

EXPORT DEVELOPMENT : PROCESS AND POTENTIAL

**A STUDY WITH SPECIAL REFERENCE TO THE
MARINE PRODUCTS INDUSTRY IN INDIA**

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1991

DECLARATION

I declare that the thesis " Export Development : Process and Potential- A Study with Special Reference to the Marine Products Industry in India " is the record of bona fide research carried out by me under the supervision of Prof. N.Ranganathan, Director, School of Management Studies, Cochin University of Science & Technology. I further declare that this has not previously formed the basis of the award of any degree, diploma, associateship, fellowship or other similar title of recognition.


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Chapter 1

INTRODUCTION

1.1. Importance of Export Development

Export development is an important ingredient of the economic development strategy of almost all nations of the world. The reasons for this or the relative importance of the different objectives of export development may vary among nations. A country may need to boost its exports to earn enough foreign exchange to finance the imports and to service foreign debt. Secondly, when the domestic market is small, foreign market provides opportunities to achieve economies of scale and growth. Thirdly, when the supply of a commodity, as in the case of certain agricultural commodities in India, is more than the domestic demand, there should be a vent for the surplus to maintain employment and income. Fourthly, exports may enable some countries to achieve export-led growth. Fifthly, export markets may help mitigate the adverse effects of domestic recession. Lastly, even when a country enjoys balance of payments surplus, export promotion may be required to maintain its position against international competition and to maintain a certain level of domestic economic activities.

Indeed, most of the benefits of exports mentioned above call for a vigorous export development strategy in India.

Export development received considerable attention in India since the Third Five Year Plan, particularly since the announcement of the Export Policy Resolution in 1970. However, the export performance of India has been disappointing in relation to her needs and potential as well as the performance of many other countries. The trade deficit has been looming large despite lot of import restrictions, and the external debt has been mounting up. The substantial decline in the invisibles current account surplus in recent years and the consequent decline in its role of financing the trade deficit have made the situation more alarming. It is, therefore, necessary to take effective measures to boost exports.

1.2. Importance of the Study

In the light of the above, this study seeks to analyse the reasons for the poor export performance of India with special reference to the marine products* industry which has been identified by the Government of India as one of the thrust sectors for export development.

* The term marine products used in this thesis has the same interpretation as given in the Marine Products Export Development Authority Act, 1972. According to Section 3(h) of the Act, "marine products include all varieties of fishery products known commercially as shrimp, prawn, lobster, crab, fish, shell fish, other aquatic animals or plants ~~or part~~ thereof and any other products which the Authority may, by notification in the Gazette of India, declare to be marine products for the purpose of this Act." It may, however, be noted that the marine products exports of India is confined, by and large, to seafoods.

Although there are a number of studies pertaining to some or other aspects of the development of the marine products industry and seafood exports, this is perhaps the first comprehensive study of the marine products export development relating it to the national economic planning and export strategy.

This study, besides making a general evaluation of India's export development, highlights the deficiencies of the development process and strategy for a sector with very good export potential and suggests measures for a healthy development. Findings of this study may have implications for other export products facing similar problems.

1.3. Objectives

The main objective of this study is to examine the deficiencies of the export development process and strategy in India and, to suggest, in the light of the findings of the above, measures for improvement. The marine products industry has been chosen as a case for a detailed investigation. This calls for an:

- (i) evaluation of India's export development in general;
- (ii) analysis of the export potential for India's marine products;

- (iii) analysis of the trends in the international market for marine products;
- (iv) evaluation of the fisheries development in India;
- (v) evaluation of India's marine products export performance;
- (vi) identification of the major hurdles in increasing exports of marine products from India; and,
- (vii) evaluation of the adequacy and effectiveness of the measures taken to promote marine products exports.

1.4. Hypotheses

The following hypotheses have been formulated for the purpose of the investigation:

(1) The absence or deficiencies of the export development strategy and the deficiencies in the implementation of the plans and programmes have contributed to the poor export performance of India.

(2) The inherent bias in the economic policies against exports, the lucrativeness of the domestic market, and, the small volume of business and the meagre resources of the Indian exporters and their general lack of commitment to export development have seriously affected India's export performance.

(3) India has failed to satisfactorily exploit the export potential of marine products due to the deficiencies of the export development strategy and the implementation of the plans and programmes.

1.5. Methodology

1.5.1. General Framework

Export development involves establishing an enduring product-market nexus. For analysing the export development process of marine products and assessing the role of promotional measures in export development, the following situations have been visualised.

Situation-I:

Well-established product-market nexus.

In this case, the product is regularly exported to certain foreign market(s). Although this situation is generally characterised by a fairly long standing nexus, it may entail several risks such as:

- (a) Loss of market share due to new or intensified competition.
- (b) Set back to export due to competition from substitutes.
- (c) Decline of the market due to changes in tastes and preferences.

The marketing tasks in such a situation are to maintain and expand the market by effectively combating competition, diversifying markets, finding new uses for the products, product modifications and marketing innovations.

Situation-II:

Product and foreign market exist but the product-market nexus is not established.

The absence of sales in the foreign market may be due to lack of awareness of the foreign market, low profitability or even loss in the event of exporting, or difficulties in export marketing.

The task here is export promotion which involves taking measures to make exports profitable and development of export marketing infrastructures to encourage exports. It also includes increasing production to generate exportable surplus where absence or inadequacy of exportable surplus is a problem.

Situation-III:

Market exists, product does not exist.

The main task here is product development. In some cases it may involve acquisition of foreign technology and other assistance.

Situation-IV:

Product exists, market does not exist.

There may be products with potential foreign demand but no exports now because the potential consumers are not

aware of the products or are not convinced of the utility of the products. The task in such a situation is market development.

Situation-V:

Neither product nor market exists.

There are often opportunities for identifying potential needs of consumers and innovating products accordingly.

Exportable products may fall under any of the five situations described above. Export development is, therefore, a process which involves the establishment of enduring product market nexus under different situations. Such a nexus may be established solely by the exporter or the State or by the joint efforts of both in which the State assists and encourages the exporter in the process. The nexus may also be established by the foreign importer or jointly by the importer and exporter and/or the State.

The above framework is used in this study to examine the export development process and to identify certain deficiencies of the development process.

Export development involves several measures encompassing output, cost, price, finance, marketing, infrastructure and organisation, incentive etc. In other words, export development is influenced by several macro economic

policies like industrial policy, agricultural policy, monetary policy, fiscal policy, import-export policy etc. The export strategy is, thus, closely intertwined with the macro economic policies. The process and prospects of development of marine products export should, therefore, be studied in relation to the macro economic environment and the national export strategy.

This study has been made with the input of both secondary and primary data. The assessment of the overall export development of India has been made entirely with secondary data. The study of India's marine products' export development is based on both primary and secondary data. The major reliance, however, has been on the secondary data. Primary data have complemented and supplemented the secondary data.

1.5.2. Secondary Data

Important sources of secondary data have been the following:

1. News and factual reports in dailies, periodicals etc.
2. Research reports.
3. Research papers and articles.
4. Publications of various organisations.

5. Works of individual scholars, both published and unpublished.
6. Internal records of various organisations.

1.5.2.1. Review of Literature

Collection of the required data from the sources 1 to 5 referred to under Section 1.5.1. involved a review of the available literature pertaining to the research problem.

The nature and scope of the study necessitated a review of the literature in three broad areas, viz.,

- (i) Export development of India in general.
- (ii) Marine products' export development of India.
- (iii) Global developments related to production, consumption and marketing of marine products.

An overview of the important literature, covering these areas, scanned for the purpose of this study is given below.

The Five Year Plan documents give a general picture of the export policy and promotional measures. The annual reports of the Ministry of Commerce, Government of India, provide a very brief review of the export promotion measures. Similarly, the Reserve Bank of India's Annual Reports on Currency and Finance and the Government of India's Annual

Economic Survey provide a brief account of the developments in the area of foreign trade, including policy developments and promotional measures.

Details of government's Import-Export Policy and regulations are given by the Import-Export Policy, which were announced for every year until 1985 and for three-year periods since then. The announcements of the Import-Export Policy have been followed by editorial comments/articles embodying critical evaluation of the policy in most of the Economic, Commercial and Management periodicals and dailies.

Evaluation of the export performance, strategy and promotional measures have been made by several committees appointed by the Government of India. At the macro level, there were four such Committees. Reports of these Committees have highlighted the adverse effects of domestic economic policies on export development, problems caused by absence or inadequacies of a perspective export development strategy, deficiencies of the trade promotion regime and the weaknesses and deficiencies of India's export sector.

The Import and Export Policy Committee (Mudaliar Committee) Report (1962) pointed out that the country touched only a fringe of the export problem and that an important lacuna in the export effort was that adequate

steps were not taken to devotail the import-export targets with plans and projections in the private and in the public sectors and to lay the foundation of a big trade. However, the Committee did not consider the export problems very exhaustively.

The Committee on Export Strategy for 1980s (Tandon Committee) in its Report (1980) made an evaluation of the export performance, identified the important problems of the export sector, evaluated the performance of different export promotion measures and agencies and made a number of recommendations for strengthening India's export sector.

The Report of the Abid Hussain Committee on Import-Export Policies (1984) has endorsed several points brought out by the Report of the Alexander Committee on Import-Export Policies and Procedures (1978). Both these committees which have gone into the various aspects of trade policies have emphasised the importance of exports and the rationale of export promotion policies. Recommendations of these committees pertain broadly to the rationalisation and strengthening of the export promotion measures, simplification of procedures and improving export capability through expansion of production base, technological upgradation etc.

The National Council of Applied Economic Research has made a study of 'Export Strategy For India' in the late 1960s. The study which examined the role of exports in economic development pointed out that in India adequate attention had not been paid to export planning. This study also noted the adverse effects of import substitution and other economic policies on exports. Pointing out that ultimately larger and larger production is the master key to export development, it argued for an entirely new and bold approach to promotional effort in which, inter-alia, a direct linkage of imports to exports is forged.

There are a number of publications of individual studies of India's export performance and export strategy.

One of the first studies which attracted considerable attention was that of S.J.Patel (1959) which argued that India's stagnant export earnings during 1950s was due to stagnant world demand for Indian exports. Krueger (1961) disagreed with this line of argument and maintained that the past behaviour of Indian exports could be more than adequately explained by the policies of Government of India and the Planning Commission combined with internal demand and supply factors.

Manmohan Singh (1964) strongly disputed Patel's demand stagnation thesis and convincingly established that the

stagnation in India's export earnings during the 1950s was mainly due to India's failure in maintaining the share of her major exports in the international market.

Bhagwati and Desai (1970) have substantiated the arguments of Manmohan Singh and Krueger. Important studies made subsequent to this by several other scholars have also subscribed to the above view.

Rameshwar Tandon's study (1983) provides a critical evaluation of India's export strategy and highlights the inefficiency of several export promotion measures. Tandon and Hatti (1987), besides analysing the terms of trade, have examined several aspects of India's foreign trade policy and development strategy.

Martin Wolf's work (1982) based on several notable studies, including unpublished World Bank reports, has provided a critical review of India's export performance, export strategy and export promotion schemes and has given a short account of the major issues and controversies.

Modwel and Varma (1986) have provided a very brief account of the salient features of development of India's exports, encompassing also the important policy developments and the institutional infrastructure and promotional measures.

Panchamuki (1987) has made a very critical evaluation of India's trade policies and has highlighted the structural weaknesses of the external sector.

Two studies made by the Industrial Credit and Investment Corporation of India (1977; 1985) have shown that the export incentives in India are not sufficient enough to make exporting a reasonably profitable business. Bhatia's study (1987) has shown that export incentives proved ineffective in pushing up export-output ratio.

The Survey of India's Marine Products Export Potential conducted by the Indian Institute of Foreign Trade, New Delhi (1970) was the first systematic and comprehensive study pertaining to marine products exports. The Survey Report, brought out in six volumes, has provided a review of the development of the marine fisheries under the plans, identified major problems in increasing the production and exports and made a number of recommendations for the systematic development of the industry and the improvement of the export performance. The Report of the National Commission on Agriculture (1976), which has reviewed the development of fisheries and seafood exports under the plans, has pointed out that the major problems on the export front were non-availability of raw material for processing, lack of diversification of exports and lack of proper development and promotion of consumer packs.

Reports of several study teams/delegations appointed by the Marine Products Export Development Authority to countries like U.S.A. (1979, 1980, 1982), Japan (1980, 1982), and Malaysia, Singapore and Hongkong (1981), have explored the problems of marketing Indian seafoods in various foreign markets and have suggested several remedial measures.

The Report of the Task Force on Marine Products (1982) has reviewed the exports of marine products, examined the various problems of marine products exports and has recommended a number of measures to be taken by various organisations to increase and diversify marine products exports.

Besides these studies made by committees or study teams, there are several individual studies pertaining to the development of the marine products industry and exports.

Srivastava, Reddy and Gupta (1982) have analysed the opportunities and problems of development of the marine fisheries. Srivastava and Kulkarni (1985) have presented a systems approach to the development of the marine foods industry. K.M. Joseph (1987) has given a region-wise estimate of the yield and potential of the various fishery types in the Indian exclusive economic zone. Srivastava and Rajeshwari Metha (1985) have reviewed the evolution of

chartering policy and its implementation in India. Pusalkar and Mammen (1985) have examined important aspects of joint ventures in fisheries. Bhakta (1987) has given a brief account of the infrastructural requirement for developing the marine products industry.

The Ph.D. thesis of Rajasenani (1987) and of Baby Jacob (1985) have provided a brief account of the growth, problems and prospects of marine products exports. Nair (1987; 1988) has reviewed the performance of Indian marine products and have made several suggestions for boosting the exports. There are a number of other papers and articles about marine products exports and all of them are more or less similar in nature- they review the export performance and point out the lack of diversification and certain common problems associated with Indian seafoods exports.

The Chairman's speech at the annual general body meetings of the Seafood Exporters' Association of India and the editorial comments, news reports and articles appearing in the Association's monthly publication, 'Seafood Export Journal', highlight the important problems of seafood export industry, policy developments and various issues and developments pertaining to the seafood industry. 'Fishing Chimes', a quarterly, publishes news items and critical comments pertaining to fisheries and seafood exports.

Periodic publications of the Marine Products Export Development Authority are regarded as authentic sources of data pertaining to India's seafood exports. The annual publication 'Statistics of Marine Products Exports' gives statistical details of the exports. The monthly publication 'Seafood Newsletter' reproduces important news items, both national and international, relevant to seafood exports. 'Indian Seafoods', another publication of the MPEDA, which is meant mainly for circulation abroad, also reports important developments related to India's seafood industry.

The Five Year Plan proposals brought out by the MPEDA give a review of the development of fisheries and seafood exports, progress of various schemes and proposals of plans and programmes for the ensuing Five Year Plan period.

The Central Marine Fisheries Research Institute (CMFRI) is a very important source of information regarding the fishery resources and landings. The Institute disseminates the information through its Annual Reports, Bulletins and Special Publications. 'Seminar on Potential Marine Fishery Resources' (1987), a compilation of the papers presented at a seminar and 'National Symposium on Research and Development in Marine Fisheries' (1989), a collection of papers presented at a national symposium, provide a detailed estimate of the potential and yield of different categories of marine fishery resources of India's exclusive economic zone (EEZ).

The Report of the Special Group of Scientists of Fishery Survey of India entitled 'An Appraisal of the Marine Fishery Resources of the Indian EEZ' (1988) provides estimates of the fishery resources of different regions and zones and the vessel requirements for their exploitation.

" Fishery Resources of the Indian Economic Zone " by George et. al. (1977) is a highly acknowledged paper and their estimate that the fishery resources of the Indian EEZ is about 4.5 million tonnes per annum is widely accepted.

The 'Handbook of Fishery Statistics', published annually by the Fishery Survey of India, is a very useful data bank on fisheries, compiled from various sources.

