Trade barriers: Implications for Indian Fisheries Sector

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Introduction

The fisheries sector of Indian economy provides livelihood to millions of poor households located in the coastal belt of the country. These households generate income through harvest, marketing and export of marine fishes and fish products. From the point of view of employment and income generation, international trade plays significant role. In many ways, fish as a food commodity is treated as a poor sister to agriculture. In many developing countries including India, prosperity of the fisheries sector relies largely on the international trade. It is the trade aspect of the sector that would be the focus of this paper. Even though India’s trade share in this sector is only 2.64 per cent in 2006–07 to the total global trade (with total global trade amounting to about US$ 70 billion1), in rupee terms it constitute a non trivial amount of Rs 83630 million. The country faces both tariff and non-tariff barriers in fish trade and is imposing high tariff in case of imports. India till now has a restrictive stand as far as fish import is concerned, while countries open up their markets for India. Given such varied economic and political dimensions, it is necessary to take a stock of the present situation. This assumes all the more importance in the light of the proposed trade agreement with many countries and trade blocks. This article makes an attempt to analyse the aspects of international trade in Indian fisheries sector in the light of World Trade Organization (WTO).

Production and Growth

When compared to agriculture as a whole, profitable trade in fisheries sector was possible due to both supply and demand side factors. As far as supply side is concerned, India is endowed with a large production base. India has a coastline of 8118 km with an exclusive economic zone (EEZ) stretching over 2.02 million km, and a continental shelf area of 0.5 million km. India has inland water sources covering over 190,000 km and open water bodies with a water-spread area of over 6.6 million hectares. Brackish water area available for aquaculture is 1.2 million hectares, of which, according to the Aquaculture Authority of India (AAI, 2002), some 157,000 hectares (1570 sq. km) was under shrimp aquaculture in 2002. Potential of fish production from marine and inland sources has been estimated at 3.9 million tonnes (2.2) million tonnes in the inshore and the rest in the offshore waters and 4.5 million tonnes, respectively.

As far as domestic demand is concerned, FAO (2002) estimates as per capita availability of fish in India to be 4.8 kg in 1997–98, which, when estimated for the fish eating population in the country (constituting 56 per cent of the total population), works out to about 9 kg. In coastal areas, fish consumption is usually higher – perhaps twice the normal

Shyam S. Salim and R. Narayanakumar (2012), Manual on World Trade Agreements and Indian Fisheries Paradigms: A Policy Outlook
rates. In addition to the domestic demand, as mentioned above, there is a growing demand in the export market. There is a considerable demand for Indian shrimp in the international market. Indian fish is exported to USA, Europe and also to the Asian countries. Here is a well-developed processing industry as well. This provides import demand for fish for re-export. Thus the sector assumes considerable significance in the context of international trade.

The Fish Distribution System in India

There are four distinct channels through which fish is marketed in India. These are: (i) local fresh fish trade; (ii) processed fish trade; (iii) export trade; and (iv) domestic urban trade. Fishmeal trade is another important market chain catering to poultry and aquaculture sectors. It is estimated that, in 1997–98; about 780 thousand tonnes of fish out of a total production of 5.3 million tonnes (roughly 15 per cent) was used for ‘non-human’ uses (FAO, 2002), which could be for fish meal purposes. The ‘traditional’ market chains – involving local and processed fish trades – are informally organised and remain significant because they provide employment to a large number of the poor, mainly women.

Direction and Trade

Import: In the Indian fisheries industry, the situation for imports is quite different from that of exports. From being a country where no imports were allowed, imports quickly increased when the borders were opened, though the level of imports is still very low. An analysis of real imports data for a long period of 1962 to 2005 shows that though in the initial years imports were high, it fell drastically later and remain low till now. From the year 2000, however, an increasing trend is visible. Currently, India’s imports consist primarily of fishmeal. The other product India has been importing is Hilsa from Bangladesh. In 1998, 97 per cent of the imports of fresh and frozen fish came from Bangladesh.

Export: India has been exporting varieties of fisheries items for a long time now. India’s fish exports even in real terms show an impressive growth from the decade of 1960s till about 1980–81. Though a downward trend is visible thereafter, it picks up from 1999–'00 again.

USA had the maximum share in Indian exports (above 20 per cent), followed by Japan, Belgium, China and UK. Reports suggest that, India is largely dependent on specific export markets, which reduce the Indian exporters to the position of price takers, and they are unable to charge higher prices despite rising costs in recent years.

Trade Barriers

Main means of barriers to trade are: Tariffs, Quotas and Non-Tariff barriers. Prior to trade liberalization under the aegis of WTO, tariff and quotas were the main tools used to prevent free flow of goods from one country to other. In fact, tariff was the major source of income for many developing and under developed countries. However, historical process of ‘Globalisation’ which, came into force due to human innovation and technological progress resulted in increasing integration of economies around the world through trade and financial flows. As far as fish trade is concerned, developed countries generally maintain higher tariff rates on processed fish commodities than on chilled fresh fish – a case of ‘tariff escalation’. It is found that market access barriers faced by developing country exporters are not decreasing under the liberalized trade regime for some of their most important export sectors.
Trade barriers: Implications for Indian Fisheries Sector

Tariffs and Tariff Rate Quotas

Tariffs, which are taxes on imports of commodities into a country or region, are among the oldest forms of government intervention in economic activity. They are implemented for two clear economic purposes. First, they provide revenue for the government. Second, they improve economic returns to firms and suppliers of resources to domestic industry that face competition from foreign imports. Tariffs are widely used to protect domestic producers’ incomes from foreign competition. This protection comes at an economic cost to domestic consumers who pay higher prices for import competing goods, and to the economy as a whole through the inefficient allocation of resources to the import competing domestic industry. In the past, and even under GATT, tariffs levied on some commodities by some countries have been very large. When coupled with other barriers to trade they have often constituted formidable barriers to market access from foreign producers. In fact, tariffs that are set high enough can block all trade and act just like import bans. A tariff-rate quota (TRQ) combines the idea of a tariff with that of a quota. The typical TRQ will set a low tariff for imports of a fixed quantity and a higher tariff for any imports that exceed that initial quantity. In a legal sense and at the WTO, countries are allowed to combine the use of two tariffs in the form of a TRQ, even when they have agreed not to use strict import quotas.

Tariff Measures in general

Tariffs on fish and fishery products are generally quite higher in developing countries posing problems to the development of international trade. After the completion of the Uruguay round, the average weighted import tariffs on fish products were reduced to 4.5 per cent in developed countries. Although this may seem quite low, the average hides a number of very high tariffs for selected species and products (tariff peaks), as well as cases of tariff escalation where processed or value added fish products are subject to higher duty than unprocessed fish. Tariffs on primary fish commodities have declined significantly in developed countries and have decreased even in the developing countries of Asia, where they were previously much higher than in developed countries.

