Introduction

The exports of marine products during April-March 2011-12 have achieved the US 3.5$ billion mark by registering a growth of 6.2 per cent in quantity, 26.85 per cent in rupee value and 22.81 per cent in US$ realisation compared to the same period last year. This is the first time in the history of marine products that we are achieving the 3.5 billion mark. The average unit value realisation has also gone up by 15.87 per cent. Indian seafood exports are less than the global average, with about 12 per cent of its total fish production (wet weight equivalent) entering world trade. About 6.7 million people depend on fisheries for a livelihood. There are also about 300,000 people employed directly in the shrimp aquaculture sector and about 700,000 people in ancillary units. It is significant to note that more than 3 per cent of India's exports are marine products.

Table I Marine exports during 2011-12 and 2012-13

<table>
<thead>
<tr>
<th>Export details</th>
<th>April–March 2011-12</th>
<th>April–March 2012-13</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity (tonnes)</td>
<td>862021</td>
<td>813091</td>
<td>6.02</td>
</tr>
<tr>
<td>Value (Rs.crore)</td>
<td>16597.23</td>
<td>12901.47</td>
<td>28.65</td>
</tr>
<tr>
<td>US$ (Million)</td>
<td>3508.45</td>
<td>2856.92</td>
<td>22.81</td>
</tr>
</tbody>
</table>

The provisions under the various World trade agreements have impacted the different dimensions on the fisheries sector. The agreement has created opportunities as well as invited threats. It is significant to note that the sector has performed impressively in terms of exports growth and increased diversification in commodity and countries exported. However, there are many challenges faced by Indian fisheries trade in relation to the NAMA, Technical and Non-Technical Barriers to Trade, Subsidies, Anti-dumping, Sanitary and Phyto-Sanitary measures, domestic trade and Free Trade Agreements. The major implications are discussed below.

(a) Tariff barriers

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 3rd biggest market for Indian seafood, has just a nominal 1 per cent tariff duty. EU, the 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 the 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 I of Annex I 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 (IEC).

(b) Non-tariff barriers

There were several cases of rejection of Indian Seafood imports in the EU market on account of detecting traces of prohibited carcinogenic antibiotics like nitrofurans 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. 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.

(c) Subsidies for India:

Within the framework of the SCM Agreement, only export subsidies are to be treated as prohibited ones. Even if we treat the entire annual budget of Marine Products Export Development Authority (MPEDA) as a prohibited subsidy, which may not be the case if we do a careful analysis of all their schemes, it amounts to less than half per cent of the annual seafood export value. Even though fisheries subsidies are small, from an overcapacity and over-fishing point of view, their role is to be better recognized in India. Fuel subsidies in terms of tax revenue foregone are extended in several Indian States to the fishing industry and it has become an important consideration for trawler operators to decide whether or not to undertake a particular fishing trip. Also, the criteria for subsidy schemes are often based on political, not legitimate, social considerations. In India, there are instances of misuse of subsidy schemes by fishermen themselves. The vessel owner would sell his fuel quota illegally in the open market, and he would buy fuel for his fishing operation from the open market. The net benefit in such a transaction is in favour of the owner since the fuel quota is in his name, whereas the operational costs of fishing are collectively shared between the owner and crew. The owner thus privatizes his benefits by exclusively enjoying the proceeds of the sale of his fuel quota in the open market, and socializes his costs since running costs of a fishing operation, including costs of fuel, are shared among the owner/s and workers and treated as common expense. In this case, the owner of the fishing vessel is only partially bearing the burden of costs of fishing operation.

Under the SCM Agreement perhaps the most important aspect to consider in relation to fisheries subsidies in the Indian context, arguably in developing countries in general is the revenue foregone rather than government financial transfer. Irrespective of the nature of the fisheries, whether or not targeting high-value-low-volume, or low-value-high volume fisheries, there are no fee either to enter the fishery or to access fisheries resources, both for the rich and poor fishers.