For quite sometime now, there has been a view that there is overfishing in several areas, like several parts of the sea adjoining Kerala. The view that the modern fishing sector is prospering at the expense of the artisanal sector has also led to clashes between these two sectors. As a response to this, Government of Kerala appointed three expert committees to inquire into certain aspects of management of fisheries resources. One of the important issues addressed to by all these committees was whether there should be a ban on certain types of fishing during certain periods. The opinion of the Committee

To Study The Need For Conservation Of Marine Fishery Resources During Certain Seasons Of The Year And Allied Matters (D. Babu Paul Committee, 1981) was divided in regard to the need for adopting a closed season as a management measure for trawling boats. Those who opposed the introduction of closed season for trawling maintained that there was no indication of biological overfishing, but there were definite indications of economic overfishing owing to inadequate management measures and unregulated entry of trawlers, while the other members were of the opinion that there were symptoms of biological overfishing of prawns, which they contended, could be remedied by imposing a ban on trawling for shrimps during the monsoon season. The lack of unanimity in the recommendations of the Babu Paul Committee on the issue of monsoon trawling and the continuing unrest in the traditional sector necessitated the appointment of another Committee by the Government, with Sri.A.G. Kalawar as the Chairman, in 1984. This Expert Committee on Marine Fisheries in Kerala (1985) did not agree to a ban on monsoon trawling but suggested a series of measures for the conservation and management of resources. These included, among others, proposals to reduce the number of trawling boats to 1145, motorised craft to 2690 and non-motorised craft to 20,000. The Committee expressed the view that purse seiners are

unnecessary for the exploitation of the pelagic resources of Kerala. The recommendations of the Kalawar Committee were not fully implemented. In the light of the crisis Kerala was confronting in the fisheries sector characterised by surplus production inputs, unsteady catches, shrinking margin of returns, overinvestment, uneconomic operations and a general social unrest, Government of Kerala appointed yet another Expert Committee on Marine Fishery Resources Management in Kerala under the Chairmanship of Professor N. Balakrishnan Nair. The Committee in its Report submitted in June 1989 reviewed the status of marine fishery resources and their exploitation in Kerala and recommended delimitations of fishing zone for the different types of crafts, a total ban on trawling by all types of vessels in the territorial waters of Kerala during the months of June, July and August, phasing out of mechanised trawling boats and ring seines, prohibition of use of crafts fitted with OBM with more than 15 H.P.

There are a number of foreign journals and periodicals which regularly report important developments in the international seafood market. Several of them also publish research findings and market forecasts. Notable such publications include 'Infofish International', 'Infofish Marketing Digest', 'Seafood International', 'European

Frozen Food Buyer', 'Quick Frozen Food International', 'Frozen Food Age', 'Fish International', 'Seafood Business' etc. It is not feasible to give here an exhaustive list of all the important reports and articles which have appeared in these publications. Some of them, however, deserve a special mention.

Josupeit in his 'Fishery Commodity Review and Outlook, 1989-'90' (1990) provides a very good account of the global trends in fish production, consumption and trade, while Peckham gives a fairly detailed account of the production, consumption and trade trends in respect of shrimp for the three major markets, viz. the U.S., Japan and Western Europe in his 'Shrimp: global supplies, usage outlook and overview of changing conditions' (1990). A comprehensive picture of the emerging trends in the Japanese seafood market is provided by Kano in the 'newly emerging seafood markets in Japan' (1989). The editorial of the new year issue (1990) of the Seafood International takes a look at the possible exciting developments in the international seafood market in the new decade.

There have been some important comprehensive research reports and compilations of symposia papers on the production, consumption and trade trends of shrimp, the most widely and largely traded seafood category. 'Shrimp: A Survey of World

Markets' (1983), brought out by the International Trade Centre; 'Shrimp 88' (1988), papers presented at a symposium organised by the Inffish; and 'The Shrimp Industry: Global Subsector Study' (1989) by the World Bank's Industry and Energy Department are the most important of them.

1.5.2.2. Internal Records

Besides the published ones, some important data have been obtained from the records of the organisations like MPEDA and from the India Trade Centre, Brussels.

1.5.3. Primary Data

Primary data have been collected to supplement the secondary data regarding the problems faced by the exporters of marine products, problems of the marine products' export sector, impressions of seafood importers abroad about the Indian Seafood exports, prospects of India's seafood exports etc.

Primary data have been collected by interviewing a cross section of the exporters, foreign importers who attended the 8th Indian Seafood Trade Fair and other knowledgeable persons like representatives of industry and trade associations, officials of organisations connected with the development of the fisheries and seafood exports and academicians.

The primary data gathered have helped to confirm some of the conclusions drawn from the secondary data and have provided some information that were not available from the secondary data.

1.5.3.1. Survey of Exporters

Exporters have been directly contacted to get a more intimate knowledge of their problems and operational characteristics of the exporting units. Indeed, the memoranda and representations and publications by the Seafood Exporters' Association are valuable sources of information pertaining to the problems faced by the exporters. There are also several other secondary sources throwing light on the problems, nature and status of the seafood export industry in India. Information obtained from these sources has been enlarged and enriched by interviewing a cross section of the exporters.

Thirty exporters, representing nearly 6 per cent of the total number of exporters in 1989-'90, were interviewed in all. These included exporters with long standing experience on the one hand and those who have just entered this business on the other; small, medium and large exporters (including export houses); single product exporters and multi-marine product exporters; exporters who have own fishing operations and those who partly or

solely depend on raw material supplies from outside sources; partnership firms, private limited companies and public limited companies (including multinationals); exporters using hired/leased processing facilities as well as those having own facilities; and manufacturer exporters as well as merchant exporters. These exporters were spread in different parts of the country, viz., Delhi, a place far removed from the processing centres; Visakhapatnam, a major fishing harbour and important seafood processing centre; Madras, an important centre for marine products exports for a long time now; Cochin, the cradle of modern seafood exports from India; Quilon, where some of the leading exporters are located; Cannanore having an isolated seafood exporter; Calicut having only two units; and Bombay which is also an important seafood export centre. Discussions were also held with three companies/entrepreneurs who have given up seafood exports.

The sampling technique used for the survey of exporters was a combination of stratified, convenience-cum-judgement. A semi-structured pre-tested and modified schedule was used to collect information from the exporters. The schedule is reproduced in Annexure-1.

1.5.3.2. Expert Opinion

Valuable information has been obtained by discussions

with other knowledgeable persons, besides exporters. They included past and present office bearers of the Seafood Exporters' Association, Association of Indian Fishery Industries; officials of Marine Products Export Development Authority, Central Marine Fisheries Research Institute, Integrated Fisheries Project, Central Institute of Fisheries Technology and Export Inspection Agency; bankers; exporters'/importers' agents and academicians. Discussions with some of the foreign delegates at the Eighth Indian Seafood Trade Fair held at Madras on 10-12 February 1989 have also been very useful.

1.6. Limitations

For information on the foreign market conditions secondary data available with the library of Marine Products Export Development Authority was the major source. Requests for certain information from the trade promotion offices of the MPEDA at New York and Tokyo were not at all responded to (in sharp contrast to the good response from the Japanese External Trade Organisation).

Personal discussions could be held with three established foreign importers of seafood. This limitation of the number of importers, however, has not been a serious one in view of the availability of the views and impressions of the foreigners about the Indian Seafood export industry through the reports

of the MPEDA's Study Teams to various foreign markets and through publications like the Seafood Export Journal.

Another limitation of the study has been that certain important data, like the details of the foreign exchange earnings from seafood exports, have not been available even with the MPEDA. Yet another limitation is that sufficient data for a detailed analysis of the situations described under Section 1.5.1 have not been available with the organisations which have been expected to have such information

1.7. Organisation of the Report

This thesis is divided into eleven chapters including this introductory chapter which describes the study and provides a review of select literature pertaining to this study.

Export is a dependent factor. Given the foreign market conditions, it depends on the domestic economic conditions, macro economic policies, relative importance given to the export sector in the economic development planning etc. The second chapter, therefore, critically reviews the effects of economic planning and policies on export development and the major problems of India's export sector which are mostly an offshoot of the development strategy and policies followed.

Export is fostered by a set of a regulatory and promotional measures. The third chapter reviews the regulatory and organisational framework for the orderly development of exports and describes the export promotion measures.

After having provided a critical account of the macro economic policies and development strategies as related to export development and of the export development measures in general in the two chapters mentioned above, it is endeavoured to provide a more specific and detailed analysis of the development of the export of marine products in the following chapters. This starts with an assessment of India's marine resource potential, in Chapter 4, in view of the fact that assessment of the resource potential and the economic viability of its exploitation is an essential prerequisite for export development planning. This is followed by a critical review of the fisheries development through the Plans in India, in Chapter 5. The importance of this chapter lies in the fact that the development of the fisheries forms the basis for the growth of the marine products exports.

An analysis of the trends in and other characteristics of the foreign markets is essential for evaluating

a nation's export performance and to formulate strategies for export development. This is done in Chapter 6.

Chapter 7 analyses and evaluates the export performance of India's marine products, focussing mainly on the growth of the exports, composition of the exports and direction of the exports.

A discussion of the important problems confronting India's marine products export industry is presented in Chapter 8.

Chapter 9 describes the survey conducted to collect primary data and presents the salient findings of the survey.

Chapter 10 presents in a summary form the major findings of the entire study and the inferences drawn therefrom.

Based on the above, Chapter 11, the last chapter, gives a number of recommendations for a healthy development of India's marine products exports.

Chapter II

ECONOMIC POLICIES AND EXPORT DEVELOPMENT IN INDIA

Economic policies determine the priorities and development patterns of different sectors. Economic policies, generally, have both positive and negative effects. While some sectors or segments may be positively affected by a policy, some others may be negatively affected and its effects may be neutral in respect of some.

The nature of economic policies should depend on, inter alia, the nature of the economy, priorities of development and development strategies. This chapter examines how the development strategies and economic policies have affected export development in India and the major problems of the export sector in India.

2.1. Export Performance of India

With a secular decline of India's share of world exports, almost stagnant export-GNP ratio, huge trade deficits, weakened position of traditional exports and with no commendable achievement of market position in new areas, India's export performance is considered very poor not only in comparison with the growth of the world exports in general, but also in comparison with the

export performance of many developing countries. India's export performance has, indeed, been quite disappointing in relation to both her potential and needs.

In fact, in the early 1950s India's economic position was much better than that of many countries. Among the developing countries, India had a relatively broad based industrial structure and significant export market share for several commodities such as tea, jute and cotton textiles. However, advantage could not be taken of this favourable position due to the absence of an effective export development strategy.

This failure on the export development front has resulted in the gradual decline of India's position in the international market.

Japan, which, in 1950, ranked only 19th in terms of the size of exports, compared to the 13th rank of India, rapidly moved up to become the third largest exporting nation by 1971.¹ On the other hand, India's share in the world exports declined from 2 per cent in 1950 to

1. Special correspondent, "Taking a leaf from Japan's book", Financial Express, 25, July, 1988, p. 3.

little over one percent in 1960, to 0.7 per cent in 1970, and further to 0.4 per cent by 1980. At the end of the 1980s, India's export was little over 0.5 per cent of the world exports, and the value of her exports in 1988 amounted to only about 5.5 per cent that of Japan. (In 1950 India's exports were 139 per cent that of Japan.)² While the People's Republic of Korea, which is relatively poor in industrial raw materials, by being a "huge transformation site", could achieve such a spectacular export growth as to increase the export-GDP ratio from less than 2 per cent in 1961 to over 35 per cent in 1988, in case of India, which launched the economic planning about one decade ahead of South Korea, exports have been stagnating at about 5 per cent of the GDP.³ India's export-GDP ratio compares very poorly with several other developing countries too. For example, in 1988, this ratio was about 24 per cent for Indonesia, 12 per cent for Mexico, 10 per cent for Brazil, 13 per cent each for Pakistan and China.⁴ A high export-GNP ratio is generally

2. Computed from the statistics given by World Bank, World Development Report 1990 (Washington D.C.; World Bank, 1990), pp. 204-5.

3. International Trade Centre, The Export Performance of the Republic of Korea (Geneva; ITC, 1984) p.5, and World Bank, ibid.

4. Computed from the statistics given by the World Bank, ibid.

associated with economic development. There are, of course, notable exceptions like the United States. The Foreign Trade-GNP ratio need not be high for a vast resource rich nation. Despite the long-term efforts to boost exports, the stagnation of India's exports at around 5 per cent of the GNP in the last four decades with mounting foreign debt, wide trade gap, and low levels of domestic consumption, however, is certainly a reflection of the failure of export development. The important factors which have caused this failure are examined below.

2.2. Effects of Economic Policies and Approaches

2.2.1. Export Pessimism and Indifference

A major reason for the poor export performance of India has been the absence of an effective development strategy that could maintain, let alone improve, her hold over the traditional markets and develop new markets. A review of government's attitude, policy and programmes and their implementation makes it clear that in India there have often been, inter alia, long delays in the recognition of need for action and inordinate time lag between need recognition and action.

It has been rightly observed that the

Indian export policy has evolved over the period from indifference, pessimistic neglect, and, for several major items, even a constellation of measures adding upto positive discouragement to growing encouragement via escalating subsidisation (culminating in the 1966 devaluation) and promotional measures undertaken by the Government. These two periods broadly correspond to the first two Five Year Plans (1951/56 and 1956/61) and the period thereafter.⁵

As a matter of fact, the first two Five Year Plans were formulated under the assumption that it would not be possible to achieve significant increase in exports during the early stages of development of the economy. The Second Plan document observed:

On the whole, the fact remains that the increase in exports that we visualise over the plan period is not very striking. India's export earnings are derived from a few commodities. Three of them, namely, tea, jute and cotton textiles, account for nearly one half of the total. These major exports are meeting increasing competition from abroad. This limits the scope for any

5. Jagdish N. Bhagwati and Padma Desai, India: Planning for Industrialisation (New Delhi: Oxford University Press, 1970), p. 368.

substantial increase in exports in the short run. While every effort has to be made to promote exports of new items and to develop and diversify the markets for the country's major exports, it has to be recognised that it is only after industrialisation has proceeded some way that increased production at home will be reflected in larger export earnings.⁶

The Third Plan document has indeed admitted that:

One of the main drawbacks in the past has been that the programme for exports has not been regarded as an integral part of the country's development effort under the Five Year Plans.⁷

The Import-Export Policy Committee (Mudaliar Committee) pointed out in 1962 that

if we were to discard historical times, for the moment, it could be said that the country had no great export tradition. Nor has one been developed so far- much less have we developed the necessary export apparatus ... so far the country has touched only a fringe of the export problem. An important lacuna in the export effort is that whereas targets of a high order have been, theoretically, drawn up, adequate steps have not yet been taken to dovetail

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6. Government of India, Second Five Year Plan (New Delhi: Planning Commission, 1950), pp. 98-99.
7. Government of India, Third Five Year Plan (New Delhi: Planning Commission, 1961), p.137.

the import-export targets with the plans and projects of development in the private and in the public sector and to lay the foundation of a big trade.⁸

The Committee further added:

There is no clear picture as to what items, specially non-traditional items, would be available at a given time for export; how they would be available and in what quantities; and by what measures and means, and where, would these quantities be outletted.⁹

The above anecdote from the official documents clearly evince the official pessimism and the resultant failure to take adequate development measures on the export front.

This bearishness with regards to exports is attributable to two specific perceptions. Exports of primary products or of traditional manufactures based on them were seen as facing poor demand prospects in the world market. At the same time, it was felt that other newer manufactures had little likelihood of securing a sizable export market until industrialisation itself was well under way. The natural consequence

8. Government of India, Report of the Import-Export Policy Committee (New Delhi, 1962), pp. 23-24.

9. ibid., p.24.

of such export pessimism was a conviction that, in the long run, industrialisation could lead to a viable balance of payments only if it was based on a programme which minimised imports. Much of policy was dominated by a feeling of export pessimism. Thus, import substitution, particularly in basic, intermediate and machine building, became a major element of trade policy in the late fifties, while exports suffered relative neglect.¹⁰

In short,

on the one hand there was a widespread feeling that not much could be done to increase export earnings in view of the stagnant demand for India's major exports. On the other hand responsible economists were assuring the country that import substitution, wherever it meant, would by itself be able to solve India's balance-of-payments difficulties, so that India would, in fact, not need a greatly intensified export in the long run. The result was a neglect of exports and, even the available opportunities were missed out.¹¹

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10. Abid Hussain, "Foreign Trade Policy in Indian Planning", address delivered on the Annual Commencement Day of Exim Bank, Bombay, February 4, 1988 (Reproduced in Mainstream 4 and 20 February, 1988).
 11. M. Manmohan Singh, India's Export Trends (Oxford: Clarendon Press, 1964), pp. 337-8.