The WTO, regional and bilateral trade agreements all play a significant role in removing and easing traditional trade barriers such as tariffs and quantitative restrictions to fish trade. Despite the significant reductions in tariffs by both developing and developed countries, selective tariff use (including tariff peaks and tariff escalation), countervailing duties and technical, food safety and environmental standards continue to limit access of fish in international markets.

Tariff levels on fish and fish products in major importing countries

The large number of tariff lines, with wide range in applied, bound and unbound rates between countries, adding to the existence of preferential and free trade agreements makes it impossible for meaningful generalizations. A comprehensive study of the global fish tariff situation published by the FAO in 2006 concluded that:

- In the WTO context, average bound tariffs in seafood are above 30 per cent but the actual tariff burden faced by importers is more likely around 10 per cent.
- The WTO’s Most Favoured Nation status (MFN) applied tariffs for seafood are higher than tariffs for manufactured goods.
- The extent of tariff binding is somewhat lower for seafood than for other goods.
The binding levels are much higher in developed countries than developing. High-income countries have on average bound 79 per cent of their seafood tariffs while low-income countries on average have bound only 43 per cent.

There is a lot of water in the fish tariffs so that applied tariffs would only be affected if there were considerable reductions in the level of bound tariffs.

**Tariff rates in the Big Three**

Given that tariffs are applied on imports, and approximately 75 per cent of global fish imports are concentrated in three main markets (the EU 39 per cent, Japan 19 per cent and the US 16 per cent – it is useful to look at the tariff situation that prevails in these markets since it is tariff schedules there that have the most profound effects on trade.

**EU tariff rates**

After the Uruguay Round, the weighted average tariffs on fish products in developed countries was 4.5 per cent suggesting that tariffs on fish and fish products in developed countries are relatively low. However, the EU - by far the world’s largest single market for fish - has a simple average MFN tariff line for fish of 11.8 per cent. or more than twice the developed country average. But the EU has much higher MFN tariffs on many individual products, with rates of 20 per cent on some forms of shrimp, cooked lobster and certain mussel products. The simple tariff line average therefore can mask what are known as tariff peaks (much higher tariffs on certain products) and tariff escalation (increasing tariff levels as a product changes through processing). According to one analysis, the EU has tariff peaks (defined as bound MFN rates over 15 per cent) in 128 tariff lines.

The practice of tariff escalation is best illustrated by how the EU treats tuna. When it comes to raw material intended for EU based processors in Spain, France and Italy, tuna enters the EU market at a zero tariff; the tariff increases to 15 per cent for fresh tuna fillets, 18 per cent for frozen fillets, 22 per cent for tuna intended for direct consumption, and 24 per cent for tuna loins and canned tuna.

**US tariff rates**

The situation in the US is even more striking. While most fresh and frozen seafood can enter the US duty free or for a few cents per kilogram, the US practises steep tariff escalation by increasing tariffs sharply for processed fish products. For example, processed (smoked, dried, salted or in brine) salmon, herring, mackerel and anchovies all have 25 per cent duties. Tariffs are even higher for canned sardines (30 per cent) and canned tuna (35 to 45 per cent) (US, 2006). Moreover, the US has not hesitated to apply draconian tariff sanctions against importers that threaten certain domestic producers. In recent years, the US has levied the following anti-dumping duties on fish and seafood products to protect the local interest:

- Warm water shrimp: duties of 2.35 to 112 per cent on imports from Brazil, Ecuador, India, Thailand, China and Viet Nam
- Catfish: duties from 36 per cent to 63 per cent on imports from Viet Nam, which, because of another US ITC ruling, is forced to market its products in the US under the name of “basa” and “tra”.
- Salmon: duties ranging from 2.3 to 31 per cent on imports from Norway.
- Crawfish: duties of 223 per cent on imports from China.
Japanese tariff rates

The fish and seafood tariff schedule for Japan is even more mixed. While the average MFN applied rate is 5.9 per cent with a GSP rate for LDC’s of 3.9 per cent, a look at the individual tariff lines shows that many items (frozen lobster, shrimp and prawns) have duties of only 1 per cent - significantly below the average. At 2 to 3.5 per cent the tariff rate for many categories of fresh fish fillets follow this pattern as well. However, some forms of mussels, octopus and herrings have tariffs of 10 per cent. Some Pacific salmon, hard clams and oysters are at 10.5 per cent, and some crab products are levied at a 15 per cent rate. There is also evidence of tariff escalation in the Japanese treatment of tuna. All fresh, refrigerated and frozen tuna entering the Japanese market is assessed a 3.5 per cent MFN rate. The rate jumps to 9.6 per cent, however, for canned tuna.

Tariff levels, however, do not provide a complete picture of the extent of Japanese protection for its fishing industry as it also imposes import quotas on products from certain other countries. One can only make sense of all of this by remembering that tariff protection, like trade negotiations, is all about interests. The rule of thumb is that countries protect those domestic interests they think would be vulnerable to foreign competition if the tariff protection was not there. For example, US tariffs for canned tuna are there to protect the jobs of 5000 workers in American Samoa where two of the largest fish plants in the world produce 500 million US$ worth of tuna a year for the US market. While Samoan hourly wage levels are low by US standards (3.50 US$ per hour in 2002), they cannot compete with the low-wage canning industries of South-East Asia (Wolman 2002). Tariffs therefore serve to protect special interests and vulnerable sectors of a country’s economy. There are also clear interests behind those seeking to remove tariffs completely.

Implication of Tariff barriers for India:

EU is India’s largest trading partner. According to the Indian Export-Import Policy 2002-2007, all marine products with a few exceptions under the Wildlife Protection Act 1972, can be exported free subject to pre-shipment quality inspection. 90 per cent of Indian seafood exports comprise frozen fish, shrimp and cephalopod. The average tariff rate in Japan, the biggest Indian seafood market, is 4.1 per cent. US, the second biggest market for Indian seafood, has just a nominal 1 per cent tariff duty. EU, the third biggest importer, has an average tariff duty of 10.2 per cent, followed by China, the fourth biggest, which has a bound tariff rate of 18 per cent. The EU, Japan and the US extend preferential tariff treatment under Generalized System of Preferences (GSP) to Indian products including seafood. In general, tariff measures are not seen as a trade barrier by the Indian seafood industry to the US and Japanese markets. However, it is seen as a barrier to access some of the markets in developing countries, including China, as well as the EU market. India is still in List 1 of Annex 1 of the EC Decision 97/276/EC, amended by 99/136/EC, whereby all organizations exporting seafood to the EU require export-worthy certification of their processing facilities by an EU-nominated inspection agency. In the case of India, that agency is the Indian Export Inspection Council (EIC).

