
Problems and Prospects of the Fish Processing

7.01 Introduction

The objective of this chapter is to examine the problems and prospects of the fish processing industry of Gujarat. This chapter is divided into two sections. Section one discusses the problems of fish processing units and their magnitude, while Section Two deals with prospects of the fish processing.

Section – I

PROBLEMS OF GUJARAT FISH PROCESSING

“It is reported that Indian fishery particularly the processed fisheries products are much cheaper than those of the competing countries. But processing companies face problems related to complicated exporting procedures, high shipping costs, cut-throat competition in the industry, quality standards of the importing countries, irregular power and raw material supply, hygiene problems and not availability of quick transportation facilities from the fishing port to the processing units etc. Our success in exports in the coming years largely depends on how best and how soon we can overcome these problems” (NCAP, 2004).

The principal objective of this section is to investigate the problems faced by fish processing today, and identify challenges. It was found that 13 problems confronted the fish processing units, which hampered their growth at firm level and also of the industry as a whole. In order of their intensity, these problems are shown in the table below. Mode analysis was used to identify the intensity of the problems.

Table 7.01
Problems of Gujarat Fish Processing

Problem	Rank
Inadequate Supply of Raw material (Fish)	1
High Operational Cost	2
Tough Competition	3
Rupee Appreciation	4
Low Price Realization	5
Poor Government Support	6
Inadequate Value Added Products	7
Strict Quality Standards	8
Inadequate Infrastructure Facilities (Transportation, Communication, Electricity, Training Institutes etc.)	9
Strict Legal procedures	10
Inadequate Finance & Welfare Measures	11
No Information about Foreign Market	12
Trade Barrier (Tariff & Non Tariff)	13

Inadequate raw material supply, high operational cost, tough competition, rupee appreciation and low price realisation are the five most significant problems as reported by the respondents in the fish processing industry.

7.02 Raw-Material

It was found that raw-material availability was low as compared to its demand, leading to increase in its price. To get enough raw-material, the fish processing units have started buying raw-material from nearby fish landing centres, as well as by purchasing own fishing boats. However, 53.4% of the units did not get enough raw-material owing to tough competition. There were three sources of raw-material, viz. marine, inland and aquaculture. Most fish processing units (95%) were getting raw-material from the marine source only. Therefore, there is scope for using inland and aquaculture sources.

7.03 High Operational Cost

Additionally, many units have closed due to increasing cost. A total of 15 factories closed in 2008 due to high cost. They fear that if the same trend continues, the processing activity will become unprofitable and will discourage the new entrepreneurs to enter into business” (Rama Mohan Rao, K. and Vijaya Prakash, D. 2000).

The operational cost has been rising due to increasing raw-material cost, which contributes 83% share to the total cost. Raw-material cost has been increasing due to constant hike in fuel price. Data shows that more than 70% of the fish processing units did not get raw material at a reasonable price. As Thomas K.P. reported that the steep increase in raw material prices, over the past five years as compared with past thirty-five years was up by 1,00,000% in the case of some items. Though raw material prices have been rising, export prices have not gone up in the same proportion. Profitability has come down. Many exporters sustained losses in 1994-95, mainly due to high raw material prices (Thomas, K., 2003). Prices have sharply increased during 1990-1995, mainly due to sudden increase of processing plants in the area, particularly in Veraval, and due to other factors like increased capacity in existing plants, and movement of raw materials to processing plants in other states.

7.04 Competition

Competition has increased due to crowding of fish processing units. These units have increased at an annual rate of 15% since 1987-88. Data shows that competition has affected the market share, up to 70%, in more than 85% of the units. Competition has been increasing and will continue to increase due to free entry and government incentives for the fish processing sectors. The units reported sustaining themselves against competition by maintaining and improving the quality of their products. However, most units reported that it was difficult to cope with competition, until and unless the raw-material situation improves.

Because firms produce a product that is identical to that of their competitors, each firm in the market must charge a price no higher than that of its

competitors; otherwise it will not be able to sell its product. Moreover, each firm, given its small size relative to the industry, cannot influence the market price by changing its supply. The market price is determined by consumer demand and the total supply of all firms in the industry. Once an equilibrium price has been established, each firm takes this price as given. The only variable that a firm can control in order to maximize profits or minimize losses is its output. The output depends on availability of raw-material in the fish processing business. As mentioned earlier, fish processing units face competition especially in getting raw-material. Competition increases but what is reason behind it? How it increases? Total processing capacity installed by is 2476 per day. If it is multiplied with average working days of fish processing of Gujarat yearly, it shows total required raw-material of fish processing of Gujarat yearly would be 2476 tons per day and 606620 tons yearly. However, it has been reported that the yearly availability of raw-material for fish processing units was 3, 00,870 tons as against the actual requirement. This is resulting in to a race for buying raw material for processing. Where this lead to the industry will is difficult to answer.