It is quite clear that it was the export pessimism which reflected in the neglect of export promotion and certain government measures which biased against exports which were responsible for the stagnation of India's export earnings in the 1950s. As several authors¹² have pointed out, the domestic policies of the Indian government via export controls and quotas, export duties, inflationary pressures and policies aimed at promoting domestic consumption were inhibiting the expansion of export earnings.

There was indeed a sluggishness in the world market for several of India's traditional exports; but India evidently failed to make the best use of whatever trade possibilities were available and this was reflected in the decline "in shares of India's exports in world trade in tea, jute manufactures, cotton textiles, tobacco and vegetable oils and oil seeds"¹³ According to the estimates of Bhagwati and Desai, the additional foreign exchange which India could have earned if she could maintain her share in the world exports of the five commodities mentioned above and if she could achieve the potential

12. For example Jagdish Bhagwati and Padma Desai, op. cit.; Manmohan Singh, ibid., and Rameswar Tandon, Some Perspectives on India's Trade Policy (Allahabad: Chugh Publications, 1983).

13. Bhagwati and Desai, op. cit., p. 378.

improvement in export of coffee, manganese ore, leather, spices, raw wool, coir manufactures, and newer manufactures involving light engineering goods, over the decade 1951-60, could reasonably be put close to Rs.8200 million compared to the total export earnings of about Rs. 60,332 million during the period. Maintenance of India's market share in respect of the five commodities specified above would have increased their export earnings by about 16.5 per cent amounting to Rs.5,740 million.¹⁴

According to Manmohan Singh ,

it is hazardous to offer a quantitative estimate of export earnings lost through neglect or inaction, but our analysis of India's major exports ... suggests that had India's relative share of world exports of these commodities in 1958-60 been the same as during 1948-50, her export earnings would have been 15 to 20 per cent higher than they actually were; i.e., she would have earned an additional foreign exchange worth Rs.900-1200 million a year during the late fifties. One can form an idea of the lost opportunities from the fact that this is roughly the entire foreign exchange cost of a steel plant with an annual capacity of one million tons.¹⁵

14. ibid., p. 378.

15. Manmohan Singh, op. cit., p. 338.

The export pessimism and the resultant indifference to export development in the earlier Plans resulted in the neglect of several sectors, including the fisheries, with tremendous export potential. Further, even after recognising the export potential of many products, the failure to harness the potential fully has been more conspicuous than achievements. Examples of such cases are cited later in this chapter.

2.2.2. Effects of Import Substitution Orientation

The over-emphasis on import substitution as a development strategy and as a means to help achieve trade balance and the lack of appreciation of the export development potentials have had severe adverse effects on the export development. While foreign exchange was available even for indiscriminate import substitution because of the respectability attached to import substitution, genuine needs of the export sector were overlooked.

Thus, in the mid-fifties, while export industries like jute and cotton textiles were denied foreign exchange for their much-needed modernisation, a much too liberal approach was followed in India in allocating foreign exchange to many non-essential industries in the name of import substitution.¹⁶

16. ibid., p. 34.

Import substitution and the associated protection of domestic industries had other adverse effects too. The sheltered domestic market acted as a deterrant to efficiency improvement and thus the "prospects of newly established industries becoming at some stage earners of foreign exchange are further diminished".¹⁷ The relatively high profitability of the sheltered domestic market made the export market for many products unattractive. The Mudaliar Committee observed:

The domestic market, ready at hand, offers more attractive, quick and easy returns, and claims a larger share of the country's output. In these circumstances the incentives to efficiency became relatively weak. This is more so because the current import and exchange restrictions provide a sheltered market to the domestic product, free from the edge of external competition—in many cases, even internal competition.¹⁸

The Committee on Import-Export Policies and Procedures (Alexander Committee), Committee on Export Strategy for the 1980s (Tandon Committee) and the Committee on Trade Policies (Abid Hussain Committee) have also commented on the adverse

17. ibid.,

18. Government of India, Report of the Committee on Import-Export Policies, op. cit., p. 23.

effects of import substitution and the indiscriminate protection on the productive efficiency and exports. In early January 1987, Mr. Rajiv Gandhi, the then Prime Minister, remarked that licensing policies had at times protected the producers not only from external competition but also from domestic competition by limiting the freedom of industry to expand and invest.¹⁹

The high input costs due to protection, production units of uneconomic size and certain other factors have increased the cost of production of exportables. World Bank's various studies have identified such cases as a price premium of 300 per cent on synthetic fabrics for garment manufacturers; prices of basic chemicals and raw materials for the chemical industry averaging 90 per cent above world prices; prices of batteries, tyres and electrical equipment, which are inputs to commercial vehicles and tractors, all two to three times above c.i.f. prices; prices of forging quality steel from 50 to 60 per cent above international level; and prices of high speed steel for cutting tools also 50 per cent above the international level.²⁰ Import restrictions have starved

19. Cited by Indian Economic Diary, January 1-7, 1987.

20. Cited by Martin Wolf, India's Exports (Washington: Oxford University Press, 1982), p. 68.

the export sector of quality raw materials and components at competitive prices and thus the unpragmatic trade policy has discouraged export development.

2.2.3. Impact of Industrial Policy

Besides the trade policy, other economic policies, particularly the industrial policy, too have had adverse effects on the development of exports. The MRTP regulation, industrial licensing etc. have retarded competition, decelerated growth and contributed to the foreign trade gap. The Narasimhan Committee has succinctly put it:

Indian industry has been insulated also from internal competition, because of, among other reasons, the operation of a wide array of controls on investment and production as a result of which those fortunate to have been licensed to invest and produce have pre-empted a share of the market by virtue of administrative action rather than economic competitiveness. ... The existing licensing system has also not ensured sufficient resource use in our industrial economy since in the protected market conditions an industry could be financially viable even though it is not economically viable in the overall national context. There is, therefore, a widely shared view that the actual performance of the industrial sector has fallen short of the

potential and this has given rise to a feeling that the entire framework of industrial policy needs review and reform.²¹

George Rosen, the American Economist who is the author of several books on India's economic policy and who carried out three studies of Indian industrialisation, in the late 1950s, early 1960s and early 1980s, exclaims in the last study:

I was struck by how much the control system over industry had grown by 1983-84 when compared to that of the late 1950s. The added restrictions on growth and entry by large firms have created new opportunities for private firms to earn monopoly rents or to enhance existing rents. Such rents arise from having first access to restricted or reserved production areas. In many cases, the possibilities of gain from achieving such a position are more lucrative than from actually increasing production.²²

21. Cited by D.J. Kanvinde, "New Trusts in Industrial Policy and Emerging Challenges for the Banking System", State Bank of India Monthly Review, May 1988, pp. 235-6.

22. George Rosen, Industrial Change in India: 1970-2000 (Ahmedabad: Allied Publishers Pvt. Ltd. 1988) p. 21.

How inept and self-defeating have some of the government measures been is illustrated by the following case. In the early 1970s, "having failed to make any headway within India, the only alternative left" for the Birla was to set up industries in other countries and hence it put up several successful companies in all the ASEAN countries.

This was surely a paradox. The same government which refused us permission to set up manufacturing capacities within the country allowed us to set up industries outside the country for which it had said 'no' in India. Thus, we set up a viscose staple fibre plant in Thailand and started exporting fibre back to India.²³

The case cited above tends to support the following observation:

The evidence ... suggests that one of the most important motivations behind foreign direct investment by Indian firms has been the desire to escape the constraining effects of Government of India's policy. It appears that a number of Indian locally domiciled foreign collaboration industries, those involved in manufacturing at least, go overseas to avoid a policy environment that restricts their

23. Aditya Birla, "State and industry must work together", Business India (10th Anniversary issue), 30 April 1988, p. 24.

domestic growth and undermines their competitiveness. To the extent that foreign direct investment from India takes place for such negative reasons, the phenomenon may be regarded as a disguised form of capital flight from India. In this context, Government of India's policy to encourage foreign direct investment from India on the grounds of its export generating potential can only be regarded as a 'second best alternative'.²⁴

The protection of the small scale sector too has had adverse effects on the exports. As Rosen observes, the policy of reserving products for the small scale sector

contributes to higher prices and runs counter to the government's professed anti-monopoly position, by confirming a near-monopoly or oligopoly position for those larger firms that were producing the reserved product before reservation. They are often firms that had been able to take advantage of some scale economies before reservation. They can no longer expand and are protected from competition from other large potentially efficient firms. In industries where such firms continue to produce output of high quality after reservation, they have a good and protected market. They can, if they wish,

24. Rajiv Lall, Multinationals from the Third World: Indian Firms Investing Abroad (Bombay: Oxford University Press, 1986), p. 89.

take advantage of their protected position to raise their prices and earn a monopoly rent.²⁵

The recent move by the Government to dereservation of certain bicycle components with a view to boosting export of bicycles is a clear indication of the inherent defect of the domestic industrial policy that hampers exports. Thus, the policy of reservation of a large number of items exclusively for production in the small scale sector has led to many distortions and often come in the way of exports.

No one can deny the importance of promoting small scale industries or of adopting those methods of production which promote employment. But an outright ban on medium and large enterprises has meant a drag on technical progress and what is worse, a deliberate fragmentation of the scale of production in an effort to get over the regulation and enjoy the enormous benefits which small industries are entitled to. The markets in Europe and America for light weight bicycles could not be served by production organised in the small scale sector and it is but proper that medium-sized enterprises should be allowed to explore the possibilities of serving them and earn foreign exchange

25. George Rosen, op. cit., p. 116.

It is time that the government took a conscious decision to dereserve progressively a large number of items and seek other ways of looking after the interests of small scale industries Evolution of policy in this direction has been slow, given the pressure of interests which are already established. But the urgency of augmenting exports dictates that the government should move quicker than it has done so far.²⁶

Government's textile policy has also hampered the growth of exports. It would be appropriate to note the observation of the Tandon Committee in this context.

Licensing restrictions limiting the creation or expansion of capacity in particular sectors can have the adverse side effect of preventing growth of capacity in areas with export potential. An example of this type of constraint on our export performance in the past is provided by the limits on loomage in the modern millsector in the textile industry, which prevented the development of capacity of the broad width type which is particularly important for the export market. We note that the rationale for this policy was the protection and promotion of the handloom sector because of its much greater employment intensity. While the employment objective is undoubtedly important, it is

26. Editorial, "Dereserve to export", The Economic Times, 23-1-1989.

relevant to consider whether the same employment objectives could have been achieved with a more flexible licensing policy which would have encouraged a sufficient growth of modern weaving capacity suitable for the export sector.²⁷

And India has not succeeded in making best use of the opportunities for handloom (which has been very much favoured by the government) exports. It has been pointed out, for instance, that India had a virtual monopoly for handloom garments in Japan, the demand for which was quite high in that country. However, India was not able to realise even the available opportunity because of problems from Indian suppliers such as stains on the garments, broken stitching and uneven pressing, below standard colour fastness etc.²⁸

2.2.4. Effects of Technological Factors

There is a growing feeling that the two most important considerations of tomorrow's consumers will be product quality and price. Future oriented companies, supported by their

27. Government of India, Report of the Committee on Export Strategy for the Eighties (New Delhi; 1980), p. 60.

28. V.L.Rao, "A Review of India's Balance Payments" in P.R. Brahmada and V.R.Panchamukhi (ed.), Development, Process of the Indian Economy, (Bombay: Himalaya Publishing House, 1987), p. 538.

national governments, therefore, strive to excell in these respects.

Advanced low cost manufacturing technology and highly automated factories will give global competitors of tomorrow a tremendous edge. Japan has worked toward that goal during the last 40 years and U.S. corporations now are beginning to invest for the future.²⁹

The high costs, complexities and swiftness of technological changes are encouraging strategic alliances between companies across the world. However, policies in India appear to be increasing the technological lag. The Tandon Committee, which has observed that there is growing feeling that whereas in the 1950s and 1960s our technology gap with the world was narrowing, today it is widening has pointed out that

there are many things we make today that have hardly progressed in technology since we started making them. This gap we should close, at least in the export sectors, and import technology from wherever it is more advanced than ours.³⁰

29. George J. McNally, "It is Not Just Possible- It's Impossible", Business Marketing, April 1986, p. 68.

30. Government of India, Report of the Committee on Export Strategy for the Eighties, op. cit., pp.7 and 13.

The Committee on Trade Policies considered the widening technology gap as an important factor causing the worsening of India's competitiveness in the international market. The Committee has stated that

in many sectors, particularly in manufacturing activities, these problems which reduce the competitiveness of our exports, have worsened over time. As the technology lags have increased, the productivity differentials have widened and the costs of inputs have continued to rise.³¹

Even today exports of many products are hampered by our technological backwardness. Even several of those sectors identified as thrust sectors for export development suffer from this problem. Although government has identified 14 product groups as thrust items for export,

the production capacity for most of these items in the country is small. The range is limited, the design, finish and packaging is not upto the world standards and efforts have been lacking in modernisation, technological upgradation, product development and research. In most of these product groups, there is an urgent need to increase the production volumes, inject new technology, improve quality standards, upgrade product designs and finish and intensify market penetration efforts.³²

31. Government of India, Report of the Committee on Trade Policies (New Delhi: Ministry of Commerce, 1984) p. 15.

32. M.L. Garg, "Constraint on Exports", The Economic Times, 19-8-1989, p. 5.

The Tandon Committee, which has felt that inadequate access to imported technology has prevented upgradation of the quality of domestic production and might have reduced our competitiveness in international market in some areas, has observed:

Consideration of international quality, performance and competitiveness are of prime importance in world trade, whatever be the standard we might impose upon our home market. We have, therefore, to keep the state of our technology under constant review, to ensure that our manufactures obtain an international acceptance, at competitive prices, and, above all, realise their full export potential and earnings.³³

A very important factor that is not taken note of in India is the loss of potential employment, besides other losses, due to the lost export opportunities due to the mis-guided employment support policies.

The several industrial policy liberalisations made during the last one decade with a view to encouraging exports is indeed an acceptance of the fact that the nation's

33. Government of India, Report of the Committee on Export Strategy for the Eighties, op. cit., p. 99.

export growth was constrained by several policy induced distortions in the industrial sector. It should, however, be noted that despite the realisation of this fact, a piece-meal approach has been taken for the much needed policy changes and for such changes that could have been brought about by one bold stroke, a very long time is taken. On the other hand, several developing countries which have responded to the environmental changes swiftly have leaped forward and as a result India has lagged very much behind.

2.2.5. Effects of Other Policies

The fiscal and monetary policies have had unfavourable effects on the exports. Bhagwati and Desai have noted³⁴ the hampering effect of excise and customs duties on the exports of several traditional through most of 1950s, besides the adverse effects of the export controls.

Despite a high priority being accorded to the export sector, fiscal and monetary policies continue to hamper exports. Further, there have been instances of State Governments defeating the Central Government's measures to reduce the fiscal burden on the export sector.

34. Jagdish Bagwati and Padma Desai, op. cit., pp.378-9.

Export of some commodities have suffered due to deliberate attempts to increase their domestic demand. For example, the Coffee Board actively encouraged the domestic consumption of coffee through promotional campaigns.³⁵ Similarly, the Spices Board has been encouraging more domestic consumption of cardamom even as the supply constraints affect export.