Tariff structures in developed countries

The profiles of tariff structures vary widely among developed countries as does the complexity of their tariff systems. Since developed countries are major markets for developing country fisheries exports, their tariff profiles have a significant impact on
economic opportunities for developing country producers and exporters. In most developed
countries, the Uruguay Round left in place tariffs which vary significantly depending on the
type of product. Looking across OECD nations as a whole, about 68 per cent of OECD fish
imports are subject to tariffs ranging from zero to five per cent. Only three per cent of
imports are subject to tariff peaks greater than 15 per cent. Tariff peaks are usually defined
as those at 15 per cent and above, or more generally to describe the existence of relatively
high tariffs, usually on ‘sensitive’ products, amidst generally low tariff levels.

Since the end of the Uruguay Round, the key fish importers have maintained higher
tariff rates for most value-added processed fishery products from developing countries. For
developing countries, such ‘tariff escalation’ (i.e. where tariffs are higher on processed and
semi-processed products than on unprocessed ones) is particularly worrisome as it can
limit exports of processed and value-added commodities to developed countries. Overall,
the EU and Korea apply the highest duties and have the highest occurrence of tariff peaks,
with 41 per cent and 69 per cent respectively of their tariffs set at rates higher than 15 per
cent. In total, the EU applies tariffs peaks to around 5 per cent of developing country
exports. EU also provides duty-free access for raw seafood products from many developing
countries through preferential trading arrangements. Tuna – a commercially-valuable
export for many developing countries – provides a good example of the application of
differential import tariffs.

Table 24.1 Reductions in Average Tariffs for Fisheries Imports in Select Asian

<table>
<thead>
<tr>
<th>Countries</th>
<th>Share of c.i.f value (per cent)</th>
<th>Tariff before WTO</th>
<th>Tariff after WTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td></td>
<td>1991</td>
<td>2001</td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td>1995</td>
<td>1999</td>
</tr>
<tr>
<td>Philippines</td>
<td></td>
<td>1994</td>
<td>2000</td>
</tr>
<tr>
<td>India</td>
<td></td>
<td>1993-94</td>
<td>2002-03</td>
</tr>
<tr>
<td>Bangladesh</td>
<td></td>
<td>1991-92</td>
<td>200-2001</td>
</tr>
</tbody>
</table>

Tariff structures in developing countries

Developing country tariffs on fish and fishery products are higher than developed
country tariffs (largely due to ad valorem duties which are calculated based on the value of
the product). Average tariffs for developing countries are 19.4 per cent for raw foods, 22 per
cent for intermediate products, and 23.8 per cent for processed food. Tariff structures vary
significantly, however, between developing countries. Malaysia and India, for instance,
apply their highest level of duties to intermediate products. Thailand has the highest
consistent tariff rates at 60 per cent, followed by India, while Chile and Malaysia apply the
lowest duty rates. Countries such as India, Thailand, Chile and Kenya have identical tariffs
for all kinds of raw products. Other countries differentiate between raw products and have
more heterogeneous tariff systems overall. Malaysia, for example, applies tariffs from 0–18
per cent, Mexico from 8–30 per cent and India from 15-45 per cent.

Developed countries often have zero or relatively low levels of tariffs on fish, but
there are cases of escalation with some peaks. EU rates are higher than in many developed
countries i.e. on average are around 10 per cent, but zero rates apply for ACP (African
Caribbean and Pacific) and LDC states. As such the issue of concern to developing country
exporters depends on their current exemption status and hence potential change in
competitiveness arising from further liberalization (e.g. the extension of tariff exemptions to non-ACP and LDC states which may radically alter competition in the supply of EU markets.

Table 24.2: Tariff Escalation for Some Developed-Country Fisheries Imports

<table>
<thead>
<tr>
<th>Product</th>
<th>Share of border c.i.f. value (per cent)</th>
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<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>EU GSP</td>
<td>EU MFN</td>
</tr>
<tr>
<td>Skipjack</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh</td>
<td>22</td>
<td>0</td>
<td>3.5</td>
</tr>
<tr>
<td>Canned</td>
<td>24</td>
<td>0</td>
<td>9.6</td>
</tr>
<tr>
<td>Mackerel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh</td>
<td>20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Processed</td>
<td>25</td>
<td>0</td>
<td>9.6</td>
</tr>
<tr>
<td>Scallops</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh</td>
<td>8</td>
<td>2.8</td>
<td>10</td>
</tr>
<tr>
<td>Processed</td>
<td>20</td>
<td>7</td>
<td>9.6</td>
</tr>
<tr>
<td>Crabs/Lobsters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh</td>
<td>10</td>
<td>8.2</td>
<td>7</td>
</tr>
<tr>
<td>Processed</td>
<td>20</td>
<td>7</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Implication of Tariff barriers for India

EU is India’s largest trading partner. According to the Indian Export-Import Policy 2002-2007, all marine products with a few exceptions under the Wildlife Protection Act 1972, can be exported free subject to pre-shipment quality inspection. As already mentioned, 90 per cent of Indian seafood exports comprise frozen fish, shrimp and cephalopod. The average tariff rate in Japan, the biggest Indian seafood market, is 4.1 per cent. US, the second biggest market for Indian seafood, has just a nominal 1 per cent tariff duty. EU, the third biggest importer, has an average tariff duty of 10.2 per cent, followed by China, the fourth biggest, which has a bound tariff rate of 18 per cent. The EU, Japan and the US extend preferential tariff treatment under Generalized System of Preferences (GSP) to Indian products including seafood. In general, tariff measures are not seen as a trade barrier by the Indian seafood industry to the US and Japanese markets. However, it is seen as a barrier to access some of the markets in developing countries, including China, as well as the EU market. India is still in List 1 of Annex 1 of the EC Decision 97/276/EC, amended by 99/136/EC, whereby all organizations exporting seafood to the EU require export-worthy certification of their processing facilities by an EU-nominated inspection agency. In the case of India, that agency is the Indian Export Inspection Council (EIC).

Import Barriers

Currently, India imposes strong barriers on the import of fisheries items. While the official sources feel that import should increase at least for re-export purposes, fishermen’s associations are opposing such moves.

In order to import fish, one requires a special import permit (SIP). This permit is given at an office in Delhi. In order to receive each consignment in the port, one needs to acquire fresh permits from Delhi. This creates immense amount of hassles for the importer. It also raises the possibility of corruption on the part of the officials in charge of providing
such permits. It has been alleged that sometimes the permits takes considerable time and that adds to the cost of storage of fish at the port.