7.05 Rupee Appreciation/ Exchange Rate

Exchange rate is a significant issue for the fish processing industry. Policy prescriptions have generally assumed that exchange rate depreciation would stimulate exports and curtail imports, while exchange rate appreciation would be detrimental to exports and encourage imports. "Fish exporters expressed that the frequent fluctuations in the exchange rates are causing lot of problems to them and they are quite unsure of the returns due to the fluctuations" (Rama Mohan Rao, K. and Vijaya Prakash, D., 2000). Recently, the rupee has been appreciating against the dollar, inversely affecting fish processing. Fish exporters are unable to compete with their Asian competitors like China, Vietnam, and neighbouring seafood exporting nations like Bangladesh and Sri Lanka. Indian exporters are finding their products over priced in the major markets of U.S., Japan and the E.U. Profit margin is getting narrowed down due to rupee appreciation. Of the total units, 88% reported they do not get adequate returns,

due to rupee appreciation. This has made it difficult to survive in the fish processing industry.

Seafood Exporters Association of India (SEAI) has highlighted various issues dogging the fisheries sector through a memorandum to UPA chairperson Sonia Gandhi. In the memorandum, SEAI said the fisheries sector is facing the biggest-ever crisis in its history mainly because of the rupee appreciation. Rise in rupee value, fuel prices hit seafood exporters, said Venketeswaran K. It listed out the cascading effects of the rupee strengthening by 15 per cent and the surge in fuel prices by 80 per cent, which exacerbated the problems of the industry. Added to this is the anti-dumping duty imposed on Indian shrimps exported to the United States by the US government. The oversupply of some rare shrimp species such as 'vannammae' by countries such as Thailand, Indonesia and Vietnam and other South East Asian countries were also posing a threat to the Indian seafood exporters, the memorandum pointed out. The immediate competitors were selling their products at prices that are almost 30 per cent lower than those of black shrimp cultured here. The SEAI pointed out that the crisis would deprive two million fishermen of their livelihood and 50,000 workers in the processing establishment of seafood exporters of their jobs. Seafood exports have already dipped by 20 per cent in rupee terms and could plunge further by 50 per cent to \$1 billion in the coming years, they warned (Venketeswaran, K., 2008).

7.06 Low Price Realisation

Profit and income depends on price. Now-a-day, fish processing sector has become a competitive market. Raw-material cost has been rock climbing, where as price has not been increasing correspondingly. One of the units reported losing Rs. 9000 on each export container. Another unit reported that the cost was Rs. 45 per kg to produce a particular fish product, but low market price forced them to sell at Rs. 43 per kg. Another firm reported having incurred a loss of Rs. 40 lakhs due to low market price in the year 2006-07. The variation in the value of rupee along with other reasons already discussed result into such a situation.

While many players have either stopped or pruned their operations, other exporters are desperately looking for alternative markets. From a high of almost \$18 per kg (for 16/20 count) in June last year, the price of head-on black tiger shrimp, the dominant product in India's seafood export basket, in Japan began to fall steadily, touching \$12.3 in June this year. Says Dr K. Hari Babu, President of the Association of Indian Fishery Industries (AIFI), said “it touched a little over \$10 earlier this week. This is the lowest price that we have got in the last seven or eight years. If it comes down further, we might have to think in terms of closing down our operations.” (Mitra, A., 2001).

7.07 Government Policies

No industry can thrive without government support, which was found to be satisfactory in the Gujarat fish processing sector. All fish processing units have received financial or technical help from the government in terms of subsidy, training and DEPB assistance. Government subsidy to fish processing units amounted to Rs. 60 lakhs, and MPEDA has introduced 20 export promotion schemes to encourage fish export. The government also helps in emergencies, like rupee appreciation.

There are many government welfare schemes, but more than 60% of the fish processing units do not have much information about them. The units reported that subsidy sanctioning procedures are tough. Fish processing units apply for subsidy to MoFPI but there are long delays in the procedures. For this reason, SEAI reported that several units are stuck with financial crisis because of this adverse position (SEAI, 2007).

7.08 Value Added Products (VAPs)

The share of Indian sea foods in the world market has shown an increasing trend over the years since its inception in the 1950s. During 2000-2005, this increase was 21%. Today, India's share in the global market is 2.45%. During the last decade our seafood trade has doubled, both in value and quantity.

In 2004-05, India exported 4.6 lakh tonnes of marine products valued at US \$ 1,478. In the last decade, export in terms of quantity showed a plateau and growth was marginal. Shrimp and prawns command the trade with an export earning of 63% of the total trade. Lately, finfish has emerged as the second largest commodity with 11% of total earnings. The rest of the earnings came from more than 50 minor commodities.