2.2.6. Lack of Integrated Approach

Some of the policy distortions are the result of the absence of an integrated view of the development potentials and development objectives and a long term strategy based on such an integrated approach. Needless to say, absence of proper environmental analysis and definite objectives and policy directions are the crux of the problem. Had there been a realistic assessment of the overall effect of modernisation and economically efficient development of a sector on export earnings, employment, income generation etc., the development of several sectors would not have been made to suffer by such policies as reservation for small scale sector, import controls, size and growth restrictions etc. A proper understanding of the multiple

35. ibid., p. 380.

benefits of development of a sector would lead to formulation of comprehensive and integrated development plans for the realisation of multiple benefits. Such an integrated development strategy would avoid wasteful fragmentation of development efforts and distortions. Support to export by such a development strategy would give more respectability to export development because of the realisation and appreciation of other socio-economic benefits. For example, an understanding of the effects of value added exports on employment and income generation as well as higher foreign exchange earnings would lead to due attention to the development of such exports. However, such a comprehensive and integrated view of the development benefits was not always present under Indian planning. For example, the objective of fisheries development according to the First Plan document was to improve the diet of the people. There was not any mention of either the tremendous employment potential or the export potential of the fisheries sector. The Second Plan expanded the fisheries programme " with a view to increasing the production and availability of fish and fisheries product". If the planners had realised the employment and export potentials of the fisheries sector, development of this sector would have been given more importance and its level of development and contribution to the nation, including foreign exchange, now might have been much better.

The long list of items still in the Schedule I to the Export Control Order shows that export of a number of commodities is banned or subject to quantitative restrictions due to supply limitations and some of these commodities reflect our failure in expanding the supply of exportables.

2.2.7. Problem Recognition and Action Lags

The role of Industrialisation in India's economic development had been well recognised even much before the Independence. An Industrial Policy Resolution was made shortly after the attainment of Independence and it was reformulated in 1956. However, no such enthusiasm was shown to deviate from the colonial trade regime and to formulate a comprehensive export development strategy. It was only in 1970, about two decades after the launching of the development planning and 22 years after making the first Industrial Policy Resolution, that the Government of India made an Export Policy Resolution, despite facing severe problems like stagnant export earnings and foreign exchange crisis (which led to the devaluation of the rupee in June 1966 by 36.5 per cent) and despite the fact that the Import and Export Policy Committee (Mudaliar Committee), 1961, and several experts had pointed out the need for active export promotion.

It may also be noted that despite the identification of the thrust sectors, no major thrust has been made in most cases for their proper development. For example, although marine products is one of the thrust sectors, a large part of the fishery resources of India's vast Exclusive Economic Zone remains unexploited and therefore wasted and progress made in the field of culture fisheries is rather poor. Deep-sea fishing remains a peripheral activity. Although the original target of the Seventh Plan was a fleet of 500 deep sea fishing vessels, to be introduced during the Plan, during the mid-term review this was reduced to 350. Yet, the achievement was too poor even in comparison with this revised target. Fish production seems to have more or less stagnated in recent years and India has been relegated to the third position in the export of shrimps to Japan, after being the top exporter for over a decade till 1985. It has been rightly pointed out that

the agreement recently entered into by a Japanese Company with an Indian private sector concern for producing surimi (a paste made from fresh seafood, and used by various consumer product processing units) with a 100 per cent buy back arrangement has once more brought to the fore the lack of development of the marine products sector

in the country. The Japanese have found after extensive studies that some of the Indian fish varieties are very good for the manufacture of surimi, the world trade in which is now estimated to have reached about Rs.2600 crores.³⁶

That the initiative for this should have come from the foreign buyer is indeed indicative of the lack of a real thrust in the thrust sector.

Absence of innovativeness is, undoubtedly, one of the very important factors that has affected India's position in the competitive world. One of the major failures of India has been in this respect. The maximum we have aimed at has been to follow the trend seen elsewhere. Even in following the trend we often lag very much behind. This led to the loss of India's market position in several traditional exports and to the unsatisfactory performance of several non-traditionals. The tardiness in the progress of value added exports is a reflection of this fact.

36. Editorial, "Where is the thrust", The Economic Times, 20-10-1987.

Value added exports help better utilisation of domestic resources and maximise export earnings. As the Tandon Committee observes, the value of exports is of greater importance than volume; the former means more foreign exchange earned while the latter is a loss of inputs and physical resources, including some that may have been imported.³⁷ There is considerable scope for increasing our export earnings from spices and certain other agricultural products, marine products, leather etc. through value addition. Our failure to market many products in consumer packs, under our brand names, to foreign consumers has caused huge loss in foreign exchange earning. Several products, unprocessed, semi-processed or processed, exported from India in bulk are reprocessed or repacked by foreign firms, mostly in developed countries, and sold in consumer packs under their own brand names. To establish a hold over the foreign market and to get better prices for our products, we must have an effective strategy to get over this problem of our 'faceless presence' in the foreign market.

Progress in this direction, however, has been very slow. For example, packing shrimp under the IQF form,

37. Government of India, Report of the Committee on Export Strategy for the Eighties, op. cit., p. 97.

which fetches much better price, was introduced long ago; but only 16 plants have so far been set up in India for exporting IQF shrimp and in 1987-88 export of this item was worth only about Rs. 21 crores.

The Task Force on Spices has observed³⁸ that India has been very traditional in its approach to export of spices. With the progress of time and development of the industry and improved standard of living, India as the largest spice producing country in the world failed to ensure that this development is extended into the field of spices. Although India has been regarded as the world leader in tea, "in product research and formulation we have played virtually no role -instant tea, tea bags, tea drinks have been developed abroad by the consuming countries. In fact tea chemistry is a subject that our research barely touched".³⁹

2.3. Major Problems of India's Export Sector

Several problems of India's export sector have been indicated, explicitly or implicitly, in the preceding pages. The following pages of this chapter recapitulate the major problems more specifically.

38. Task Force on Spices, Report of the Task Force on Spices (Cochin: The Spices Export Promotion Council, 1982), p.54.

39. Government of India, Report of the Committee on Export Strategy for the Eighties, op. cit., p.33.

2.3.1. High Costs

In a large number of cases, high domestic cost is an inhibiting factor. This problem has been succinctly stated by Abid Hussain Committee:

India is often at a disadvantage vis-a-vis competing countries because its costs of production, hence export prices, are higher than in competing countries, not only because of the higher prices of importable and non-traded inputs, or because of time and cost over-runs implicit in managerial inefficiency, but also because of much lower levels of productivity, all of which stem from the aforesaid problems.⁴⁰

Reference has already been made, in the preceding section, to the high costs and poor quality of inputs and technological backwardness. Besides the material costs, certain other costs are also very high in India. For example, compared to the interest rates on export finance of 6 per cent in the South East Asian Countries, 5 per cent and 3 per cent in Pakistan,⁴¹ the interest on pre-shipment finance in India is 7.5 per cent and above. (This was 9.5 per cent and above earlier) Further, the bank charges in

40. Government of India, Report of the Committee on Trade Policies, op. cit., p. 15.

41. FICCI, Seminar on National Policy for Export (New Delhi: FICCI, 1988) p. 20.

India worked out to nearly 2 per cent⁴² compared to 1 per cent in countries like Japan and Republic of Korea.⁴³ It is estimated that interest rates alone constitute nearly 15 per cent of the cost of production in India.⁴⁴

Similarly, the port charges in India are stated to be three to four times higher than those of Colombo, Hong Kong, Singapore and South Korea. The shipping freight rates, which presently work out to our disadvantage when compared with other competing countries, have to be restructured and made comparable.⁴⁵

Supply bottlenecks also tend to increase the costs in India. For example, "industry in Japan have stocks for an average of a few hours to two weeks, while India has indigenous stocks of 3-4 months and imported stocks of 9 months in our factories."⁴⁶

42. FICCI, National Convention on Exports (New Delhi: FICCI, 1989), p. 19.

43. FICCI, Seminar on National Policy for Export, op. cit., p. 20.

44. ibid., p. 20.

45. ibid., p. 20.

46. T.A.S. Balagopal, Export Management (Bombay: Himalaya Publishing House, 1986) p. 113.

Technological factors and low productivity also contribute to high cost of production in India. It has been pointed out that productivity in resource use

in a large number of export industries is still very low compared to the levels observed in many other developing and developed countries. Analysis of productivity, measured as value added per unit of labour, for select countries brings out that productivity levels in India are way behind those in many developed and developing countries. Even with regard to productivity of traditional exports, our productivity performance is not satisfactory. The growth rate of productivity in India is also lower than that in many other countries. Further, the advantages of the economies of scale and ability of bulk supplies are not available to the Indian exporters.

Productivity performance is linked to the issue of technology and management. Our policy towards technology has been somewhat lukewarm in encouraging the adoption of modern technology and technological innovations. Our traditional export sectors of textiles and jute have already suffered a lot due to lack of modernisation, whereas many other competing countries have made rapid strides in this regard. Product

development and product adaptation, research on new products and product diversification have also made inadequate progress.⁴⁷

2.3.2. Poor Quality Image

India has a very poor quality image abroad. The following remark by one of India's representatives abroad has been quoted in the Tandon Committee Report:

we have great scope for our exports; I can sell anything; if I am told to sell mud, I can; but I know it will be full of stone is indeed a reflection on our quality image. The Tandon Committee observes that Japan, Korea, and now China, on the other hand, are frequently quoted abroad as examples of dependable quality of an image sedulously fostered.⁴⁸

Despite the measures taken under the Exports (Quality Control and Inspection) Act and other laws, our exports continue to suffer because of the quality problem. Occasional black-listing by the U.S. of shrimp and pepper exports from India is a manifestation of the inadequacy of

47. V.K. Panchamukhi, "Foreign Trade and Trade Policies" in P.R. Brahmananda and V.R. Panchamukhi, op. cit., p. 505.

48. Government of India, Report of the Committee on Export Strategy for the Eighties, op. cit., p. 84.

the quality control and preshipment inspection system in India. Even the credibility of this system is sometimes suspected abroad.

Poor quality/inadequacy of inputs, technology and facilities affect the quality. On several instances, carelessness or lack of commitment on the part of the exporters are also responsible. Adulteration and duping are also not uncommon. There is a general impression that a proper export culture is lacking in India.

2.3.3. Unreliability

Besides quality, Indian exporters have been regarded as unreliable on certain other factors.

A very important black mark on the Indian exporters is reneging- a term used in the USA to refer to going back on a contract and refusing to fulfil it on its original terms. The Tandon Committee describes the major problems arising from reneging as follows:⁴⁹

49. Government of India, Report of the Committee on Export Strategy for the Eighties, op. cit., p.48.

First, the delay in delivery may put the importer in exactly the position of a non-delivery, because it cannot go into his own or his buyer's production at the appointed time while the exporter may plead, sometimes truthfully and sometimes not, shortages of raw materials, power, rail, port and strikes, the importer has no recourse.

Second, the exporter may even ask to revise the price upwards, if he has to have his contracts endorsed by an Indian authority, say, the Jute Commissioner, because the delivery has been delayed beyond a stipulated period. The authority will take note of rising market, which, while it suits the exporter, embraces the importer because he may have a back-to-back contract with his buyers.

Third, while importers fully accept a government's right to impose a duty of any magnitude on contracts entered into after the date of announcement, they sotto voce, and with surprising vehemence and emotion, oppose the retrospective effect of an export duty.

Then, there are cases of deliberate defaults by those small exporters who in their over-optimism will accept commitments far beyond their capacity to implement. To the buyer there is no redress except a lesson learned the hard way.

Indian exporters have been regarded as unreliable also because of their inability to provide prompt after-sales service. In this respect, the

Indian export sector cannot be compared with that of its competitors in Japan, South Korea and Taiwan, for comparisons with these countries do not hold much relevance. An exporter in these countries is able to replace a defective consignment free of cost and without taking much time. If a sensitive part of a plant or equipment exported by these countries goes out of order rendering the production activity at stand-still and an intimation through a telephone or telex is received by them, by the next available flight their technicians reach the scene to rectify the defect or remove the complaint. It is the prompt response or after-sales service that projects image of the supplying country for generating additional business.⁵⁰

In sharp contrast,

within the framework of our policies and procedural formalities a quick response for replacing a damaged or defective consignment

50. M.L. Varma, Foreign Trade Management in India (New Delhi: Vikas Publishing House Pvt. Ltd., 1988), p.295.

or for providing a prompt after-sales-service more often than not remains a far fetched idea In uncoordinated approach among different concerned agencies, the essence of urgency and time, so essential in an export activity, is lost sight of when it is handled in a routine or casual manner.⁵¹

The Tandon Committee remarks:

unreliable quality and deliveries to importers abroad, with finely balanced production and sales schedules, can prove as embarrassing as non-delivery. The reasons of power, raw materials, transport and shipping, strikes and port delay; to which we can add those we do not admit, poor production planning; over-optimistic acceptance of orders against an inadequate supply base; but endemic and acceptable as these factors may be to our buyers at home, they make little sense to an importer, who naturally compares us with small totally dependable countries of no comparable resource endowments, the Korea and the Taiwan.⁵²

2.3.4. Supply Problems

A serious drawback of the Indian export sector is its inability to provide continuous and smooth supply in adequate

51. ibid., p. 296

52. Government of India, Report of the Committee on Export Strategy for the Eighties, op. cit., p. 85.

quantities in respect of several products. The problem is that

much of the exporting is the result of the residual approach rather than conscious effort of producing for export. The tendency for exporting what we produce rather than producing for export still continues to characterise the export behaviour.⁵³

The Committee on Export Strategy for 1980s has observed⁵⁴ that the "stop-go" exports are considered abroad as causing much avoidable damage to the Indian export effort; one which can be avoided through a careful planning of supplies- where possible through buffer stocks- in the case of a new product and some sacrifice by domestic consumer in an unforeseen shortage; and a permissiveness towards importers with valid contracts for fortuitous gains.

2.3.5. Faceless presence

Although India is an important supplier of several commodities in foreign markets, her presence in these markets is faceless in the sense that the consumers do not know that these commodities are Indian. Major export items of India

53. V.R. Panchamukhi, op. cit., p. 504.

54. Government of India, Report of the Committee on Export Strategy for the Eighties, op. cit., p. 94.

like seafood, leather manufactures, spices etc., have, in many cases, a faceless presence in foreign markets. Although these exports may undergo further processing or repacking in many cases, in several cases the Indian exports are sold in the foreign markets in the same condition as they are exported out but under foreign brand names. It has also been found that when the product carries a foreign brand name sometimes it fetches a much higher price than the same product with an Indian name.

This is indeed a vicious circle. The poor quality image of the Indian products, many a time apparent than real, makes it difficult to sell under Indian brand names. The faceless presence, on the other hand, perpetuates the problem. In fact most bulk importers of Indian goods want this situation to be perpetuated as this enables them to hold control over the market while the exporters being at the mercy of the foreign traders loose bargaining power.

The failure of India to keep pace with the market dynamics has also contributed to the perpetuation of this situation. For example, the failure of India to offer spices in consumer packs and in product forms the consumers want provided an opportunity for foreign traders to import

spices in bulk and resell them in suitable forms, and thus keep the market under their control.

The faceless presence is also the result of the failure of the exporters and export promotion agencies in India to build up an image for Indian goods abroad.

2.3.6. Infrastructural Bottlenecks

The following observations made by the National Convention on Exports organised by the Federation of Indian Chamber of Commerce and Industry is indeed a recapitulation of the undisputably held view of the infrastructural situation in India.

Infrastructural shortages such as energy shortages, inadequate and unreliable transport and communication facilities hinder growth in exports. Power shortages and breakdowns disrupt production schedules, increase cost and adversely affect timely shipments. The continental size of the country necessitates that the inland haulage of export cargo as also its free shipment at ports is done efficiently and at reasonable cost. Exports also suffer for want of efficient and economic communication facilities. Indeed, with advancements in communication and computer technologies, the very complexion of international trading has

changed with more and more of cargo documentation and banking transactions getting into the electronic media. The Indian exporter, however, has to communicate through inefficient and relatively outdated telecommunication network.⁵⁵

Improving the transportation system, including the expansion and modernisation of the port facilities, rationalisation of the charges, improving the procedural system etc. are very much essential for the development of the export sector. However, the administrative lethargy continues to plague the Indian scenario causing heavy damage to export development. The problems faced by the garment exporters is a case in point. It has been reported⁵⁶ that cargo worth more than Rs.50 crores had piled up at Bombay airport and warehouses of exporters for non availability of air cargo space. This is in addition to the huge backlog of cargo at Delhi and other airports in the country. As a result, foreign buyers have threatened to cancel orders which were meant for retailing during Easter season in Europe and USA. It may be noted that this situation reflects administrative failure despite the fact that demands of cargo space could be forecast well in advance.