**Barrier on Ornamental Fish Imports**

As far as live ornamental fish import is concerned, only limited verities of fishes are allowed. Rules also appear to be more stringent than most countries across the globe. However, as there is increasing demand for ornamental fish from the growing corporate sector, they are often brought through the illegal routes.

**The transition from tariffs to non-tariff barriers**

*Non-tariff barriers to trade (NTBs)* are trade barriers that restrict imports but are not in the usual form of a tariff. Although they are called "non-tariff" barriers, they have the effect of tariffs once they are enacted. Their use has risen sharply after the WTO rules led to a very significant reduction in tariff use. With sources of income other than tariffs, industrialized countries have moved from tariffs to NTBs is the fact that developed countries have. However, most developing countries still rely on tariffs as a way to finance their spending. Developed countries can afford not to depend on tariffs, at the same time developing NTBs as a possible way of international trade regulation. The second reason for the transition to NTBs is that these tariffs can be used to support weak industries or compensation of industries, which have been affected negatively by the reduction of tariffs. The third reason for the popularity of NTBs is the ability of interest groups to influence the process in the absence of opportunities to obtain government support for the tariffs.

**Types of Non-tariff barriers**

Non-tariff barriers to trade include import quotas, special licenses, unreasonable standards for the quality of goods, bureaucratic delays at customs, export restrictions, limiting the activities of state trading, export subsidies, countervailing duties, technical barriers to trade, sanitary and phyto-sanitary measures, rules of origin, etc. Sometimes in this list they include macroeconomic measures affecting trade.

According to traditional classification of non-tariff barriers, they are divided into three principal categories: The first category includes methods to directly import restrictions for protection of certain sectors of national industries: licensing and allocation of import quotas, antidumping and countervailing duties, import deposits, so-called voluntary export restraints, countervailing duties, the system of minimum import prices, etc. Under second category follow methods that are not directly aimed at restricting foreign trade and more related to the administrative bureaucracy, whose actions, however, restrict trade, for example: customs procedures, technical standards and norms, sanitary and veterinary standards, requirements for labeling and packaging, bottling, etc. The third category consists of methods that are not directly aimed at restricting the import or promoting the export, but the effects of which often lead to this result. The non-tariff barriers can include wide variety of restrictions to trade. Here are some example of the "popular" NTBs.

**Non-Tariff Barriers to trade can arise from:**

Government participation in trade & restrictive practices tolerated by governments which includes export subsidies ,government monopoly in export/import state subsidies, procurement, trading, state ownership, preference given to domestic
bidders/suppliers, requirement for counter trade, domestic assistance programmes for companies, discriminatory or flawed government procurement policies, import bans, determination of eligibility of an exporting country by the importing country, determination of eligibility of an exporting establishment (firm, company) by the importing country, occupational safety and health regulation, multiplicity and Controls of Foreign exchange market, “buy national” policy, lack of coordination between government institutions etc.

The Customs and administrative entry procedures includes government imposing antidumping duties, arbitrary customs classification, issues related to the rules of origin, import licensing, decreed customs surcharges, additional taxes and other charges, international taxes and charges levied on imports and other tariff measures, lengthy and costly customs clearance procedures, issues related to transit fees, inadequate or unreasonable customs procedures and charges, lack of control in Customs infrastructure, lack of capacity of Customs officers and issues related to Pre-Shipment Inspections.

Technical barriers to trade (TBT) include restrictive technical regulations and standards not based on international standards, inadequate or unreasonable testing and certification arrangements, standards disparities, intergovernmental acceptance of testing methods and standards, issues related to packaging, labelling and marking, conformity assessment related to TBT, inadequate infrastructure etc.

Sanitary & phyto-sanitary (SPS) measures include issues related to sanitary and phyto-sanitary measures and conformity assessment related to SPS. The Specific limitations include quantitative restrictions, exchange controls, export taxes, quotas, import licencing requirements, proportion restrictions of foreign to domestic goods (local content requirement), minimum import price limits, embargoes, non-automatic licensing, prohibitions, quantitative safeguard measures, export restraint arrangements, restrictive licenses and other quality control measures.

Charges on import include prior import deposits and subsidies, administrative fees, special supplementary duties, import credit discriminations, variable levies and border taxes. Other procedural problems include arbitrariness, discrimination, corruption, costly procedures, lengthy procedures, lack of information on procedures (or changes thereof), complex variety of documentation required, consular and Immigration Issues and inadequate trade related infrastructure.

Transport, Clearing and Forwarding issues include government Policy and regulations, administrative (Border Operating Hours, delays at border posts, etc.), immigration requirements (Visa, travel permit), transport related corruption, infrastructure (Air, Port, Rail, Road, Border Posts), vehicle standards, costly Road user charges/fees and issues related to transit.

**Issues related to transit**

Contrary to tariff measures (duties) which are normally transparent, NTBs are often more difficult to detect because they can be “hidden” in rules and practices that have a perfectly legitimate objective. They also leave more discretion to administrators in applying them. Furthermore, NTBs can have more trade-restrictive effects than tariffs, which raise the cost of a given product, and go as far as excluding a good from a market altogether. It is an experienced fact that, the economic effect of NTBs is very substantial, it appears that in some cases NTBs were introduced in order to counter-balance the loss of protection in the
wake of lower tariffs. Further, governments find it easier to conceive of non-tariff measures against imports in times of economic difficulties or in the case of a struggling sub-sector in an economy than taking less popular measures of a domestic nature.

Recent research by ITC based on market access map shows that, non-tariff barriers are growing in the case of LDCs. A staggering 40 per cent LDC exports are subject to non-tariff barriers. For developing and transition economies and developed countries the figure is only 15 per cent. Even with preferential agreements that grant LDCs duty-free access to markets, non-tariff barriers may prevent these countries from entering those markets. Non-tariff measures, such as safeguards, anti-dumping measures, standards, technical regulations and rules of origin, can play an even more significant role as possible barriers to market access than tariffs.