A large number of seafood-processing factories have implemented Hazard Analysis and Critical Control Point (HACCP) in their process-line according to the standards of the European Union. Consequently the European Union (EU) has emerged as the top market for Indian seafood. The USA has dropped to second position followed by Japan and China. However, taking shrimp as the major commodity, USA is still the top importer from India with a share of 32% in 2004-05. Cephalopods, squid and cuttlefish are other important commodities earning a good market price. Processed ribbonfish and surimi are other important export items, but their market is very selective. India has to develop export strategies for marketing freshwater fish and value-added fishery products to realize better export earnings in the coming years (Government of India, 2006).

Value added products (VAP) are a great source of increasing income for the fish processing units. Japan produces half the quantity of India, but its foreign exchange earnings are much higher than that of India due to VAP. Similarly, Thailand earns more foreign exchange than India although its fish production is less compared to India, because it makes value added products from 85% of its fish catch. India's fish production was 3.8 million tonnes whereas Thailand's fish production was 2.9 million tonnes in 2002 as per 'The State of World Fisheries and Aquaculture – 2004. However, India's export was only US 1.2 billion, whereas exports from Thailand amounted to US \$ 3.92 billion.

96.3% of the fish processing units in Gujarat reported that VAP increases the income of the firm. Despite this, more than 50% of the units do not undertake production of VAP as there are technical limitations and high risk coupled with non-availability of skilled labour and lack of finance.

7.09 Packaging

An attractive packaging helps processing units to get a higher price and raises sales as well. As already shown, there is positive relationship between packing material cost and price received and can increase profit by 8%. Hence, more than 60% of the fish processing units reported that they wished to improve the packing designs of their products. However, the cost of packaging machineries (technologies) was very high.

7.10 Quality Standards

The adoption of quality standards helps the fish processing units to get a higher price and higher market share. As shown earlier, profit can be increased by 15% with adoption of quality standards. However, 67.2% of the fish processing units have still not adopted E.U. quality standards in Gujarat owing to a huge investment. It is also risky, besides making processing complex.

7.11 Corruptions

Fish processing units reported having to pay bribes to the officers, else their work would not get done. The units reported having to pay bribes of Rs 1500 to 2000 to custom officers on each export container, and Rs 5000 to the labour officer on each visit. Some fish processing units reported that “it is good for them, because once the bribe was paid, they had nothing to worry about”.

The export containers have to be loaded in the presence of the customs supervisor. When bribes are given no one checks what is being loaded in the containers. The fish processing units wanted corruption to be stopped. In fact, the customs officers were even referred to as ‘robbers’. Fish processing units reported that they could give higher wages and extra benefits to labour only when their financial condition improves.

The World Bank considers corruption to be one of the greatest obstacles to economic and social development. The Bank states that corruption undermines the rule of law and weakens the institutional foundations upon which economic growth depends (Bill, R., 2006).

The Santhanam Committee on Prevention of Corruption in India (1964), and Myrdal (1968) also found that corrupt officials cause wasteful bureaucratic delays increasing the transaction cost of doing business. Some of the studies have concluded that corruption leads to inefficiency. Andvig (1991) and Barro (1991) investigated the relationship between economic growth and investment. They found that corruption negates economic growth. Using econometrics analysis, Mauro (1995) found significant negative relationship between economic growth and corruption. Emmanuel Anoruo and Habtu Braha also analysed corruption and economic growth and found that corruption retards economic growth directly by lowering productivity, and indirectly by restricting investment (Anoruo and Braha, 2008). From a policy perspective, efforts should be made to discourage corruption.

7.12 Hired firm

Hired firms are not able to produce fine quality of fish due to poor water, ice and drainage facilities. As a result, hired firms get lower price of their fish in the international markets. Proprietors of hired firm always try to reduce cost of electricity, ice, water etc. This affects the quality of the products.

Section - II

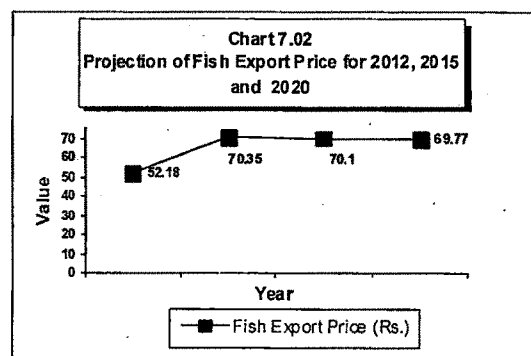
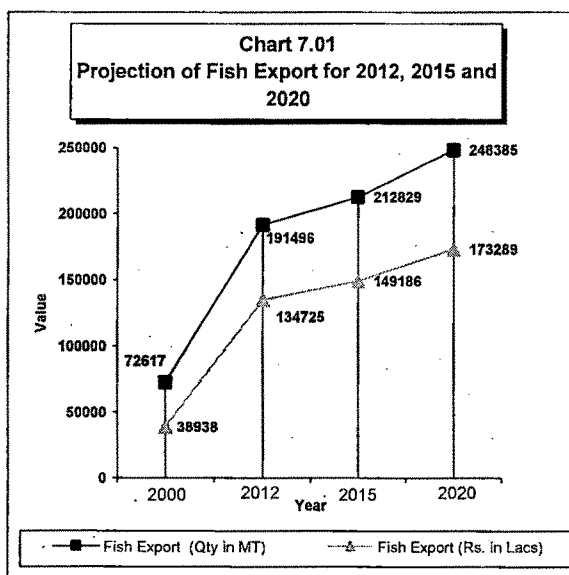
PROSPECTS OF GUJARAT FISH PROCESSING