55. FICCI, National Convention on Exports, op. cit., p. 21.

56. Special correspondent, "Cancellation of orders feared", The Economic Times, 9-3-1990, p. 5.

Cargo space had been a perennial problem and the Apparel Export Promotion Council (AEPC) had given air cargo projections for 1990 as early as June 1989 in view of the past experience of backlog and congestion at air ports during 1987 and 1988. Infrastructural bottlenecks have been common and even after four decades of development planning, exports continue to suffer because of this.

2.3.7. Structural Weakness

A major handicap of the Indian export sector is its structural weakness. Two of the important factors responsible for this, viz., low efficiency and productivity in resource use and poor technology have already been described. Another very important factor is the absence of a systems approach to the process of management, marketing, information, planning and decision making, reference to which are made in several places in this thesis.

It is important to note that

India's exports do not pick up in periods of boom conditions in the world economy to the same extent as the exports of many other competitors. On the other hand, India is quick to pick up sluggishness in exports in response to sluggishness in world trade much more quickly than other exporters. This asymmetry in the

response of the export activity to world market conditions is a reflection of structural weakness of the export sector as a whole.⁵⁷

2.3.8. Uncertainties, Procedural Complexities and Institutional Rigidities

One of the defects of our trade policy regime has been the uncertainty about future policies, incentive schemes etc. The Alexander Committee has recommended that in order to provide a suitable framework for production and export planning, the trade policy should be stable for a period of at least three years. Accordingly, since 1985, the Import-Export Policy has been given a three year span. A stable policy does not ofcourse preclude the need to make modifications as and when necessary. One may, however, be baffled to hear that as many as 78 amendments to the Exim Policy for 1989-91 was effected within seven months of its announcement. According to the Government sources, all these amendments were made to suit the industries' convenience, after several of them had represented to the Union Ministry of Commerce. The mute question, then, is would not an open minded discussion with the industries before framing

57. V.R. Panchamukhi, op. cit., p. 505.

the Policy have made the policy a more pragmatic one, avoiding the need for such frequent changes? Is it not a reflection of the carelessness with which an important policy is formulated and the inherent weaknesses of a policy so framed? The Exim Policy for 1988-91 continued the basic tenets of the previous policy and had only carried further forward the principles of the previous policy announced by V.P. Singh. It is an irony that the Government under the Prime Ministership of V.P. Singh who, in 1985, heralded the era of long term Exim Policy with a declaration that this was made "to impart continuity and stability in Import-Export policy" terminated the Exim Policy for 1988-91 one year prior to the originally contemplated date and came out with a new three-year policy. And the government which announced the new policy lasted only months since then. What sense, then, did the policy make as far as the objective of continuity and stability was concerned, although one did not expect any radical departure from the past by the new administrators, many of whom were part of the old regime either in the recent or long past.

Economic policy changes, often apparent than real, when 'new' government comes to power has become usual. Several of these changes are indeed called in just for the sake of it rather than called for. The termination of the Fifth Five Year Plan at the end of the fourth year and announcement of a 'new' Industrial Policy by the Janatha Government; and the termination of the Five Year Plan formulated by the Janatha Government at the end of the second year and announcing of a 'new' Industrial Policy by the Congress Government which succeeded the Janatha Government are examples.

There have been reports of loss of exports worth hundreds of crores of rupees due to the problem of inter-departmental coordination. The Union Commerce Minister has admitted that inter-ministerial wranglings and resultant inordinate delay in taking crucial decisions are hampering export efforts.⁵⁸ Similarly, it has been reported that the inordinate delays in the disbursement of cash incentives, ranging between 15 and 40 per cent of the f.o.b. values, out of the International Price Reimbursement Scheme for Steel (IPRS) was hampering engineering goods exports.⁵⁹

58. I.C. Singh, "Export efforts hit", The Economic Times, 19-12-1989, p. 1.

59. Special correspondent, "Engineering export hit by delay in disbursing incentives", The Economic Times, 26-10-1989, p. 4.

All these happen in a country which is said to be giving exports one of the high national priorities and which is facing serious foreign exchange crisis.

The procedural complexities of the Indian trade regime have been undisputably acknowledged. The Government appointed the Committee on Import-Export Policies and Procedures (Alexander Committee) which in its Report (1978) made a number of recommendations for improving the regime. The Tandon Committee and the Abid Hussain Committee reports too have suggested rationalisation and simplifications of policies and procedures. However, still a lot remains to be done in this respect. It appears that the Indian bureaucrats have a bias against decontrol and procedural simplifications. Prime Minister Rajiv Gandhi confessed: "We did a lot of decontrol right in 1985. Somewhere in the middle of 1986 we discovered that although we had done everything, they (the bureaucrats) had put in the little print at the bottom!"⁶⁰ The Import-Export Passbook scheme was introduced with a view to simplifying procedures. However, some exporters opined that this scheme was more problematic than the Advance Licensing Scheme against which it was introduced. At the 8th Indian Seafood Trade Fair (February 11-13, 1989), the

60. Quoted in Business World, December 7-20, 1988, p. 1.

then Union Minister Jagadish Titler hailed the establishment of the Agricultural Products and Processed Foods Export Development Authority as a step to help boost the export of agricultural products and processed food. However, some of the exporters expressed the fear that it may become one more ring in the chain of hurdles. There is a general feeling that not only that there are too many controls and overlapping of policies but also " the principle of Indian Policy is to elaborate rules (and exceptions) to them, which are not only detailed and specific, but also subject to wide discretion."⁶¹ These are vindicative of the structural weaknesses of the institutional system in India.

Referring to the problem of export documentation and formalities, the Tandon Committee observed that

most of the existing procedural and documentation formalities prescribed by different authorities have been developed to suit their own individual requirements without much regard to the repercussions they might have on the total export activity. Rigourously practiced over the years, these formalities seem to have become an end in themselves than the means to an end.

61. Wolf, op. cit., p. iii.

All this has been responsible for a maze of documents and related paper work, overlapping in detail, and causing much delay and inconvenience in the movement of goods and also in the disbursement of incentives- especially to the small exporter. The situation is highly anomalous in the context of the growing requirements of our country. When the export effort of the country is being intensified, it is necessary that the documentation and procedural formalities related to export activity are also streamlined and simplified so that they do not constitute impediments to the growth of the country's export trade.⁶²

The complexity of export procedures is indicated by the fact that a company has to go to 18 different agencies to obtain export clearance. According to the estimates of the Confederation of Engineering Industries (CEI), a single company alone would save 5,700 man hours a year, worth Rs. 1.1 lakh in money terms, if documents and procedures were simplified.⁶³

Inordinate delays are often reported even in respect of realising the incentives. The FICCI Seminar on National

62. Government of India, Report of the Committee on Export Strategy for the Eighties, op. cit. p. 289.

63. I.C. Singhal, "Nehru embarks on curbing red tape", The Economic Times, 8-1-1990, p.1.

Policy for Export observed that "Indian exporters genuinely feel that instead of more incentives, a fast clearance system be introduced under which the incentives already available should reach them quickly and effortlessly".⁶⁴

The FICCI made a concrete suggestion to simplify the export documentation and to introduce just two, comprehensive, documents in the place of the many documents which exist today. It is heartening to note that the Ministries of Commerce and Surface Transport have agreed to reduce the number of export documents from 11 to 2 (Commerce Ministry from seven to one and Surface Transport Ministry from four to one).

2.3.9. Inadequacy of Trade Information System

An efficient Trade Information System is essential for success in the dynamic global market. But,

our marketing infrastructure as well as marketing techniques are neither effective nor efficient. We do not have any machinery to keep prompt track of business information overseas, as is done by JETRO in Japan, KOTRA in Korea, CETDC in Hong Kong and

64. FICCI, Seminar on National Policy for Export, op. cit., p. 19.

STDB in Singapore with wide network of offices abroad. These organisations have evolved an efficient system which help them to get information pertaining to tenders and the like much before these are released officially. In India, we get these informations, at times, after the expiry date. India has, no doubt, a plethora of organisations- governmental, semi-governmental as also non-governmental engaged in this task in one way or other. Yet we do not have an easy access to market intelligence and information.⁶⁵

The Tandon Committee has pointed out that our exports often

miss the opportunity of participating in global tenders because of late receipt of tenders, sometimes, changes in policies and procedures in overseas countries do not reach them in time ... the information is not available on a continuing basis from any source.⁶⁶

The Task Force on Export Services constituted in June 1978 by the Government of India and the Abid Hussain Committee also drew attention to this problem. However, the problem still continues.

65. FICCI, Seminar on National Policy for Export, op. cit., p. 19.

66. Government of India, Report of the Committee on Export, Strategy for the Eighties, op. cit., p. 288.

Chapter III

EXPORT DEVELOPMENT MEASURES IN INDIA

Government have taken several measures to develop foreign trade in accordance with the national development policy. This chapter reviews important government measures to develop the export sector in general and the marine products exports in particular.

3.1. Import-Export Policy

The import-export policy, an important component of the strategic policy framework for the country's economic development, plays a very important role in determining the nature and development of the foreign trade. The objectives of the foreign trade regulation are expressed in the Exim policy.

As the persistent trade gap has been one of the major concerns, it is but natural that export promotion and import substitution have been among the major focuses of the Exim policy. Serving the essential consumption and development requirements of the economy has been the other major objective of the Exim policy. Although the wordings of the statement of the objectives have been different

from the Import-Export Policy Statement for one period to another, the basic objectives have been what we have mentioned above.

The Import-Export Policy for 1990-'93 has listed down the following as the main objectives:

- (1) To encourage rapid and sustained export growth, including export of services, with special emphasis on exports which generate higher net foreign exchange earnings;
- (2) to facilitate availability of necessary imported inputs for sustaining industrial growth, including essential imported capital goods for modernisation and technological upgradation;
- (3) to simplify and streamline procedures for import licensing and export promotion;
- (4) to support recognised indigenous R and D institutions for building up their scientific and technological capability for technology absorption and development; and
- (5) to promote efficient import substitution and self-reliance.

Until 1985, the Exim policy had been annual. With a view to imparting stability and continuity to the policy, it was decided to give a three-year validity for the Exim

policy and the first long term policy was announced in 1985. However, following political changes of the Government, the policy announced for 1988-'91 was terminated in 1990 and a new policy for 1990-'93 was announced. The new policy, however, was not basically different from the previous policy. In fact, the new policy carried further forward the main thread of the old policy.

An important feature of the Exim Policy, particularly since 1985, has been import liberalisation with a view to facilitating technological upgradation and larger production, both for the domestic and foreign markets. The approach has been described as short-term import growth to facilitate long term-export growth. There have been severe criticisms from some corners that the import liberalisation has been boosting the import bill and causing problems for import competing domestic industries. It has, however, been pointed out that the liberalisation has very significantly contributed to the recent acceleration of export growth and has made the domestic economy more competitive.

Procedural simplification has also received considerable attention in recent years.

Economic policy changes and other measures announced in early July 1991 have made the trade regime a more liberal one.

3.2. Regulation of Foreign Trade

Government of India have enormous powers of control over the foreign trade of the nation under the Imports and Exports (Control) Act, 1947; Foreign Exchange Regulation Act, 1973; Exports (Quality Control and Inspection) Act, 1963, and certain other laws like Antiquities and Art Treasures Act, 1972; Indian Coffee Act, 1942; and the Tea Act, 1953, pertaining to specific commodities.

The Government endeavours to promote exports to the maximum extent but in such a manner that the economy of the country is not affected by unregulated exports of items essentially needed within the country. Export control is, therefore, exercised in respect of a limited number of items whose supply position demands that their exports should be regulated in the larger interests of the country.

The Export (Quality Control and Inspection) Act empowers the Government to ensure that only goods of proper quality are exported.

3.3. Organisational Setup

Government have established/sponsored a number of organisations to provide different types of assistance to export sector. While some of these organisations are product specific, others are general. Apart from the organisations set up exclusively for export promotion, there are also a number of other organisations which assist the export sector in different ways.

Assistance provided by these organisations cover areas such as identification of markets and market development; identification of products with export potential and product development; financing of foreign trade; education and training in export marketing; export intelligence, including research and collection and dissemination of information; insurance covers against export risks; organisation of and participation in trade fairs and exhibitions; packaging; pre-shipment inspection and quality control; export documentation and procedures; and so on.

3.4. Export Promotion

Government of India has taken several measures with the specific objective of encouraging exports. This section examines the rationale of export promotion and provides a brief account of the important export promotion measures.

3.4.1. Rationale of Export Promotion

The Abid Hussain Committee points out that:

it is possible to consider the rationale for export promotion in the Indian context at two levels. At a macro-economic level, it is important to recognise that the structure of tariffs and the import licensing system may discriminate against the export sector for two reasons. First, in so far as exporters have to pay higher than world prices for imported or domestically produced importable inputs, they are placed at a disadvantage vis-a-vis their competitors; in the extreme, such a tax on inputs without any compensation on the output would mean that the effective protection for the export activities is negative. Second, given the structure of tariffs and the degree of compensation implicit in the whole range of export promotion policies, the effective exchange rate for import-competing production is likely to be significantly higher than the effective exchange rate for export production, which means that the relative profitability of producing exportables is lower than that of producing importables.

At a micro level, the rationale for export promotion is also two-fold. First, in so far as

the cost of traded and non-traded inputs for firms engaged in exports is higher than world prices, compensation in one form or another is necessary to place Indian firms at a par with their competitors in world markets; such disadvantages are exogenous to any firm that ventures into exports. Second, there are disadvantages that are endogenous to the firms which are infants in export marketing and may be reluctant to undertake the initial investment necessary to open up new markets for exports; in the early stages it may be necessary to provide assistance to support such investment, which should also give rise to external economies that might benefit the export trade of the country as a whole. Therefore, it would appear that, in the Indian context, export promotion policies need to perform two roles, that of providing compensation on the one hand and that of providing assistance to remove disincentives on the other. While the former would be necessary on a sustained basis to neutralise disadvantages so long as they are present, the latter would be necessary on a selective basis for a limited period of time.¹

1. Government of India, Report of the Committee on Trade Policies, op. cit., pp. 21-22.

It can be inferred from the above that the export promotion regime should:

- (i) compensate the exporters for the high domestic cost of production,
- (ii) provide necessary assistance to the new and infant exporters to develop the export business, and
- (iii) increase the relative profitability of the export business vis-a-vis the domestic business.

3.4.2. A Brief Review of the Export Promotion Measures through the Plans

As pointed out in the previous chapter, in the early years of planning the Indian export policy was characterised by indifference and pessimistic neglect. However, the increasing trade deficit during the Second Plan pointed to the need to promote exports and since the middle of the Second Plan period, a series of measures had been initiated with the object of stepping up exports. These included organisational changes, increased facilities and incentives and diversification of trade. However, as the Third Plan document observes, "these measures were not adequate in relation to the underlying factors inhibiting exports. One of the main drawbacks was that the export

promotion programme was not regarded as an integral part of the country's development effort under the Five Year Plans".² It was only since the Third Plan that export promotion received considerable attention.

During the Third Plan, the institutional framework for promoting exports was broadened and strengthened and certain fiscal incentives like drawback of import duty and refund of excise duty and income tax concession were introduced. A major factor was the operation of special export promotion scheme providing import entitlement against exports in respect of a number of manufactured and processed products. A limited scheme of direct subsidies for about 22 products was also operated to promote exports of non-traditional products. Another important aspect of the trade policy during the Third Plan was the importance given to diversification, both country-wise and product-wise, of the foreign trade.

It is pointed out that despite their proliferation, the incentive schemes implemented during the Third Plan period "failed not only to generate self sustaining

2. Planning Commission, Third Five Year Plan (New Delhi: Government of India) p. 137.

exports but also generated widespread manipulations in the form of over-invoicing of exports, export of shoddy goods, besides the obvious distortions in the pattern of resource allocation in the country".³

A major development soon after the Third Plan was the devaluation of the Indian rupee (on June 6, 1966) by 36.5 per cent which was resorted to partly to obviate the need for administering a system of export incentive schemes which became increasingly complex and partly due to the failure of the schemes to generate self sustaining exports."⁴

With the devaluation, export promotion schemes like import entitlement and cash subsidy were withdrawn (but were reintroduced later, in modified form) and the import and industrial policies were liberalised with a view to removing bottlenecks in production.