**Market Access – Non-Tariff Measures –**

Non tariff measures include the SPS regulations and the growth in quality control regimes promoted particularly by the developed importing countries. The Uruguay Round Agreement on the Application of Sanitary and Phytosanitary (SPS) agreement and the agreement on Technical Barriers to Trade (TBT) adopted by WTO Members in 1995 have given a new direction to the international sea-food trade and services. These agreements are intended to ensure that requirements such as quality, labeling and methods of analysis applied to internationally traded goods are not misleading to the consumer or discriminate in favour of domestic producers or goods of different origin. A key aspect has been the development of HACCP, which can impose significant costs from the viewpoint of the developing country supplier. SPS measures are unlikely to be relaxed and hence issues arise primarily in the form of mitigation and enhancement options. TBTs arise especially in the context of specification and labeling. Whilst the latter may assist in promoting (more) sustainable fishing practice they also again impose costs on producers. Areas such as eco-labeling are voluntary and there is scope for negotiation for those developing country suppliers wishing to participate. The SPS Agreement was set up to avoid sanitary standards being used as an unjustified barrier to trade by importing countries. There are several key principles including the sovereign right of a country to put protective measures in place, but these measures should not be more restrictive than necessary to achieve the appropriate level of protection.

The EU has been at the forefront in developing food safety standards and has had a profound influence on the development of the seafood export industry in developing economies. EU standards are enforced and regulated at the country level and thus a restriction of exports to the EU under the regulations affects all members of the export community. EU legislation for all food products has recently been brought under one directive and the scope has been extended to all aspects of the supply chain from “farm to fork”. This legislation supersedes the individual commodity based directives. All the steps in the chain from primary producers (fishermen and aquaculture units) need to take on board, in a more structured manner, 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-industrialized sectors of the industry. Of even greater concern is the fact that in order for the ‘farm forkl’ principle to be seen to be working a system of traceability of products throughout the chain will need to be instituted. Imports into the USA are regulated under the Federal Regulations. These regulations apply to domestically produced products and imports. They require that processors of fish and fishery products
operate preventive control systems that incorporate the seven principles of HACCP. While new regulations with regard to quality control, such as HACCP, have been adopted by all major importing countries and made compulsory for their fish processing industries, one notable exception is Japan. While some firms in Japan have neither HACCP nor external suppliers. Standards for imports of fish and fishery products into Japan are governed by the legislation set out in the Food Sanitation Law and the Quarantine.

**Implications of Non-tariff barriers for India:**

According to the Seafood Exporters Association of India (SEAI), since February 2002, there were several cases of rejection of Indian shrimp imports in the EU market on account of detecting traces of prohibited carcinogenic antibiotics like nitrofuran and chloramphenicol as well as other bacterial inhibitors like amino-glycosides and macrolides. Following the EU requirements, on 17 August 2001 India issued a notification specifying the limits for various antibiotics, pesticide and heavy metal residues in seafood products, ITN (2002). International Organization of Standardization (ISO) 9000 is recognized under the Export-Import Policy of Government of India. Firms, including seafood firms, enjoy certain privileges if they are ISO 9000 firms. Under the 1997-2002 Export-Import Policy, Government of India, exporters with ISO 9000 were given Special Import License (SIL) up to 5 per cent of f.o.b. value. Certification against ISO 9000 is beginning to emerge as a major industry in India. There are many auditors with experience in assessment of quality management against ISO 9000, and the certifiers in India with the highest credibility in the international market are those under multinational companies.

**Food Safety Standards**

While tariffs are more a problem in relation to accessing seafood markets in EU and developing countries, non-tariff measures have emerged as a significant bottleneck in accessing markets of rich countries. Processors who export to EU and US markets in particular need to either cost-effectively comply with import regulations or face costly rejections. These standards vary from one market to another. In the US, for example, histamine in canned sardines, mackerel and anchovies should not exceed 50 parts per million (ppm). However, in the EU, up to 150 ppm of histamine in canned fish is permitted.

The regulatory approaches used in the US, EU and other markets have changed quite significantly since the creation of free trade blocks and the WTO. The EU requires fish imported from a foreign processor to be accompanied by a certificate from an authorized national agency (In India’s case it is the Export Inspection Agency under the Ministry of Commerce and Industry, Government of India), and it reserves the right to inspect the regulatory process and to decertify a national agency until remedial action is taken. In the case of US, the individual exporter has to demonstrate an understanding and ability to produce seafood according to US regulations.

Advances in the technology of seafood analyses have been made to the point that pesticide and pharmaceutical residues can often be detected at the parts per billion (ppb), and in some cases, at the parts per trillion (ppt) levels. When zero tolerances are established based on the ability of a test to detect parts per million, the increase in sensitivity to ppb or ppt can turn a “safe” product to an unsafe one. According to the Seafood Exporters Association of India (SEAI), since February 2002, there were several cases of rejection of Indian shrimp imports in the EU market on account of detecting traces of prohibited carcinogenic antibiotics like nitrofuran and chloramphenicol as well as other bacterial inhibitors like amino-glycosides and macrolides.
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Food Safety Standards and Small-scale Fisheries

From a small-scale fisheries perspective, in addition to the cost aspects, one of the main problems in adopting a HACCP plan would be the difficulty in implementing such a plan at the level of fish catch, especially for beach landing fishing units like kattumaram and canoes. According to EU and US standards, fish is to be stored in ice or in frozen storage as soon as it is harvested. Storage of fish in iceboxes would be difficult on board traditional fishing craft like kattumaram, which is made of lashed logs. Yet, many kattumaram using long lining and bottom set gillnets are in the process of catching fish for the export market. Strict implementation of HACCP plans could result in small producers using such fishing craft being excluded from the export market. On reaching the fishing harbour or landing centre, traditional fishers are expected to handle fish for export market without exposing them to the beach-sand under fish handling standards of import markets. Many of the fishing villages that harvest fish, shrimp and cephalopods for the export market, have only the beach for landing their catch and it would be difficult for them to comply with a HACCP plan unless they invest in iceboxes and maintain them in a hygienic manner. Instead of a one-size-fits-all approach, there is need to develop different standards for different situations so that benefits of global trade can be shared by all. Moreover, a significant bottleneck in maintaining better hygiene standards in fish landing centres all over India is the shortage of potable water.

Equivalence of Sanitary and Phytosanitary Standards

Under Article 4 of Agreement on Sanitary and Phytosanitary Measures, members are in the process of bilateral determination of the equivalence of sanitary and phytosanitary regulations and regulatory processes between importing and exporting nations. While the international standards of US, EU and Japan are more an extension of their domestic standards, such standards in India are exclusively applied to its export market. India, for example, does not have any quality standard for seafood for its own domestic consumers. Given the situation, establishing equivalent standards are only to the extent of helping the domestic seafood export industry to meet the quality standard of the import markets. Therefore, how far the equivalent standards can be meaningful is moot as long as there are no domestic standards for seafood safety. It is important that such standards are developed for the domestic market so that the distinction between fish handled with gum boots and rubber gloves and bare feet and naked hands can come to an end.