In the light of recent changes in legal regimes for foreign investment in India, it is possible for excess fishing capacity in other countries to end up in the Indian EEZ. Vessel buyback schemes with the intent of reducing domestic fishing...
capacity (e.g. South Korea and Taiwan) could result in such fishing capacity ending up in Indian waters if subsidies are provided to vessel owners of distant water fishing nations to transfer their excess fishing capacity to Indian companies. They could effectively end up competing for the same fisheries resources with the domestic sector, mainly comprising fishing vessels below 20 m length. This can deny a level playing field to Indian fishing vessels and it could also give rise to fishing conflicts in the EEZ. There should also be protective measures within national legislation to prevent subsidized distant water fishing vessels from gaining unfair access to the national resources.

(d) Eco-labelling
There are several concerns about Eco-labelling in developing countries and specifically, India. Firstly, there is fear of losing access to market if eco-labelled 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 Ecolabelling 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 ecolabelling 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 Tamil Nadu.

Emerging Trade Issues

1. Issue of Detection of Ethoxyquin, an antioxidant found in the consignments to Japan and the impact of the same on Indian Industry.

Ethoxyquin: India's shrimp exporters are concerned by a new move by Japanese food safety regulators to lower the acceptable levels of a key antioxidant used in fish meal. During August-September this year, Japan's food safety commission announced new regulations that would impose compulsory testing for ethoxyquin in shrimp consignments from India on the basis of the default standard of 0.01 ppm. The detection of Ethoxyquin, an antioxidant, in the shrimps exported to Japan has badly hit India's export. Japan had already rejected more than 52 consignments of shrimps exported from India in the initial weeks, while over 150 consignments were lying in various ports in Japan waiting for test result. There have been a lot of cancellations of export orders from Japan and this has badly affected exporters based in Odisha and West Bengal. The problem has also caused a drastic reduction in the prices of farmed shrimp in the Indian market. Ethoxyquin is a quinolone based antioxidant and an important ingredient in shrimp feed with almost all shrimp units in India using it. Japan permits a minimum residue level of 1 ppm for fish. The Indian seafood exporters feel that the standard is baseless and damaging to the country's seafood export market. This has affected almost 100,000 households involved in aquaculture. Odisha and West Bengal regions are the most affected areas as around 80 per cent of the black tiger variety of shrimp produced in these
regions is exported to Japan. The aquaculture sector in Odisha and West Bengal is in crisis as the prices have dropped heavily. Already importers have been asked not to ship the cargo until the issue is sorted out. Due to this India suffered a serious setback in marine product exports during the April-August period of the current financial year, as the country's products lost their sheen in major export markets like Europe and Japan.

2. **Food Safety Modernization Act**

(FSMA) of the United States amended the existing Federal Food Drug and Cosmetics Act (which in turn had amended the Bio-Terrorism Act of 2002). Several provisions of the law can be traced to original Bio-Terrorism Act. The FSMA will increase frequency of inspections, tighten recordkeeping, extended oversight and mandate product recalls if voluntary recalls are not issued. Facilities will be required to conduct an analysis of the most likely hazards and design and implement risk-based controls to prevent them. The FSMA also mandates increased scrutiny of food imports. Food import shipments will have to be accompanied by documentation that they can meet safety standards that are at least equivalent to U.S. standards. Foreign governments might provide such certifications or other so-called third parties accredited in advance. FSMA also contains provisions for certifying or accrediting laboratories, including private laboratories, to conduct sampling and testing of food, among other provisions. While inspection related provisions of the law came into operation last year, the key aspects relating to re-registration of foreign food suppliers becomes operational during October 1 – December 31, 2012. In this regard, the following, as might be applicable to foreign food suppliers (including Indian companies) needs to be mentioned:

FSMA requires domestic and foreign facilities to register every two years during the period of October 1, ending December 31, in even numbered years; previously renewal was not required and facilities only needed to update the FDA of changes. The re-registration will first occur during October-December 2012. Each and every food company will have to register afresh with USFDA between October 1 and December 31, 2012. Currently, all foreign food facilities exporting into U.S. are registered under Bio-Terrorism Act. Now each one of them will have to re-register between October 1, 2012 – December 31, 2012. We understand that currently there are over 275000 foreign food facilities registered with the FDA, out of which the Indian companies number around 6785. From our interaction with various business firms, we understand that several hundred companies may already be working on their re-registration.

