerns over inter-regional disease transmission, have driven the development of more stringent laws and regulatory frameworks. New regulations with

regard to quality control, such as the Hazard Analysis Critical Control Point (HACCP), have been adopted by all major importing countries (except Japan) and have been made compulsory for their fish processing industries. In terms of the impacts on developing countries, the regulations based on the HACCP shift the burden of responsibility to the exporting processors or traders by making them fully responsible for the quality of the product in terms of food safety.

The EU has been at the forefront in developing food safety standards and has had a profound influence on the development of the fish trade in developing economies. In particular, it has introduced 'farm to fork' principles that cover not just the main processing functions, but all steps from the primary producer (e.g. fishermen and aquaculture units) to the consumer. These override individual commodity-based directives. The result for exporting countries is that all steps in the chain have to take on board, in a more structured way, the principles of HACCP systems and other quality assurance needs, thus broadening the scope of the competent authority in regulating the industry.

The need to ensure that quality assurance measures are instituted prior to arrival at the processing factory gate poses a major challenge to export industries, particularly for the small-scale and non-industrialised sectors. Of even greater concern is the fact that in order for the 'farm to fork' principle to be seen to be working, a system of traceability of products throughout the chain needs to be instituted. This requires that each person in the chain is able to demonstrate that they know where the product has come from and where it has gone. Where small quantities of product are consolidated into larger batches from, say, traditional fishermen to purchasers at landing points, this presents particular problems as mixing of batches means that particular raw material supplies cannot be traced back to source (Greenhalgh, 2004).

This case study looks at the knock-on effects that these new measures are having on poor producers, particularly women, in the aquaculture industry in Bangladesh.

Women and the poor in shrimp and prawn farming in Bangladesh

In Bangladesh, shrimp and prawns constitute more than 70 per cent of exports of primary products and about 25 per cent of all exports excluding ready-made garments. The industry also employs about one million people up and down the supply chain. A large proportion of those in occupations such as fry catching are women, who are also the majority of workers in pro-

cessing plants. Of the total volume of exports, 85 per cent are cultured. Half of the exported volume is freshwater prawns (known locally as *golda*) and the other half is brackish-water shrimp (*bagda*). *Golda* farming involves a larger number of small and landless farmers than *bagda* farming.

There are five major layers of activities that link local stakeholders in the export-oriented shrimp industry. At the top are the frozen fish processing and export companies located in the capital, Dhaka. At the next level are agents who buy shrimp from local middlemen (depot owners) and sell them to the companies for a commission. Many of these commission agents are wealthy, city-based businessmen who have easy access to bank loans. At the third layer are depot owners, that is, the storage owners who purchase shrimp from local producers, often through local small traders known as *farias*. Then there are shrimp farmers at the fourth layer who produce shrimp. At the bottom are suppliers of shrimp fry and feed. Fry traders procure them from fry collectors, many of whom are poor women, men and children living near estuaries in the coastal areas.

In addition, both government-owned and private sector nurseries and hatcheries supply post-larval and juvenile shrimp to traders and farmers. Feed traders, apart from selling factory-made fish feed, bring snails from surrounding districts as the local snail population dwindles. They then hire women, men and children from poor households to separate snail meat from the shells and sell it to shrimp farmers as high quality feed (Ito, 2007).

A 2006 USAID study on gender and value chains found that:

- The shrimp value chain is highly sex-segmented, with women and men clustered in different activities;
- Women and girls constitute 40 per cent of all fry catchers and 62 per cent of all processing plant workers, while there are few women higher up the chain;
- Women's absence from several levels of the chain limits their ability to gain economically from the sector;
- Inequality in women's participation is also evident in the lack of security of the jobs in which they work, with a greater proportion in temporary or casual employment;
- In farming, although men are reported to outnumber women, 73 per cent of women's labour time is concentrated in temporary or casual employment, compared with 31 per cent of men's time;
- In processing, where estimates reveal that women outnumber men, 92 per cent of women's labour time is considered temporary or casual.

The shrimp sector is a buyer-driven chain where producers, particularly small producers, have little ability to influence the price at which they sell their product and are frequently locked into contracts that limit the price they receive. At lower ends of the chain, among fry collectors and intermediaries, bargaining is also limited. At higher ends of the chain, among the larger farmers and processors, there is more opportunity for negotiation (USAID, 2006).

The impact of HACCP and 'farm to fork' principles

Issues of technology choice and poverty reduction were brought into focus in 1997, when the EU – the major market – banned all shrimp imports from Bangladesh because the industry failed to comply with the stringent provisions of its HACCP regulations. It is estimated that the industry lost approximately US$15 million in revenue between August and December 1997 and that the adoption of HACCP procedures in terms of inspection and upgrading of plant facilities cost owners US$17.6 million, with plants that could not afford this having to close down (Ito, 2007).