Sanitary and Phyto-sanitary Measures (SPS Measures)

In 1998-99, i.e., in the wake of the EU sanctions on Indian seafood, the seafood sector is reported to have lost 21.48 per cent in export quantity and 14.58 per cent in dollar value. The sector responded to this and the successive SPS measures by investing (with some support from the Government) in upgrading the processing infrastructure. With the enforcement of Hazard Analysis Critical Control Point (HACCP), India has specified limits for various antibiotics, pesticide and heavy metal residues in seafood products. International
Organization of Standardization (ISO) 9000 is recognized under the Exim Policy of the GOI and certification against ISO 9000 has emerged as a major industry in India. Adapting the HACCP standards comes with a rather big price tag. Following the norms substantially increases the cost of production, because most of the capital goods need to be imported from the developed countries. Although it appears that some of the earlier estimates for upgrading to HACCP were exaggerated, the minimum cost of an EU certified plant is still high at about Rs. 80 million. The net worth of companies who are certified to export to the EU ranges between Rs. 800 million and Rs. 3,000 million. According to the Seafood Exporters’ Association of India (SEAI), the Indian processing sector spent US $25 million in order to upgrade their facilities to the required standards. The overall compliance cost for meeting the EU norms, as estimated by the exporters (and confirmed by MPEDA), is between 15 and 40 per cent of the FOB value. The high cost of upgrading is the reason why, of a total of more than 400 processing establishments in India, only 169 were approved for exporting to the EU by 2005. On the other hand, the larger processors may have found few difficulties in upgrading to HACCP standards, which is to be expected as the larger processors are likely to be the net beneficiaries of the SPS measures in so far as the measures allow them control over a larger market share. The government's package of assistance also helped some of companies to improve the quality standards and it has been reported that the quality of seafood processing in the country is much better than that prevailing in many developed countries.

There is a widespread perception that the standards which the exporting units are asked to follow are those that even European plants do not follow, leading to charges of double standards. The Export Inspection Council of India (EIC) acknowledges that the EU process requirements impose more-than-necessary conditions often not listed in formal documents. Another frequent complaint about the standards is that, with upgraded infrastructure, there is no proportionate increase in the unit value realisation of seafood. In fact, the average realization cost that had stood at Rs.149.16 per kg during 1999-2000 came down to Rs.144.08 per kg in 2005, showing 3.53 per cent decline (MPEDA, 2000 and 2006), despite the huge increase in investment and cost of production. The impact of the measures on ancillary units like the shrimp peeling sheds has been even more damaging, forcing them to close down as a direct result of the provisions or because of the excessive cost of upgrading. The shift of shrimp processing from peeling sheds to processing plants for maintaining a highly sanitized factory environment also made the peeling units and their infrastructure unviable through reduced level of operations, making the investment dead. Apart from the economic losses accompanying the closure of shrimp peeling sheds, the loss of livelihoods for a number of women peelers has been a bigger concern, particularly as many of these women are the main bread-earners in their families. Lack of alternatives continues to make their conditions more difficult. With the growing stringency of quality tests in the importing countries, there is also a constant fear that every consignment will be at risk because there are simply too many parameters to follow and also because the expertise and equipment necessary to implement some of the measures is simply not available (or affordable) in the country. Non-harmonious importing conditions among the importing countries are another cause of concern, which was particularly glaring in the case of countries within the EU (Kulkarni, 2005:18). Such fears and uncertainties often translate into measures that aim at maximising returns in the short term at the expense of long term sustainability of the sector.

**Technical Barriers to Trade (TBT Agreement)**

Mathew (Undated) and Srivastava and Ahuja (2002) examine the extent to which shrimp exports from India were affected during 1996-97, i.e., the year following the imposition of the US ban on Indian shrimp for not complying with its turtle conservation
provisions, by comparing them with the previous year (1995-96) and conclude that the US ban did not affect shrimp exports from India in general, and even to the US market in particular. In fact, in 1996, the year in which the US imposed the ban, exports of shrimps from India showed a modest increase in quantity terms. Two reasons are suggested to explain the absence of any significant effect of the US embargo. Firstly, since the US imposed a ban only on captured shrimps and not on cultured shrimp, there may have been some kind of switch from captured shrimps to cultured shrimps destined for the US market. There is a strongly pronounced trend in the Indian shrimp exports which has come to be increasingly dominated by cultured shrimp. In 2001, for instance, the cultured shrimp accounted for more than 60 per cent of the overall exports. The second reason could be the redirection of exports away from the US and towards Japan since the ban was imposed only by the US and not by other major importing destinations. Again, this is a familiar trend: whenever Indian seafood sector received a shock from one of the major importers, its first response has been to take the product elsewhere (Salagrama, 2002). Srivastava and Ahuja suggest that the ban had a limited impact because the US accounted for only 15 per cent of all shrimp exports from the country. Although even this share was not adversely affected due to the ban, TBT measures could certainly have serious consequences if imposed by all major importing countries. At the same time, the eastern coastal state of Orissa bore the brunt of several turtle conservation measures and provides an interesting case study in which issues of trade, environmental concerns and livelihood needs got entwined in a tangled web of contending interests. Here, the efforts to conserve turtles took two routes. On the one hand, the MPEDA started commercial production of Turtle Excluder Devices (TEDs) for distribution to the fishers free of cost. But the fishing boat operators were reluctant to use the TEDs, which would increase fuel consumption and hence, the cost of operations. A 1994 study done by the Ministry of Commerce, Government of India for United Nations Conference on Trade and Development (cited by Mathew, undated) estimated a loss of U.S. $23 million if TEDs were to be made mandatory in Indian shrimp trawlers. Moreover, the fishers complained, that the TEDs not only prevented capture of turtles, but also kept off bigger fishes and led to other catch losses, which could be up to 30 per cent of the catches. As a consequence, the use of TEDs remained rather low in commercial fishing operations. The impact of the ban has been felt by the fishers in the dozens of villages abutting the banned areas and has led to serious livelihood problems. It was also reported that between 40,000 to 50,000 fishworkers and fishing vessel operators were affected in Orissa as a result of sea turtle conservation programmes. The closure of fishing areas is believed to deprive the fishing sector of 2,000 tonnes of shrimp, about 50 per cent of the total marine shrimp production of Orissa, and the potential loss to the fishing sector as a result of sea turtle conservation programmes was put at Rs. 1,000 million (about U.S.$22 million at 2001 prices).