One of the requirements of registration under the old Bio-Terrorism Act, the amended Food Drug and Cosmetics Act and the new FSMA remains appointment of a “US Agent for communications with FDA”. The key responsibility of this agent has always been to act as a channel of communication between the foreign food supplier and the U.S. FDA. It is understood that in most cases, the Indian companies tend to appoint the US importer also as US agent for communication with U.S. FDA.

3. **The Foreign Supplier Verification Program (FSVP):**

The program is designed to ensure that importers have in place internal controls to verify that the food they bring into the United States is unadulterated and produced in accordance with the hazard analysis and preventive control requirements. While the administrative burden is placed on the importer, the purpose is to verify activities on the part of the food supplier. Furthermore, the implementing rule, though still unreleased, has been identified as being particularly expensive. The expectation is that the law’s stringent requirements may result in significant new expenses for importers, which in turn have the potential to impact foreign exporters. While this program is quasi-self-implementing, it is that it “takes
effect this January, without a finalized rule in place importers are unlikely to have to undertake many new actions. Without formal direction from the FDA it is conceivable that an importer's FSVP may consist of inquiring with his foreign suppliers as to whether they are complying with FSVP. Though unclear, this may happen on self-certification basis. Still, although this provision may not have an immediate impact on importers or exporters, the ultimate consequences of a finalized rule may be significant. Those interested in submitting comments will have an opportunity to do so after the proposed rule clears OIRA and is published, almost certainly after the election and quite possibly not until next year.

4. Trade issues with importing countries

Indian seafood exporters often face certain obstacles in their attempts to capture markets. Common problems include the lack of awareness on customs procedures, frequent rate changes in customs and other levies, procedural complications with regards to customs, absence of a special nodal agency in the importing country ambiguity regarding international standard, discriminatory testing norms compared to competitors, unfamiliarity with various rules and regulations and frequent changes in polices of importing countries without any advance information. Recent changes in specification and regulations of some of our important markets such as the EU and the US have highlighted the need to address trade impediments in a systematic manner. Although Indian seafood has a strong footing in the EU market the continuing economic slowdown has started affecting our seafood exports.

Our exporters to China are facing serious difficulties in meeting the requirements of parameters prescribed by China for export. On going through their requirements, we find that a few parameters which have been prescribed for aquaculture material is provided for testing of captured products.

POLICY IMPERATIVES:

(a) Livelihoods

The livelihoods of numerous poor people are threatened by the ongoing negotiations in NAMA, most importantly of those involved in fishing. Any drastic 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. Unfortunately the Indian government has virtually accepted the contents of the earlier discredited as the basis, for NAMA negotiations. The majority of WTO members in Cancun had rejected that historically, all late industrializes including the USA developed their industry behind high protection. 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. Any further steep reductions in tariffs on industrial products will accentuate the process of de-industrialization of fishing sector, which has already commenced with tough import competition being faced by many sectors in small and medium industries. Indian Government's mandate at such future negotiations must be comprehensively debated and decided by an explicit consensus to be evolved in the Parliament.
(b) Fishing rights and access to foreign vessels

The major fishing companies in developed countries use massive factory ships to process their catch. Thus small countries, whose waters are the source of the fish gain do not benefit through jobs and development of local industry. The companies have been pressing their government to cure commitments on 'services related to fisheries' in the GATS negotiations that will entrench their control over processing of the resource and of its global marketing and prohibit the source countries from reasserting control over the benefits from the resource. 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.