Subsequent to the devaluation, further modifications, adjustments and extensions in export promotion policies were made. These took the form mainly of adjustments in

3. S.K. Verghese, "Export Assistance Policies and Export Performance of India in the Seventies", Economic and Political Weekly, Annual Number, February 1978, p. 360.

4. ibid.

export duties and in cash assistance, modifications of import facilities for exporting units and industries and strengthening of credit arrangements for exports.

Realising the country's potential for achieving a rising level of exports and recognising the need for the adoption of appropriate policies and measures designed to promote investment in promising sectors to generate exportable surplus and the need for providing adequate facilities and incentives to promote the growth of the export trade, an Export Policy Resolution was announced by the Government of India in 1970.

The Resolution rightly observed that:

a steady increase in export earnings is dependent on the continuous development and expansion of export oriented production. The aim of such development should be the promotion of economic efficiency, diversification of production and better utilisation of skilled and unskilled manpower. The development of the economy's export sector has a vital role to play in the achievement of the Plan's social and economic goals. The needs of this sector should, therefore, receive a very high priority.

The Resolution underscored the need for exploiting the export potentials of industrial, agricultural and

horticultural sectors through an appropriate development of the export oriented segments of these sectors. The need for harnessing our marine, forest and mineral wealth to augment export earnings has also been stressed.

While recognising the need for the diversification of industrial production and improvement in economic efficiency, the Resolution felt that the government should provide necessary assistance to build up efficient production and, in the meanwhile, endeavour to compensate the exporters for the temporary handicaps that stem from transitional difficulties inherent in a developing economy and to alleviate the disadvantages arising from our domestic fiscal policies or tariff barriers in importing countries. It was also pointed out that while rapid growth, compared to that envisaged in the non-traditional sector, could be expected in the traditional items of export, it would be the government's policy to promote measures to improve their competitiveness in the international market, to defend their unit value, and to improve, to the extent as possible, their export performance. Further, it was also announced that attention would be paid to modernising our marketing and promotional techniques and improving the efficiency of the exporting firms. The importance of ensuring quality and export marketing research were also highlighted.

In short, the Export Policy Resolution, 1970, presented with the hope that "the export effort will be viewed as one of the highest national commitments" reflected the government's resolve to expand, diversify and strengthen the domestic production base so as to generate more exportable surplus in a variety of sectors; to strengthen and develop the export marketing infrastructures; to develop overseas markets and to provide incentives to give a boost to the export sector.

It has been argued that

the policy decisions taken subsequently by the Government, their rapid implementation and the results achieved have amply proved that the policy has been adumbrated after a very careful study. This is evident from the rate of growth in the exports in the subsequent years.⁵

Between 1950-'51 and 1970-71, the average annual increase in exports was only 3 per cent whereas it was as high as 25.4 per cent between 1971-'72 and 1976-'77. Even though a part of this may be attributed to inflation, it is no mean achievement.

5. T.A.S. Balagopal, Export Management (Bombay: Himalaya Publishing House), p. 104.

With the burgeoning trade deficit since the emergence of the oil price hike in the early 1970s, export promotion assumed added importance and export promotion measures have been sought to be enlarged. These measures aim, in general, to expand and strengthen the export production base, diversify export markets and products, develop export markets, improve export marketing and export competitiveness and to give incentives for exports.

The rationale, efficacy and adequacy of different export promotion measures and their implementation have been subject to several criticisms. A number of committees including the Committee on Import-Export Policies and Procedures (Alexander Committee, 1978), Committee on Export Strategy for Eighties (Tandon Committee, 1980), Committee on Trade Policies (Abid Hussain Committee, 1984) and several committees on particular export promotion schemes or problems have critically examined trade policies, procedures, promotion schemes etc. and in the light of their recommendations efforts have been made to improve the system.

A number of measures have been taken in the eighties to promote exports. These include liberalisations of industrial and import policies to encourage production of

export goods, development of export processing zones, promotion of hundred per cent export oriented units, rationalisation and simplification schemes of export assistance and incentives etc.

During the Seventh Plan, efforts were made to identify sectors, industries and products which have a good export potential and to provide a suitable policy framework. Fourteen broad sectors were identified by the Government, in consultation with the export promotion councils and commodity boards, for making special thrusts in the overseas markets without minimising the importance of increased exports from other sectors as well. The fourteen thrust sectors include tea (especially in packaged and value added form); cereals (in particular wheat); processed foods (including fruits and juices, meat and meat products and fresh fruits and vegetables); marine products (especially in the value added form); iron ore; leather and leather manufactures; handicrafts and jewellery; capital goods and consumer durables, electronic goods and consumer software; basic chemicals; fabrics, piece goods and made-ups; ready made garments; woolen fabrics and knitwear; and, projects and services.

The following pages give a brief account of the important export promotion measures.

3.4.3. Export Promotion Measures

3.4.3.1. Incentives

Export incentives are a widely employed strategy of export promotion. The main aim of these incentives is to increase the profitability of export business.

Important export incentives in India include rebate of duties, cash compensatory support, income tax concession, interest subsidies, freight subsidy etc. It has been common to describe these as incentives. However, as the Abid Hussain Committee has observed, they are more a compensation for the comparative disadvantages faced by the Indian exporter than incentives.⁶ We give below a very brief account of these 'incentives' which serve the first rationale of export promotion mentioned earlier in this section, viz. to compensate the exporters for the high domestic costs.

3.4.3.1.1. Duty Exemption/Drawback

The scheme of duty exemption is designed to avoid the incidence of commodity taxes like excise duty and customs duty on the exports so as to make the exports more price competitive.

6. Government of India, Report of the Committee on Trade Policies, op. cit. p. 23.

This is a world-wide practice and the rationale is straight forward. Customs duties and excise duties on inputs raise the cost of production in export industries and thereby affect the competitiveness of exports. Therefore, exporters need to be compensated for the escalation in their costs attributable to such customs and excise duties.⁷

Duty exemption as an export promotion measure had its origin in India during the Second Plan. Over the years the scheme has been enlarged and modified.

The exporters are either exempted from the payment of duty while procuring inputs like raw materials and intermediates or, in cases where the duty is paid on the inputs, the duty paid is refunded. Thus, under the duty drawback system the exporters are reimbursed for tariff paid on the imported raw materials and intermediates and central excise duty on domestically procured inputs which enter into export production.

Because of a series of modifications to the import policy for registered exporters, particularly the introduction of the advance licensing system, exporters

7. ibid., p. 23.

can now make most of the import of inputs without payment of customs duty.

Eligible exporters are entitled to interest-free bank credit against the duty drawback applicable to them upto a period of 90 days or upto the time they realise the drawback, whichever is earlier. Similarly, with the application of MODVAT, a large number of products, covered by the MODVAT, can be exported in bond and in that event, the duty relief in the form of drawback would be restricted only to basic customs and auxiliary duties suffered, if any, by the inputs.

The Abid Hussain Committee has pointed out that the operation of the duty drawback system was suffering from the following problems:⁸

- (1) Delay in the disbursement of drawbacks.
- (2) The average industry rates were based on conservative estimates so much so that customs or excise duties paid were not entirely reimbursed.
- (3) There was a range of exports for which average industry rates were not fixed which meant that the exporters had to approach the Government for the fixation of average industry or specific brand rates which was inevitably time consuming.

8. ibid, p. 24.

- (4) Where the averages industry rates fixed by the Government were found to be less than the actual duty paid, the exporter could approach the Government for a specific brand rate only if it was established that average industry rate reimburses less than three-fourths of the duties paid on the imported or domestically produced inputs; the fixation of specific brand rates takes far too much time.
- (5) There was the problem of classification at the time of disbursement, because even though there are a large number of drawback rates, there was room for ambiguity in the interpretation of the category to which a particular export belonged.

The Abid Hussain Committee, therefore, recommended that the duty drawback system should be rationalised to solve the above problems. The Economic Administration Reforms Commission and the high powered committee appointed by the Government in November 1985 to review the working of the duty drawback system also recommended the rationalisation and simplification of the system. Consequently, some steps were taken by the Government in this direction. A quick payment of duty drawback scheme was introduced; higher drawback rates were fixed for a number of items with substantial export potential and all industry rates have been fixed for the first time for a number of items.

3.4.3.1.2. Cash Compensatory Support

One of the important export promotion schemes is the Market Development Assistance. An overwhelming proportion of the expenditure (90-95 per cent) under this is accounted for by the cash compensatory support (CCS) regime. The remaining part of the resources of the MDA is used to subsidise interest on export credit and to provide financial assistance for export promotion including grants-in-aid to approved organisations for export development.

Cash assistance for exports, which has subsequently been termed as cash compensatory support, was introduced in 1966. The stated objectives were to enable exporters to meet competition in foreign markets, to develop marketing competence and to neutralise disadvantages inherent in the existing stage of development of the economy. The main basis for the CCS scheme is to provide compensation for unrebated indirect taxes (on both final and intermediate stages of production) which enter into export production but are not refundable through Duty Drawback System.

The Alexander Committee has identified the following

three basic principles for cash assistance:⁹

- (1) CCS should fully compensate for the unrebated indirect taxes paid by the exporters on inputs which enter into export production.
- (2) Cash assistance should be such as to encourage the exporter in adopting adequate marketing strategies and to neutralise the disadvantages of freight etc. so as to be competitive in the international market.
- (3) The magnitude of cash assistance should be adequate to take care of the initial promotional costs in the case of new products and new markets.

The Alexander Committee has stated that these principles highlight the importance of the fact that export industry should make its production activity competitive on its own, after these three categories of disadvantages are taken care of. These principles also imply that even if the export industry is supplied all its inputs at competitive international prices, its

9. Government of India, Report of the Committee on Import-Export Policies and Procedures, op. cit., pp. 37-38.

disadvantages in regard to marketing and promotional efforts need to be compensated until the export of the particular product become a stable feature in the trade flow.

Thus, the cash compensatory support regime is designed to serve, as the Abid Hussain Committee perceives, two basic roles.¹⁰

First, it is a facility in so far it seeks to compensate for unrebated indirect taxes which are not reimbursed through the duty drawback system, and second, it is an assistance in so far it attempts to provide resources for product/market development.

The CCS rate was restricted to 25 per cent of the value added. CCS was admissible to deemed exports at the rate of 75 per cent of what was admissible on physical exports. Such supplies included supplies to IDA/IBRD financed by multilateral, bilateral external agencies and to the UNICEF for their aid programmes.

The CCS was suspended with effect from July 3, 1991, following the devaluation of the Rupee.

10. Government of India, Report of the Committee on Trade Policies, op. cit. p. 25.

3.4.3.1.3. Subsidies

Besides the subsidies involved in the CCS, the export sector has been granted several other subsidies.

Certain select items which are subject to quick changes in fashion, obsolescence or perishability are granted air freight subsidy.

A number of interest-subsidies reduce the interest on export credit. Under the Export Credit Subsidy Scheme introduced in 1968, subsidy at 1.5 per cent per annum is disbursed from the Market Development Assistance to commercial banks on export credit extended by them for specific periods.

With effect from August 1, 1986, the export credit interest subsidy to banks was stepped by the Reserve Bank of India from 1.5 to 3 per cent.

All India financial institutions viz., IDBI, ICICI and IFCI introduced a scheme to provide incentives to industrial concerns for improving their export performance under which a unit with export sales of 25 per cent or above in relation to its total sales of own manufactured goods were entitled for an interest rebate to the extent of 20 per cent of its interest payments on rupee loans, provided by these institutions on or after December 1, 1986.

Hundred per cent EOUs were also entitled to this scheme which was in operation till March 31, 1990.

Under a scheme introduced recently to promote exports of projects and consultancy, grant of 50 per cent subsidy for submission of tenders for overseas projects, subsidy for establishing consultancy offices abroad for a period of 5 years, and 10 per cent of project assistance for consultancy exports are provided.

3.4.3.1.4. Income Tax Concession

Besides the exemption/rebates of indirect taxes, a special fiscal treatment granted to exports is the income tax concession according to which earnings from exports are either partially exempted from income-tax or taxed at a lower rate. Such income tax rebates have been provided to exporters in India since the early 1960s.

Under Section 80 HHC of the Income Tax Act, one per cent of the f.o.b. value of exports and 5 per cent of the incremental export turnover as compared to the preceding year were deductible from taxable income. The Abid Hussain Committee opined that the incentive implicit in this export promotion measure was very small indeed. Deduction in respect of profits for exports under

Section 80 HHC has recently been liberalised to:

(a) 4 per cent of the net foreign exchange realisation;
and (b) 50 per cent of so much of the profits derived from exports of such goods or merchandise as exceeds the amount referred to in Clause (a), provided that the deduction under this sub-section shall not exceed the profits derived from the exports of such goods or merchandise.

3.4.3.1.5. Other Incentives:

Import Policy for Registered Exporters: In order to provide the export sector with access to importable inputs that enter into export production, at international prices, the import policy allows special facilities for registered exporters. The system of import replenishment (REP) licences, which are related to the f.o.b. value of exports, is for the most part, a facility in so far as it enables exporters to import inputs where the domestic substitutes are not adequate in terms of price, quality or delivery dates. It is also an incentive in so far as there is a premium on those REP licence which are transferable. The reforms announced by the Government in the trade policy on July 4, 1991, made the REP the principal instrument for export related imports and the rate has been raised to 30 per cent of the f.o.b. value. The new

REP scheme, which has been renamed as 'Exim scrip', is designed to give maximum incentive to exporters whose import intensity is low. It has been proposed that in due course the Exim scrip would be replaced with foreign exchange certificates which would be more easily tradable.

IPRS: The International Price Reimbursement Scheme (IPRS) has been designed to make available specified inputs to the exporters at international prices. The scheme which was initially applicable to steel was later extended to aluminium. It has been proposed to extend the scheme to other major raw materials of the export sector.

Awards: A number of awards have been instituted to encourage exports and to recognise excellence in exports. There are separate awards for different categories of exporters. Awards are given on the basis of certain specified criteria such as development of market for products which has not been exported previously, substantial increase in exports, successful introduction of new products, product development, successful break-through in foreign markets where conditions have been especially difficult etc.

References to some other incentives are made in the sub-section on Marketing Assistance.

3.4.3.2. Production Assistance/Facilities

Exports depend, inter alia, on exportable surplus and the quality and price of the goods. Government have, therefore, taken a number of measures to enlarge and strengthen the production base, to improve the productive efficiency and quality of products and to make the products more price competitive. Measures in these directions include making available raw materials and other inputs of required quality at reasonable prices; facilities to establish and expand productive capacity, including import of capital goods and technology; facilities to modernise production facilities; provision of infrastructure for the growth of export oriented industries etc. The important government measures related to export production are the following:

3.4.3.2.1. Policy Liberalisations

The general liberalisation in the industrial and import policies in recent years have been expected to increase and improve the production in the economy which might also help exports. Besides, special policy relaxations have been made to encourage export production. Capacity expansion exclusively for export production has been exempted from licensing. Further, large houses,

including those covered by the MRTP Act, are permitted to manufacture non-appendix I items on the basis of export obligation. They are also permitted to manufacture products reserved for the small scale sector if at least 60 per cent of the production will be exported and the location is in backward areas. According to an amendment to the MRTP Act in 1982, exports are excluded from the calculation of market dominance. Against definite export obligation, a higher share of foreign equity participation than normally allowed may also be permitted.

As stated earlier, fourteen thrust industries have been identified for export production. The debt-equity norm for thrust industries has been liberalised to 4:1 to finance projects in these thrust industries against the prevailing 2:1 ratio for other industries.

According to the trade policy reforms announced on July 4, 1991, all import licensing for capital goods and raw materials, except for a small negative list would be removed in three years.

3.4.3.2.2. Raw Materials and Intermediates

Government have designed schemes for easy import of raw materials and components for export production. Some

important domestically procured raw materials like steel and aluminium are made available to the engineering goods export industry at international prices.

3.4.3.2.3. Technology, Capital Goods etc.

Government have a comparatively liberal attitude towards import of technology, capital goods, etc. for export production. Import of components, spares and balancing equipment is also allowed subject to certain conditions. Eligible exporters may import technical designs, drawings and other documentation required by their supporting manufactures according to the Import-Export Policy. An important feature of the import policy in recent years has been the progressive liberalisation, particularly to support export production.