Subsidies

While some of the direct subsidies into the sector – for instance, those going to the export and processing sectors, have remained largely intact, the study also identifies some important areas where there have been changes to the existing subsidy regimes (both explicit and implicit), which have implications for the sector at large. Some of these include:

Fishers sharing part or whole of the cost of public investments: These include the fishers sharing the cost of infrastructure such as landing jetties, drying platforms or access roads, as well as paying a more realistic user fees for utilising common facilities like fishing harbours. The increasing prevalence of ‘Build-Operate-Transfer’ arrangements for setting up public infrastructure like ports and roads also ensures that the users pay for the assets over a longer time period.
Reduction or removal of tax preferences: This is reflected in the current taxation policy of the country which converts duty entitlement passbook (DEPB) income on export turnover above Rs. 10 crore ($ 2.2 million) into taxable income. This has landed the seafood exporters in considerable amount of trouble (Economic Times, 18 February 2006) and led to arguments that this kind of internal taxation will put additional burden on the ailing sector. It is estimated that with the implementation of the new tax policy, around Rs 500 crores will be removed from the seafood sector annually.

**Anti-Dumping Measures (ADM)**

Based on a complaint by the US-based Ad Hoc Shrimp Trade Action Committee in December 2003 that the US shrimp industry was being materially injured by shrimp being sold below fair value, the US Department of Commerce imposed anti-dumping duties on frozen or canned warm-water shrimp from Brazil, China, Ecuador, India, Thailand, and Vietnam in 2005. In addition to the 10 per cent antidumping duty and regular tariffs on shrimp, exporters to the US also have to give the US government a deposit or “bond” of 10 per cent of the value of the year’s export which the US government would hold for three years. Since ADM is targeted at individual companies, there is no single levy structure: Hindustan Lever, for instance, was levied 27.49 per cent duty, which was much higher than the weighted average of 14.20 per cent paid by most other exporting companies. The ADMs were also country-specific, with certain countries (for e.g., Vietnam, China) being made to pay a higher duty, while others (for e.g., Thailand) paid less. While there was much heartache about the US shrimp anti-dumping tax, the fact remains that India itself has been aggressively using ADMs on a variety of imports (although not directly related to seafood). In fact, in terms of using ADMs, India is considered to be in league with the ‘traditional’ users of these measures like the EU and the US. More than half of these measures are targeted at developing countries.

In 2004-5, the USA slid to the 2nd position among the importers of seafood from India and, according to the MPEDA (MPEDA, 2006), the decline was mainly due to the antidumping duty imposed by the US government on import of frozen shrimp from India. Export of frozen shrimp to USA declined by 15.02 per cent in quantity, 9.81 per cent in rupee value and 7.93 per cent in US$ terms during the year. This was followed by the EU emerging as the largest market for Indian marine products, increasing its share to 25.52 per cent from 23.37 per cent in quantity; to 27.37 per cent from 24.15 per cent in rupee value and to 27.42 per cent from 24.04 per cent in US$ realisation. Overall, it has registered an export growth of 22.29

**Eco-labelling and Certification**

Eco-labelling has yet to become an established trade measures, but generates considerable interest for its potential impacts upon trade, environment and livelihoods. On the other hand, the price premium for sustainably managed Indian seafood remains untested, since India does not yet have a single seafood eco-label.

**Eco-labeling**

A number of fisheries related eco-labels already exist (e.g. Marine Stewardship Council (MSC), Responsible Fisheries Society of the United States, Global Aquaculture Alliance) for labeling species that are judged to be sustainably fished. The objective of such ecolabeling programmes is to create market based incentives for better management of fisheries by creating consumer demand for seafood products from well managed Stocks or from sustainable aquaculture. The DDA also addressed labelling requirements for...
environmental purposes (i.e. eco-labels), in order to clarify the impact of eco-labelling on trade and examine whether WTO rules stand in the way of eco-labeling policies. While certification and labelling schemes may in some cases offer the opportunity of higher prices and access to niche markets, there are concerns (but little evidence) over the possible negative impacts on developing country producers. Although eco-labelled products are not yet prominent in any market, concerns are based around a number of issues, such as: Legitimacy and credibility; a mismatch between certification requirements and the reality of tropical small-scale fisheries and potential distortions to existing practices and livelihoods.

**Implications of Eco-labelling for India:** There are several concerns about eco-labelling in developing countries and specifically India. Firstly, there is fear of losing access to market if eco-labeled fish and fish products gain greater preference in import markets. Secondly, there is worry about the affordability of costs associated with adjusting fisheries to comply with eco-labelling standards, and about costs of certification and chain of custody and whether or not the market, if they go for certification, can adequately compensate their higher costs. Thirdly, there is apprehension that fishers in the small-scale artisanal sector would lose their autonomy if they have to comply with standards that are developed and applied by external agencies to their fish exports without taking into account the specific aspects of their fisheries. Fourthly, there are doubts about the practicability of eco-labelling in multi-species, multi-gear fisheries since the unit of certification is the fishery in its entirety. Apart from the above, several concerns about the implications of voluntary eco-labelling for the artisanal and small-scale fisheries in developing countries have been expressed, particularly in the context of the eco-labelling programme in fisheries, viz., the MSC, which was established in 1997, ICSF (1998). In the history of MSC from 1997 to 2002, for example, there are no fisheries from developing countries that have been certified, although there are potential candidates for MSC certification from developing countries including a couple of village-specific crab, mackerel and sardine fisheries from Tuticorin in Tamilnadu.

**Licenses**

The most common instruments of direct regulation of imports (and sometimes export) are licenses and quotas. Almost all industrialized countries apply these non-tariff methods. The license system requires that a state (through specially authorized office) issues permits for foreign trade transactions of import and export commodities included in the lists of licensed merchandises. Product licensing can take many forms and procedures. The main types of licenses are general license that permits unrestricted importation or exportation of goods included in the lists for a certain period of time; and one-time license for a certain product importer (exporter) to import (or export). One-time license indicates a quantity of goods, its cost, its country of origin (or destination), and in some cases also customs point through which import (or export) of goods should be carried out. The use of licensing systems as an instrument for foreign trade regulation is based on a number of international level standards agreements. In particular, these agreements include some provisions of the General Agreement on Tariffs and Trade and the Agreement on Import Licensing Procedures, concluded under the GATT (GATT).

**Quotas**

Licensing of foreign trade is closely related to quantitative restrictions – quotas - on imports and exports of certain goods. A quota is a limitation in value or in physical terms, imposed on import and export of certain goods for a certain period of time. This category includes global quotas in respect to specific countries, seasonal quotas, and so-called
"voluntary" export restraints. Quantitative controls on foreign trade transactions carried out through one-time license.

Quantitative restriction on imports and exports is a direct administrative form of government regulation of foreign trade. Licenses and quotas limit the independence of enterprises with a regard to entering foreign markets, narrowing the range of countries, which may be entered into transaction for certain commodities, regulate the number and range of goods permitted for import and export. However, the system of licensing and quota imports and exports, establishing firm control over foreign trade in certain goods, in many cases turns out to be more flexible and effective than economic instruments of foreign trade regulation. This can be explained by the fact, that licensing and quota systems are an important instrument of trade regulation of the vast majority of the world.