(c) Rewarding fisheries management regimes

In lieu of meeting the costs of fisheries management, seafood exporters should demand a reduction in tariffs on Indian seafood imports in EU and Japanese markets, where the average tariffs are 10.2 per cent and 4.1 per cent respectively. EU and Japan are already in the process of rewarding better fisheries management regimes in their seafood import markets. A one percent tax on exports can fetch US$12 million per year at current levels of export revenue earnings, which could provide sufficient financial resources to introduce fisheries management measures. A verifiable environment management system, under the ISO 14000, can be adopted in marine fisheries and shrimp aquaculture to demonstrate effective fisheries and aquaculture management measures to the import markets. As long as fishmeal continues to be the main feed, and brood stock comes from the wild and post larvae are collected from the coastal waters, shrimp aquaculture should be treated as a subset of marine fisheries.

(d) Compliance cost

Some of the HACCP measures are difficult for small-scale beach-based fishers to meet and hence they will not be in a position to access the international market. Similarly, unless the State invests on behalf of the industry in expensive quality control measures, high compliance costs with seafood safety standards could push out small processors and exporters from business. How best the benefits of tariff reductions compare with the costs of non-tariff measures should be looked into in the context of small producers and exporters of seafood. Being a highly sensitive item from the health and environment point of view, compliance costs of the seafood industry are bound to be quite high in relation to other durable exports from developing countries. US lost the case at WTO when India and other affected countries challenged the ban. However, the ban since 1996 adversely affects the Indian shrimp exports.

(e) Multilateral environmental agreement (MEAs)

Although there have been significant impacts on the fishing industry as a result of turtle protection measures, there does not seem to be any significant impact on the exports of India as a result of Multilateral environmental agreement. It is quite likely that, in future, MEAs might play a major role in the seafood exports of India if MEA obligations are to be met to maintain market access. In fact, fish trade is fast emerging as an area with potential conflicts between MEA obligations and trade rules.
(f) Multiplicity of administration regimes

In developing countries, the fisheries administration is fragmented, with responsibility divided among such an array of actors (in India, around 11 ministries across the central and state governments) that any sectoral coherence in policy is very difficult to secure. Similarly, there is usually no clear policy to address the problem of over-capacity. For instance, the State of Goa has 1,128 registered trawlers and this is far above the saturation point compared to the fact that the Food and Agricultural Organization of the United Nations following a study recommends 30 trawlers per 10 kilometres of coastline. Given that Goa has 105 kilometres of coastline, the number of trawlers should have been around 315, but it has instead 1,128 of them. A comprehensive central policy in this regards need to be immediately evolved.

(g) Special and Differential Treatments on Subsidies

India should start in earnest putting in place a fisheries management plan. Subsidies to the industry to adopt and implement such a plan should be defended as non-actionable subsidies. The EC position on non-actionable subsidies is also of relevance to developing countries like India since several of the proposed subsidies in this category can also be defended within the framework of special and differential treatment of developing countries.

(h) Sanitary and Phytosanitary Measures

Under Article 4 of Agreement on Sanitary and Phytosanitary Measures, members are in the process of bilateral determination of the equivalence of SPS 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 and needs to establish the equivalent.

Recommended Reading

SUCCESS STORIES IN ASIAN AQUACULTURE

The stories presented in ‘Success Stories in Asian Aquaculture’ reflect the unique nature of Asian aquaculture, providing first-time insight into how and why it has become so successful. Overall, the book demonstrates how the resiliency, adaptability, and innovation of small-scale aquaculture farmers have been crucial to this success. It also places aquaculture development in Asia into a wider global context, and describes its relationship to natural systems, social conditions, and economics. The book is unique in its in-depth presentation of primary research on Asian aquaculture, and in demonstrating how aquaculture can have a lasting positive impact on livelihoods, food security, and sustainable development.

This book will appeal to a wide range of readers. The introduction and conclusion give an excellent general overview of Asian aquaculture, and the individual case studies provide a wealth of new information for specialist readers. Researchers, development workers, and decision-makers, in particular, will be interested in how the Asian experience might be used to strengthen aquaculture development more generally and in other parts of the developing tropics of Latin America and Africa.