3.4.3.2.4. EPZs and EOUs

To give a boost to exports, export processing zones have been established in different parts of the country and a scheme of hundred per cent Export Oriented Units has been introduced. A number of facilities and incentives are available to units in the EPZs and to the 100 per cent EOUs.

3.4.3.3. Marketing Assistance

A number of steps have been taken to assist the exporters in their marketing effort. These include conducting, sponsoring or otherwise assisting market surveys and research; collection, storage and dissemination of marketing information; organising and facilitating participation in international trade fairs and exhibitions; credit and insurance facilities; release of foreign exchange for export marketing activities; assistance in export procedures; quality control and pre-shipment inspection; identifying markets and products with export potential; helping buyer-seller interaction etc.

Some of the schemes and facilities which assist export marketing are mentioned below:

3.4.3.3.1. Market Development Assistance

An important export promotion measure taken by the Government is institution of the Market Development Assistance (MDA). Assistance under the MDA is available for market and commodity researches; trade delegations and study teams; participation in trade fairs and exhibitions; establishment of offices and branches in foreign countries; and grants-in-aid to EPCs and other

approved organisations for export promotion. Interest on Export Credit by commercial banks and approved co-operative banks enjoy a subsidy of 1.5 per cent out of the MDA. Most of the MDA expenditure was absorbed by the CCS. The CCS helped the exporters to increase the price competitiveness of the Indian products in foreign markets.

3.4.3.3.2. Foreign Exchange

Foreign exchange is released for undertaking approved market development activities such as participation in trade fairs and exhibitions, foreign travel for export promotion, advertisement abroad, market research and procurement of samples and technical information from abroad.

3.4.3.3.3. Trade Fairs and Exhibitions

As trade fairs and exhibitions are effective media for promoting products, facilities are provided for enabling and encouraging participation of Indian exporters/manufacturers in such events. As mentioned earlier, foreign exchange is released for such purpose, the cost of participation is subsidised and the TFAI plays an important role in organising and facilitating participation

in trade fairs/exhibitions. Besides the TFAI, some other promotional agencies also organise trade fairs. For example, the MPEDA organises seafoods trade fair, in India, in every 2nd year which attracts a number of foreign buyers and others connected with the seafood industry.

3.4.3.3.4. Export Risk Insurance

As international business is fraught with different types of risks, measures have been taken to provide insurance covers against such risks. The Export Credit Guarantee Corporation (ECGC) has policies covering different political and commercial risks associated with export marketing, certain types of risks associated with overseas investments and risks arising out of exchange rate fluctuations. Further, ECGC extends the export credit risks cover to commercial banks. Marine insurance is provided by the General Insurance Corporation and its subsidiaries.

3.4.3.4. Finance

The Export-Import Bank, commercial banks and certain other financial institutions like specified co-operative banks provide pre-shipment and post-shipment finance to exports. Some of these institutions also provide suppliers'

credit, including line of credit, to promote Indian exports. Export credits generally carry concessional interest rates.

3.4.3.5. Quality Control and Pre-shipment Inspection

A number of steps have been taken by the Government to improve the quality of exports and to ensure that only goods of appropriate quality are exported from the country. The Export (Quality Control and Inspection) Act, 1962, empowers the Government to make necessary regulations in this respect.

3.5. Specific Measures to Promote Marine Products Exports

3.5.1. Need and Importance

The need for and importance of specific measures to develop the fishing industry was highlighted by the National Commission on Agriculture:

The marine fishing industry at the production level, all the world over, is characterised by the inherent economic uncertainty because of high degree of risk involved in and high investment structure in proportion to its economic profitability. In view of these economic characteristics, the marine fishing industry is given incentive support in

almost all the countries, both developed and developing. This support is provided in a variety of forms through specialised organisations such as fisheries banks, fish development authorities, fisheries boards, marine fisheries services etc. These organisations provide varied percentage of subsidies, preferential loans on long term basis extending even upto 15 years or so and even giving relief by way of tax exemptions. In countries lacking such specialised organisations, the adequate flow of credit to the fishing industry is ensured through financial institutions by giving subsidies on the rate of interest and undertaking guarantee of loans by the governments. It may be emphasised that these countries have considered it necessary to give the incentive support to the industry on the basis of economic analysis of fisheries which have attained an advanced stage.

These incentive steps have assumed considerable importance in many countries for developing maximum efficiency in the harvesting sectors of their national marine fishing industries in not only maintaining production but also for increasing production from international waters. It also illustrates the advantage of putting the resources to the maximum economic utilisation involving an input

of increasing fishing effort, without any gestation period on investment, as fishing units start giving returns soon after they are commissioned.¹¹

Important measures taken by the government to develop the fishery industry in India are described in Chapter 5. Further, many of the general export promotion measures referred to in the preceding sections of this chapter are also applicable to the marine products. A brief account of the important specific measures to promote marine products exports is given below:

3.5.2. MPEDA

In India, the initial move for augmenting marine products exports was taken by the Ministry of Food and Agriculture in 1957-'58 when several incentive schemes were started. Realising the further potentials of foreign exchange earnings, the government had set up the Marine Products Export Promotion Council in 1961. The Council was reconstituted in 1972 as the Marine Products Export Development Authority with considerable executive powers and autonomy in operation.

11. Government of India, Report of the National Commission on Agriculture, Part VIII (New Delhi: Controller of Publications, 1976), pp. 166-7.

The MPEDA is responsible for the planned and regulated development of the Indian seafood industry, especially export production and export promotion.

MPEDA provides a comprehensive package of services to Indian exporters and overseas importers- ranging from establishing buyer-seller contacts right up to ensuring that products are delivered to importers in prime condition and on time. Broadly speaking, the main objectives of MPEDA are:

- (i) Development, conservation and management of off-shore and deep-sea fishing;
- (ii) Regulating marine products exports;
- (iii) Registration of exporters and processing plants to enable better regulation, planning and development;
- (iv) Laying down standards and specifications;
- (v) Rendering financial assistance to processors and exporters;
- (vi) Helping the industry with special reference to quality control, processing and marketing; and
- (vii) Promotion of prawn farming for export production.

MPEDA has on its Board representatives from the Union Ministries of Commerce, Agriculture, Finance, Industry, Shipping and Transport, as well as the two houses of Parliament, the maritime State Governments, the seafood export industry and various fishery research institutions. The Authority also draws on the expertise of international agencies like the FAO, EEC and the ITC/UNCTAD-GATT for providing services and training to the industry. MPEDA also acts as the national liaison office for the Kuala Lumpur based INFOFISH, established by the FAO.

For the effective discharge of its functions and services, MPEDA has set up different offices and specialised divisions which are described below:

3.5.2.1. Prawn Farming

MPEDA has been specially authorised by the Central Government to take specific measures for launching result oriented projects for promotion of commercial brakish-water shrimp/prawn farming. The Authority has set up field offices in several maritime States of the country for extending extension services and financial assistance for promotion of commercial prawn farming.

Further, with a view to building up common training facilities for transfer of technology, a prawn hatchery complex has been set up near Cochin with the assistance of International Trade Centre (ITC). The Centre is equipped to train entrepreneurs, aquaculture engineers, extension workers etc. in scientific prawn culture techniques. MPEDA has also entered into technical collaboration agreements with reputed foreign firms for setting up prawn hatcheries in India.

3.5.2.2. Development

MPEDA has taken the initiative to plan and execute several development schemes for the modernisation of export processing. The Development Division administers a number of subsidy assistance schemes aimed at improving the facilities at all stages of seafood processing and generally upgrading processing technology. Particulars of the important schemes are given in Table 3.1.

3.5.2.3. Quality Control

The Quality Control Division works in close co-operation with the Export Inspection Council of India and other Indian and International quality control organisations to introduce and update quality control techniques at all levels. Regular monitoring of the

Table 3.1

Brief Particulars of Assistance Schemes of MPEDA

Sl. No.	Name of Scheme	Object	Rate of assistance
(1)	(2)	(3)	(4)
1.	Subsidy for Out-board Motors (Discontinued in the VII Plan)	To assist fishermen to mechanise their fishing crafts.	25% of the actual cost of the out-board motor subject to a maximum of Rs.5,000. If subsidy from other sources are availed of, MPEDA subsidy will be limited to the quantum by which aggregate of subsidies from other sources falls short of 33 1/3% of the cost of out-board motor or Rs.5,000 whichever is less. (The scheme was administered through Director of Fisheries of Maritime States/Union Territories.
2.	Subsidy for automatic flake/chip/Tube ice making machines.	To assist seafood processors to install machines for the production of quality ice required for in-plant use	25% of the cost of the machine; subject to a maximum of Rs.1,00,000
3.	Subsidy for Generator Sets	To assist the Seafood Processing Units to have captive power as a standby arrangement	15% of the cost of Generator Set or Rs.40,000/- whichever is less

Cont'd.

(1)	(2)	(3)	(4)
4. Subsidy for installation of improved plant freezers.	To upgrade the efficiency of Freezing Machinery used in Processing plants so that freezing can be done in 90 minutes, instead of 2 1/2 hours or more taken by traditional type of Plate Freezers.	20% of the cost of the bonded or bored type freezing units along with compressors, condensers etc. subject to a maximum of Rs.1 lakh	
5. Subsidy for refrigerated Truck	To assist Seafood Processors to acquire refrigerated trucks for transport of frozen marine products	25% of the cost of Refrigerated Truck, subject to a maximum of Rs.1 lakh	
6. Subsidy for upgrading deficient Cold Storages	To enable seafood Processors to upgrade their storages so as to maintain optimum temperature	25% for improving insulation and 25% for upgrading the existing diffusers, subject to a maximum of Rs.75,000/-	
7. Subsidy for acquisition of machinery and equipment for production of I Q F Shrimp.	To assist Seafood Processors to acquire machinery and equipment for Production of I Q F Products.	25% of the cost of the IQF Machinery and equipment subject to a maximum of Rs.15 lakhs.	

Indian waters for toxic metals, mercury, lead and arsenic; and screening of raw materials and finished materials for these elements are undertaken. The central Quality Control Laboratory operating under the Division carries about micro-biological/toxical tests, certifies on radioactivity and regularly monitors water, raw material etc, from pre-processing centres for their quality.

MPEDA encourages and assists the seafood processing industry to set up their own laboratories for checking the freshness and other standards of raw materials at various stages of processing and packaging.

3.5.2.4. Extension

The Extension Division tries to motivate industry personnel at all levels to maintain high levels of hygiene and sanitation. The Division undertakes multi-media extension campaigns supplemented with a modern mobile audio-visual unit.

3.5.2.5. Marketing Services

This Division helps solve problems of trade on a day-to-day basis like snags in cargo accumulation, shipping space, packing credit etc. and prepares feasibility reports pertaining to processing plants, cold storages,

fishing vessels etc. It also helps financial institutions and entrepreneurs in taking investment decisions.

The Division makes suitable recommendations to the Central Government for the formulation of import policy for development of marine products industry and undertakes cost studies and recommends assistance for putting new products. It also helps new exporters by putting them in touch with reliable importers.

3.5.2.6. Research and Product Development

The objective of this Division is to improve existing products and develop new product lines with a view to diversifying India's marine products export market. It also pays attention to improvements in packaging, organising training courses for technologists in developing/processing new products under guidance of foreign technical experts.

3.5.2.7. Statistics and Market Research

The principal functions of this Division include collection, compilation, analysis, and interpretation of data on production and export of marine products. It also monitors demand and supply patterns in major markets, exchange rate fluctuations and other market

intelligence. A weakly bulletin 'PRIME' (Price Indicator of Marine Products) carrying information on international price trends and other interesting trade data is regularly distributed to exporters free of cost.

3.5.2.8. Publicity and Market Promotion

This Division is concerned itself with systematically planned communication and trade promotion programmes. It participates in major food and trade fairs overseas and organises, in collaboration with the Seafood Exporters' Association of India, the Indian Seafood Trade Fair within the country, normally once in two years.

Under direct mailing, the journal 'INDIAN SEAFOODS' transmits information on current developments to seafood buyers, trade missions and other trade interests overseas. The fortnightly 'SEAFOOD NEWSLETTER' helps the domestic industry to keep abreast of important developments in international markets.

Other functions of this Division include sponsoring visits of trade delegations to foreign markets, inviting important persons from abroad for export promotion visits to India as well as other public relations activities.

3.5.2.9. Regional Offices

For effective discharge of its functions, MPEDA has established regional and sub-regional offices in several centres. These offices also function as field offices.

3.5.2.10. Trade Promotion Offices

The Overseas Trade Promotion Offices of the MPEDA at Tokyo and New York function as the eyes and ears of MPEDA and interact with seafood trade interests, government agencies, trade missions etc, for promoting the export of Indian seafood. The India Trade Centre under the Indian Mission to the European Economic Community at Brussels looks after the trade promotion in Europe.

MPEDA has a Trade Promotion Office at New Delhi too.

Chapter-IV

RESOURCE POTENTIAL

4.1. An Overview

Assessment of the resource potential and the economic viability of its exploitation is an essential pre-requisite for export development planning. The additional resource potential over the current level of exploitation is an indicator of additional export potential, given the export market conditions.

With a coast-line of about 7517 km., a shelf area of about 4.5 lakh sq. km., an exclusive economic zone of over 2 million sq. km. and a fishermen population of about 7,145,000, India is one of the major fish producing nations of the world. However, the present fish production in India is only about one-third of the estimated potential.

With the declaration of the Exclusive Economic Zone (EEZ) in 1976, India got monopoly over the living and non-living resources of a vast area of 2.02 million sq. km. in the Arabian sea, Bay of Bengal and Indian Ocean.

Table 4.1.
India's share in World Fish Production

Year	World Production (in million tonnes)	India's share		Rank
		in lakh tonnes	percent- age	
1951	23.5	7.52	3.2	7
1961	43.6	9.61	2.2	9
1971	66.1	18.51	2.8	7
1981	74.8	24.44	3.3	7
1985	85.5	28.62	3.4	7
1986	91.5	29.22	3.2	8
1989	100.00 [@]	35.10 [*]	N.A	N.A

@ Provisional Estimate

* For 1988-89

Source: FAO yearbook [reproduced in Government of India, Handbook of Fisheries Statistics (New Delhi: Department of Agriculture and Co-operation, Fisheries Division, 1989), p.III]; Globefish, "Fishery Commodity Review and Outlook, 1990-91", Infofish International, 2/91, p.13; and Seafood Newsletter, August 1989, p.5.

The fishery resources of the Indian EEZ are not yet accurately assessed. The annual potential yield of marine fishery resources of Indian EEZ estimated from primary productivity studies, exploratory surveys, rate of fish production and its extrapolation etc. ranges from 2.3 million tonnes to 8.5 million tonnes.¹ Much of the differences in the estimates are accounted for by the differences in the types of organisms included and the techniques employed for assessment.

Among the various estimates of the potential yield of the fishery resources of the Indian EEZ, the estimates by George et al. at about 4.5 million tonnes per annum has been widely accepted. In the context of the declaration of the EEZ, they have made a comprehensive review of the exploited resources in different regions and taking into consideration the additional data from the exploratory surveys in the intervening period, gave an estimate of an annual potential yield in the EEZ as 4.47 million tonnes.²

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1. Government of India, An Appraisal of the Marine Fishery Resources of the Indian Exclusive Economic Zone (Bombay: Deputy Director General (FY) Fishery Survey of India, October 1988), p. 77.
 2. George et al., Fishery Resources of the Indian Economic Zone, Silver Jubilee Souvenir (Cochin: Integrated Fisheries Project, 1977), pp. 79-116.

According to a Government source,³ the total fishery resource potential of India is 9 million tonnes comprising the marine sector's potential of 4.5 million tonnes and inland sector's potential of 4.5 million tonnes.

With the acquisition of more intensive and reliable information in future, it might become necessary to revise these figures.

Fish production in India, in 1988-'89, has been estimated at about 3.15 million tonnes, of which the share of the marine sector has been reckoned at 1.8 million tonnes and of the inland sector at 1.35 million tonnes.⁴ On the basis of the above estimates, the total fish production in India in 1988-'89 amounted to 35 per cent of the estimated potential. In the marine sector, production was about 40 per cent of the estimated potential compared to 30 per cent of the inland potential.