The consequence of this trade barrier is normally reflected in the consumers’ loss because of higher prices and limited selection of goods as well as in the companies that employ the imported materials in the production process, increasing their costs. An import quota can be unilateral, levied by the country without negotiations with exporting country, and bilateral or multilateral, when it is imposed after negotiations and agreement with exporting country. An export quota is a restricted amount of goods that can leave the country. There are different reasons for imposing of export quota by the country, which can be the guarantee of the supply of the products that are in shortage in the domestic market, manipulation of the prices on the international level, and the control of goods strategically important for the country. In some cases, the importing countries request exporting countries to impose voluntary export restraints.

1. Harmonisation of testing procedures

The European Union has its own standards as a whole in addition to each member state having its own standard. Indian side feels that it is essential to harmonize these standards within EU so that the countries, which are exporting to EU could comply with one set of norms. Due to the prevalence of separate set of norms, there is increased number of rejections of marine products export to this part of the world. There are instances of rejection of sea-food consignments exported from India to EU, specifically to Italy and France, for the presence of Vibrio Parahaemolyticus, a commonly found micro organism in coastal and estuarine waters. Indian authorities and exporters are of the opinion that the practice of judging sea food based only on total Vibrio Parahaemolyticus counts, without accounting for the virulence factors TDH/TRH is not appropriate.

2. Rejection on account of bacterial inhibitors/ unspecified antibiotics

There are instances of rejection of the Indian farm-raised and sea-caught marine products for the presence of bacterial inhibitors/ antibiotic residues without specifying the residue involved in such rejections. Health authorities involved in testing activities in India feel that harmful residues are not possible to be present in the sea caught products.

3. Rapid Alert System

The procedure for lifting rapid alerts by the member countries is not harmonized. In order to lift rapid alert, the number of minimum consecutive checks varies from member state to member state. For example, France checks 3 consecutive consignments for lifting rapid alert, while Spain insists on 10 and Belgium on 5 and so on. There is a need to harmonize this system.
Basically, the purpose of the RASFF is to provide the European Union control authorities with an effective tool for exchange of timely information on measures taken to ensure food safety. Basically, Member States shall immediately notify the Commission, under the rapid alert system, of:

(a) any measure they adopt which is aimed at restricting the placing on the market or forcing the withdrawal from the market or the recall of food or feed in order to protect human health and requiring rapid action;
(b) any recommendation or agreement with professional operators which is aimed, on a voluntary or obligatory basis, at preventing, limiting or imposing specific conditions on the placing on the market or the eventual use of food or feed on account of a serious risk to human health requiring rapid action;
(c) any rejection, related to a direct or indirect risk to human health, of a batch, container or cargo of food or feed by a competent authority at a border post within the European Union.

These latter notifications are called Information Notifications. Information notifications concern a food or feed for which a risk has been identified, but for which the other members of the network do not have to take immediate action, because the product has not reached their market. These notifications mostly concern food and feed consignments that have been tested and rejected at the external borders of the European Union. Products subject to an information notification have not reached the market or all necessary measures have already been taken.

The RASFF also issues Alert Notifications. These are sent when the food or feed presenting the risk is already on the market and when immediate action is required. Alerts are triggered by the Member State that detects the problem and that has initiated the relevant measures, such as withdrawal/recall. As of 26 May 2003 the European Union began posting a weekly internet report with information on all notifications from the Rapid Alert System.

1. Destruction of Consignments

Destruction of consignments which have been found to contain chloraphenicol and nitrofuran residues has been a major issue which India has taken up in various bilateral forums. As a result of these discussions many countries are now agreeing to return rejected consignments to India. But consignments are still destroyed in UK and India is not in favour of this practice.

Recent restrictions to trade

1. After the events of September 11, 2001, the US Government has taken a number of steps to enhance the security of the food supply. Accordingly, US Congress has passed the Public Health Security and Bioterrorism and Response Act of 2002. This Act has created an indirect barrier for seafood exports from India as inspections have increased.
2. Indian export consignments have also been rejected under country of origin labelling norms.
3. While catching shrimps it needs to be ensured that sea turtles are not killed. In 1996 USA banned imports from India accusing that Indian fishermen are not using turtle excluder devices.
4. Similarly, Tuna exports need to have dolphin safe catching procedure labelling.
Non-Tariff Barriers from other countries

1. Saudi Arabia has been imposing a ban on India since 1984, as WHO reported India as a country affected by cholera at that time.
2. Chinese authorities do not have details of their norms.
3. Revised quarantine measures to be imposed by Australia on prawn imports would also create barriers to Indian exporters.

Policy Implications for Indian fisheries sector

To conclude the above discussion, the following policy measures were suggested for the betterment of the sector:

1. Any changes in tariff or other rules of market access will have direct consequences for them. The Government must therefore give special consideration to this fact and any deliberation on NAMA must entail special discussions on the impact on employment and livelihood in such sectors. The key issue concerning NAMA is that while developing countries protect their markets through higher tariffs, the main mode of protection for the developed countries is through non-tariff measures, particularly through the use of technical barriers. Such barriers in the developed countries are not being discussed simultaneously or with the same priority. Therefore a further reduction in tariffs as is being negotiated in NAMA will not lead to any greater market access for the developing countries including India but will certainly ensure greater market access for the developed countries.

2. The major fishing companies in developed countries use massive factory ships to process their catch. Small-scale fishers in India point out that their problems arise from the open access regime for foreign trawlers, not from subsidies. From their perspective, blanket rules that prohibit subsidies would restrict the right of governments to support small fishers and protect the food security of coastal communities.

3. In EU and Japanese markets, the average tariffs are comparatively higher than in USA. A one per cent tax reduction on exports can fetch a sizeable amount, which could provide extra financial resources to meet the expenditure involved to comply with international trade standard, and to access international markets in an era of increasing consolidation of the food retail by MNCs. Further, a verifiable environment management system can be adopted in marine fisheries to demonstrate effective fisheries management measures to the import markets.

4. Increasing fish exports should not result in increased prices on local markets, and traditional fish producers, processors and persons involved in processing should be protected. Further, a comprehensive central policy in regulating the number of boats and trawlers going in to sea in each state should be regulated to conserve our marine resources from over exploitation.

5. Subsidies to the industry to adopt and implement new fisheries management plan such a plan should be defended as non-actionable subsidies based on the lines being followed by EC and other developed countries.