An attempt has been made here to understand the prospects of the fish processing industry on the basis of certain projections. These are based on the projection of fish export from Gujarat.

Regression analysis technique has been used along with the views of the respondents for the years 2012, 2015 and 2020. The data from fish export, from 1991 to 2007, has been used for the purpose. The results are as under.

Table 7.02
Projection of Fish Export

Year	Fish Export (Qty in tons)	Fish Export (Rs. in Lakhs)	Fish Export Price (Rs.)
2012	191496	134725	70.35
2015	212829	149186	70.10
2020	248385	173289	69.77



7.13 Volume of Fish Export

The volume of fish and fishery products exported from Gujarat is projected to expand to almost 1.17 lakh tons, from 0.74 lakh tons in 2000 to 1.91 lakhs tons by 2012. This represents an annual growth rate of 21 percent, compared to 4.5 percent during the previous one decade. The volume of fish export is likely to increase from 0.74 lakh ton in 2000, to 2.12 lakh tons by 2015, and to 2.48 lakh tons by 2020. Gujarat's marine fish production will not increase, since it has reached the maximum sustainable yield (MSY) level. Therefore, the additional volume of fish export would probably come from aquaculture, as well as curtailment of domestic consumption adding into the export basket.

MPEDA plans show that Gujarat would produce 2000 tons of raw-material in the next five years, through shrimp culture (MPEDA, 2007). Further, “A comparison study of FAO of the supply and demand projections for fish and fishery products shows that demand would tend to exceed potential supply. The deficit for all type fish (combined) would amount to 9.4 million tons by 2010 and to 10.9 million tons by 2015. The study also indicates that developing countries as a whole would increase their net export of fish and fishery products from 7.2 million tons in 1999/2001 to 10.6 million tons by 2010” (FAO, 2004).

7.14 Value of Fish Export

The value of export of fish and fishery products from Gujarat is likely to expand from Rs. 95787 lakhs to Rs. 38938 lakhs in 2000, to Rs. 134725 lakhs by 2012. This represents an annual growth rate of 28 percent; compared with 33 percent during the previous 10 years. The value of fish export would increase from Rs. 38938 lakhs in 2000, to Rs. 149186 lakhs by 2015, and to Rs. 173289 lakhs by 2020. The value of fish export would increase as a result of increase in the volume of fish export.

7.15 Price of Fish Export

The price of fish export is projected to expand from an average of Rs.18.17, to Rs. 52.18 in 2000, to Rs. 70.35 by 2012. This represents an annual growth rate of 11 percent compared with 13 percent during the previous 10 years. The price of fish export would increase on an average from Rs. 52.18 in 2000, to Rs. 70.10 by 2015, and to Rs. 69.77 by 2020. There will be a global shortage in the supply of fish in the future leading to price rise. The food and Agriculture Organization (FAO) has estimated that global fish consumption will rise by 25% by 2030 (Nambudiri, D., 2007). The average world consumption per person could grow from 16 kgs. a year in 1997, to 19-20 kgs by 2030. The global demand for fish and fish products will increase due to growing population, traditional preferences and a pronounced shift in affluent societies towards healthier eating patterns (Nambudiri, D., 2007).

7.16 Conclusions

India has more fish supply than its demand as per the study of M. B. Dastagiri and Mruthyunjaya. India will have 4.48 million tones surplus of fish in 2020. It shows clearly that India has high potentiality for fish export (Dastagiri and Mruthyunjaya, 2003). According to Sinha and Malhotra, India has the potential to double its exports of the marine products to almost 8 lakh tons by the year 2020 and to 10 lakh tons by the year 2030 (Malhotra and Sinha, 2007).

In the present study, the respondents were asked to express their views about the potentiality for their products. 5.2% of them were of the view that demand for their products would decrease in future due to competition and 34.5% of the respondents were of the view that the demand for their products would remain the same, whereas 60.3% of the units were of the view that demand for their product would increase in the future. The result of regression analysis also indicates that the future of fish processing in Gujarat would be bright. However, this future depends on how fish processing units react to emerging constraints and opportunities, as mentioned previously in this chapter.

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