Part of the process of adopting HACCP measures involved making choices between *golda* and *bagda* farming, which have significant differences in production scales and techniques. *Golda* farming is conducted on a much smaller scale than *bagda* farming and involves a far larger number of poor farmers who are engaged in extensive and 'organic' farming without using expensive production inputs. While *bagda* farming probably has more potential for export growth, *golda* farming would have a far greater impact on rural poverty reduction. At the same time that the Government's 2005 Poverty Reduction Strategy Paper (PRSP) talked about an export policy that would increase exports, create job opportunities and alleviate poverty, it was also introducing certification standards in the shrimp industry to ensure quality and traceability at all stages of shrimp hatching, growing, processing, packaging, transporting and shipping of frozen shrimps (Ito, 2007).

To a large extent this involved favouring *bagda* farming, where it is much easier to consolidate the supply chain, but where 'producers' are largely 'wage workers', who are marginalised within the industry. This, together with the much greater negative environmental impact of *bagda* farming, has led many to suggest that a better way to help reduce poverty would be to concentrate on improving food safety standards of *golda* farmers so that they can meet the less stringent conditions of middle-class consumer markets in Bangladesh (Ito, 2007).

The rapid growth of the shrimp farming industry since the mid-1980s has generated optimism for Bangladesh's insertion into the global agrifood

trade. At the same time, fish farming – including shrimp farming – has always been strongly associated with poverty reduction. Indeed, fish farming and the diversification of poor people's livelihoods are seen to be intricately related in the national policy discourse. According to the Government of Bangladesh (2005) 'the inland culture fishery provides poor people, and especially women and children, employment and livelihood opportunities in backward and forward linkage activities – fingerling production, fish catching, processing, marketing, etc.'. The potential conflict between the business goal of enhancing the export competitiveness of the shrimp sector and the development goal of supporting poor people's livelihoods has not received much attention so far.

At the inaugural session of the Aquaculture Certification Council's Training Course, held in August 2005, the Minister of Commerce promised 'full government support' for shrimp certification to comply with consumers' demands abroad. He also emphasised that the effort demonstrated his 'commitment for the poor people of the country' (ACC, 2005). The Department of Fisheries is more cautious, as it is directly involved in rural poverty reduction. Its officers at the district and sub-district level work closely with poor farmers, while senior officers are well aware that compliance with complex international standards would cause problems at farm level. Because of this, the Department is working on domestic safety standards and is developing its own quality assurance programme (QAP) in place of the HACCP. It is also working with the Ministry of Commerce to strengthen the Bangladesh Standard Testing Institute (Ito, 2007).

However, the co-ordination required between different government departments to bring this about is weak and, if left to itself, the industry cannot be expected to switch from one type of market to another with different standard requirements. One reason for this state of affairs is that many policy-makers fail to recognise the differences in production scales and techniques necessary for *golda* and *bagda* farming. Some agencies have tried to assist *golda* farmers – out of concern either for the livelihoods of the poor, especially women, or for the environment (see Box 10.1).

Lessons learned and future directions

This case study clearly points to the way in which a non-tariff trade barrier, HACCP, can cost a poor country a great deal of money in order for it to comply with the complex standards involved. There are also implications for the structure of the industry – in this case favouring the larger-scale and environmentally unfriendly *bagda* farming over the small-scale and environmentally sound *golda* farming.

Box 10.1 Measures taken to help prawn farmers in Bangladesh

The Danish International Development Agency (DANIDA) funded the Greater Noakhali Aquaculture Extension Project (GNAEP) to work exclusively with *golda* farmers with the aim of poverty reduction. It explored ways to cultivate the European niche market for its freshwater prawn products. In its early days, the project tried to collaborate with the Shrimp Seal of Quality Programme (SSOQ) set up by the Agro-based Industry and Technology Development Project (a joint project of USAID and the Bangladesh Government), but it decided to go it alone because SSOQ's emphasis on *bagda* farmers conflicted with GNAEP's focus on poverty reduction. Several NGOs have also been active. Nijera Kori and the Society for Environment and Development are especially involved for environmental reasons. CARE International (Bangladesh) implemented a *golda* project funded by the UK Department for International Development (DFID) in the late 1990s in recognition of its potential for growth. And 13 NGOs, led by the Coastal Development Partnership, co-operated with the SSOQ programme in monitoring the social and environmental codes of conduct involved in shrimp farming (Ito, 2007).

This bias, if not addressed, could cause hardship for many small farmers and suppliers in the *golda* supply chain – and especially women and children. While the Department of Fisheries has recognised this problem because of its close working relationship with small farmers, the measures it proposes will be difficult to implement without a stronger government structure and better links between different departments. And while NGOs are implementing some projects of assistance to poor farmers, these are few and far between.

Several measures have been tried or suggested. These include finding European niche markets for organic prawns, improving domestic food safety standards and supplying *golda* cultured by small farmers to middle-class consumer markets in Bangladesh. Alternatively, consolidating the supply chain for *bagda* to promote export growth could create off-farm employment for small farmers in the long run – through, for example, employment as contract farmers or as workers in processing factories – although wages and working conditions in these factories at the moment leaves something to be desired (see Halim, 2004).

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