4.2. Marine Resources

4.2.1. Inshore and Offshore Resources

Resources of the marine sector may be broadly divided into inshore resources and offshore resources.

3. Government of India, Handbook of Fishery Statistics (Bombay: Fishery Survey of India, 1988).

4. Government of India's press note quoted in the Seafood International, August 1989, p.5.

The inshore region covers a depth of up to 50 meter and the area extending beyond 50 meters depth is the offshore region. According to the estimates of the M. Visvesvaraya Industrial Research and Development Centre, Bombay,⁵ the inshore area which covers only about 9 per cent of the Indian EEZ accounts for about half of the resources and the offshore region extending from 50 meter to 200 meter depth covering an area of less than 12 per cent of the EEZ holds about 38 per cent of the total resource potential. The oceanic region extending from 200 meter accounts for nearly 80 per cent of the area of the EEZ but contributes less than 12 per cent of the resource potential. Table 4.2 shows the details.

Uptil now, the fishing activities have been confined, by and large, to the inshore region. Until recently, the contribution of the deep sea vessels operating beyond 50 meter mfathoms to the total marine fish landings was only about 1 per cent.⁶ Because of the

5. Cited by S.M. Shukla, "New Dimensions in Fishery Management", in Seminar on Potential Marine Fishery Resources (Cochin: CMFRI Special Publication No.30, October 1987), p.84.

6. U.K. Srivastava and G.R.Kulkarni, "Systems Approach to Marine Foods Industry", in G.R.Kulkarni and U.K.Srivastava (ed.) A Systems to Framework of the Marine Foods Industry in India (New Delhi: Concept Publishing Company, 1985), p.8.

Table 4.2.
Potential Marine Fishery Resources

Depth Zone (in meter)	Area as % of Indian EEZ	Potential yield (in thousand tonnes)	Adjusted fig. (in thousand tonnes)
0 to 50	9.0	2,260 (50.56%)	3000 (66.6%)
51 to 200	11.6	1,710 (38.25%)	1000 (22.2%)
201 and over	79.4	500 (11.19%)	500 (11.1%)
	100.0	4,470	4500

Source: M. Visvesvaraya Industrial Research and Development Centre (cited by S.M. Shukla, *ibid.*, p.84)

increase in the deep sea vessels, this share might have increased now but still the deep sea resources are not exploited to any significant level.

There is a feeling that intensive fishing operations in the inshore zone have lead to economic, if not biological, overfishing of certain resources like shrimp. This, however, seems to be incorrect. Given the potentials and current levels of exploitation, it is clear that there is still scope for significantly increasing the fish production from this zone.

From the various studies it has ... emerged that it would be more profitable to fish further in 20-40 fathoms depth because that would give most economical returns. It would also be less expensive, since existing boats can exploit this area without any further investment. This area can be fished by smaller and medium fishermen with their existing technology and equipment.⁷

7. S.M. Shukla, *ibid*, p. 84.

The estimate is that another one million tonnes of fish can be harvested by exploiting to the optimum level the depth zone of 0 to 50 meter.⁸

As indicated earlier, nearly 50 per cent of the yield potential of the Indian EEZ is in the depth zone of 50 meter and above. Fish production from this zone has so far been very negligible. Even the so called deep sea fishing vessels "reportedly fish upto 70 meter depth or at best a little beyond because of their accent on shrimp and other considerations. The deep sea fish resources comprising demersal, and small and large pelagic are practically unexploited."⁹

There are several reasons for the very poor exploitation of the deepsea resources. The important reasons are:

- (i) lack of deep sea fishing vessels, at least until recently;
- (ii) dearth of funds;
- (iii) lack of expertise for commercial operations;
- (iv) inadequacy of information regarding deep sea resources; and
- (v) market constraints.

8. ibid, p. 84.

9. Government of India, An Appraisal of the Marine Fishery Resources of the Indian Exclusive Economic Zone, op. cit., p. 1.

4.2.2. Geographic Distribution

Table 4.3 shows the geographic distribution of the marine fishery resources.

About 58 per cent of the potential is in the western region and over 60 per cent of this is in the South-West region.

As per the production figures available for the recent past, fish production from the North-Western region was equivalent to about 61 per cent of the potential and from the South-West region it was only about 35 per cent of the potential. While about 57 per cent of the potential of the South-East region was exploited, exploitation of the North-Eastern potential was less than 10 per cent.

The contributions of Andaman and Nicobar Island region was only about two per cent and in the case of Lakshadweep region it was only about 5 per cent of the potential. In these two regions, the resources are concentrated in the depth zone of 50 to 200 meter.

The oceanic zone of all the regions together account for about 11 per cent of the total potential and this remains, by and large, unexploited.

Table 4.3

Estimated annual potential yield of marine fish
in the EEZ of India (in thousand tonnes)

Region	India's present production	Annual potential yield			Total
		0-50m	50-200m	beyond 200 m	
North-west	489	540	340	--	880
South-west	498	700	720	--	1420
South-east	386	480	200	--	680
North-east	65	540	200	--	740
Lakshadweep	4	--	90	--	90
Andaman & Nicobar	4	--	160	--	190
Oceanic of all regions	---	--	--	500	500
Total	1416	2260	1710	500	4470

Source: James et al. "Potential Marine Fishery Resources of India" in Seminar on Potential Marine Fishery Resources, op. cit., p. 48.

It may also be noted that the western region has contributed about 70 per cent of the production although its share in the total potential is only about 58 per cent.

4.2.3. Resource categories

The marine fishery resources of India in the four main regions, North-West, South-West, South-East and North-East consist chiefly of:

- (1) Major pelagic resources, such as oil sardine, mackerel, seerfish, tuna, and other pelagic resources of regional importance, such as lesser sardine, anchoives and ribbonfishes;
- (2) Demersal fishery resources, such as perches, sciaenids, catfishes, polynemids, flatfishes, pomfrets, eels, sharks, rays;
- (3) Midwater fishery resources constituted by Bombay duck, silverbellies and horse mackerel;
- (4) Crustacean fishery resources, consisting of prawns, shrimps, lobsters and crabs;
- (5) Molluscan fishery resources such as chank, oysters, mussels, clams, squids and cuttlefishes; and
- (6) seaweed resources.

Table 4.4 and Figure 4.1 show the potential yield and the current yield of the major groups of fishes.

Table 4.4

Potential and present yield of major species/
groups (in million tonnes)

Species/group	Potential Yield	Present Yield	Percentage
Pelagic fishes	1.850	0.754	40.7
Demersal fishes	1.095	0.493	45.0
Crustaceans	0.325	0.236	72.0
Cephalopods	0.180	0.024	13.3
Oceanic fishes	0.500	Neg.	0.2
Miscellaneous	0.520	0.057	10.9
Total	4.470	1.565	35.0

Source: Ouseph D. Attokaren, "Deepsea Fishing in Indian waters: Role and Aspirations of the Industry", Eighth Indian Seafood Trade Fair Souvenir (Cochin: SEAI and MPEDA, February 1989).

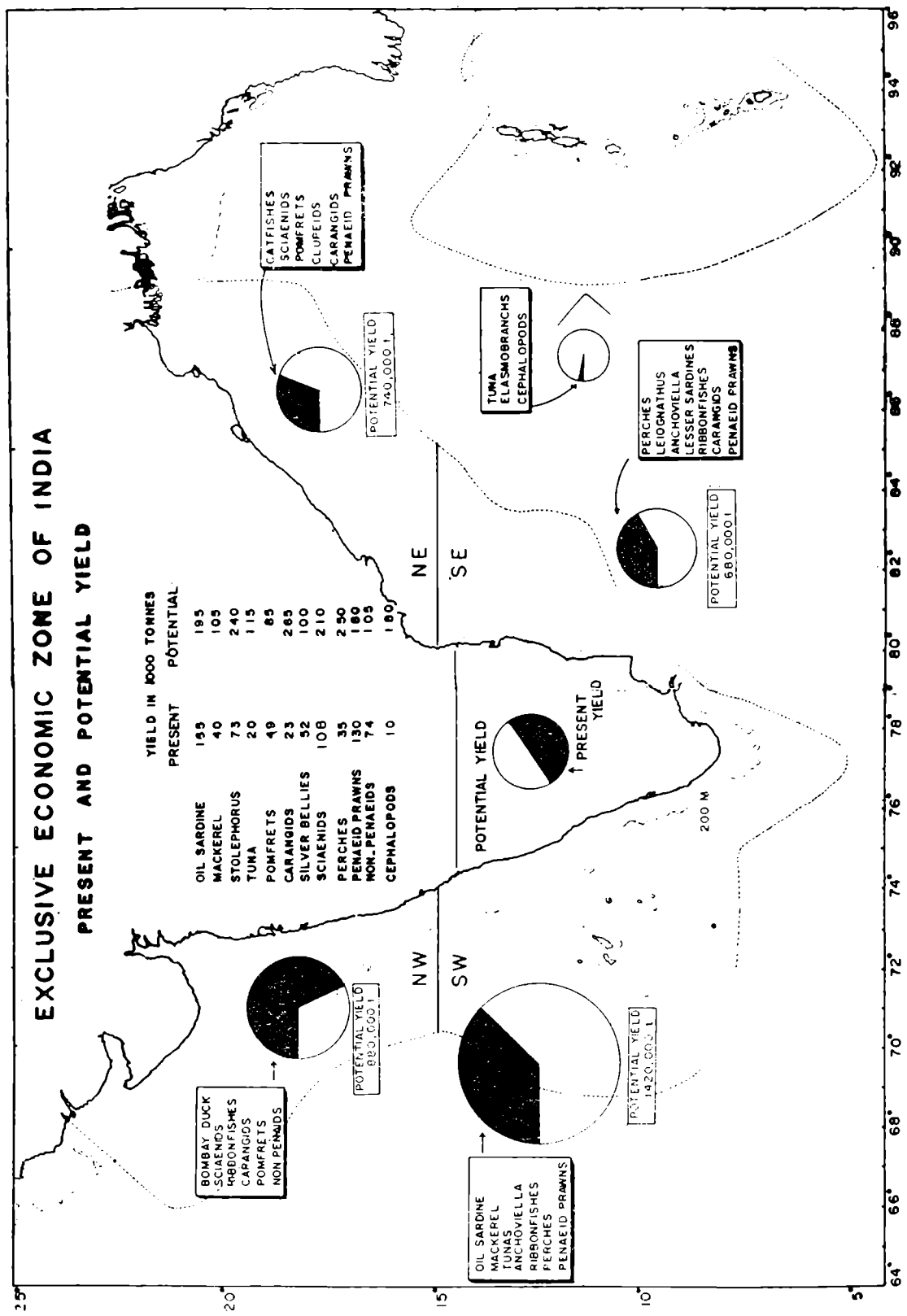


FIG.4.1. Map of the EEZ of the India showing the area wise estimated potential yields of different groups.
(Reproduced from James *et al.*, *op. cit.*)

4.2.3.1. Pelagic Resources

Table 4.5 shows that the pelagic fishes account for the largest share of the total potential (41 per cent). Recent yields have been only about 40 per cent of the potential.

By the acoustic and areal surveys conducted by the erstwhile Pelagic Fisheries Project along the South-West coast and the Gulf of Mannar, the average annual biomasses of white bait, horse mackerel, mackerel and oil sardines have been estimated respectively as 0.75, 0.13, 0.27 and 0.55 million tonnes. A single group resource that is reported to have a very high concentration in the 20-50 meter zone is the anchovies, particularly in the South-West and Gulf of Mannar regions. Besides, definite indications of large stocks of oil sardine, mackerel, pomfret, carangids, ribbonfish, lesser sardines and coastal tunas in depth zone 50-200 meter have also come from recent surveys along the east and west coasts of India.¹⁰

10. These estimates have been cited from different sources by P.S.B.R. James et al., "Potential Marine Fishery Resources of India", op. cit., pp. 49-51.

Table 4.5

Pelagic stocks with high potential vis-a-vis
current production

Species	Potential yield (x 1000t)	Average current yield (x 1000t)
Other Sardines	1410	66
Anchovies	240	92
Other Clupeids	165	30
Ribbon fishes	270	50
Carangids	265	44
Coastal tunas and related species	240	20

Source: James et al., "Potential Marine Fishery Resources
of India", ibid., p. 51

Stock assessment studies carried out by CMFRI on the exploited major pelagic stocks has indicated that increased production from the stocks in the presently exploited ground is possible by capturing them at increased size or by extending the fishing to unexploited areas.

4.2.3.2. Demersal Resources

Demersal species constitute about 25 per cent of the total potential resources. Recent production has been only about 45 per cent of the potential.

It has been pointed out that the 0-50 meter zone is intensively fished and any increase in effort here is likely to affect the stock. Enhanced production is possible only by allowing to increase the size of fish at capture of the presently exploited stocks, or by extending fishing to the unexploited grounds, where too good concentration of the species presently exploited are found to occur.¹¹

Table 4.6 shows the groups that have greater potential for further exploitation and offer scope for increased production among the currently exploited demersal finfish resources.

11. James et al., ibid., p. 52.

Table 4.6

Demersal stocks with high potential vis-a-vis
current production

Species	Potential yield (x 1000t)	Average current yield (x 1000t)
Elasmobranchs	185	61
Catfishes	310	58
Perches	250	48
Sciaenids	210	94
Leiognathids	100	69

Source: James et. al., p. 58.

Various surveys have indicated the availability of non-conventional resources in the deeper waters of the shelf and slope along the South-West coast that are mainly consisting of fishes such as Chlorophthalmus, Cubiceps matalensis and Pseneopsis. Their potential yields have been estimated at 33,000 tonnes and their maximum abundance is reported to occur in 300-400 meter depth in July-January period. Surveys have also revealed that in different sections of East and West coasts there exist new and rich resources like Bull's eye block ruff and Indian driftfish in depths ranging from 100 to 500 meter with catch rates as high as 600 kg/h and 1400 kg/h, respectively indicating their commercial potentialities.¹²

4.2.3.3. Crustacean Resources

Crustaceans account for only about 7 per cent of the total potential but about 15 per cent of the total production. The recent production has been about 73 per cent of the potential and this represents a very high exploitation rate in comparison with the other groups.

12. These estimates have been cited from different sources by James et al., ibid., p. 61-63.

The impetus provided by the lucrative export market led to intensive shrimping in the close-shore areas within 0-50 meter depth zone, and it is believed to have resulted in economic overfishing in certain regions such as the South-West coast. Overfishing has been reported also in the sandheads, near Vishakapatnam, the only commercially proven deepsea fishing well in the country. This well which has a sustainability of about 100 vessels has been exploited by about 500 small operators, besides the regular big trawling companies.¹³ As a result, for the last two-three years trawler operations have been making losses. Intensive exploratory fishing have indicated the potentialities for deep water shrimp, lobsters and crabs off South-West and South-East coasts and in the Gulf of Mannar.

The sustainable potential for deep-sea shrimp along the South-West coast has been estimated at 3000 tonnes and that for deep-sea lobster Puerulus Sewelli at 8000 tonnes for South-West coast and 12,000 tonnes for South-East coast. The maximum abundance of deep-sea shrimp was observed in 300-400 meter depth zone, during

13. Special correspondent, "Sandheads fishing trawler operators discontinue work", The Economic Times, 14-3-1990.

the months October-January, and for deep-sea lobster in 180-270 meter depth, during February-June. Among the deep-water crab resources, the most promising is that of *Charybdis edwardsii*.¹⁴

Table 4.7 shows the crustacean resources offering scope for increased production.

4.2.3.4. Cephalopod Resources

Recent landings of cephalopods comprising squids, cuttlefishes and octopus has been about 17 per cent of the total potential of about 1.8 lakh tonnes. The present landings of this group are mainly by shrimp trawlers as by-catch from inshore waters along both coasts, Lakshadweep and Andaman-Nicobar islands.

There is considerable scope for the development of cephalopod fishery in waters beyond 50 meter depth.

4.2.3.5. Resources with Export Potential

The Marine Products Export Development Authority, after conducting several market surveys, has identified several marine species/groups with export potential.

14. These estimates have been cited from different sources by James et al., op. cit., pp. 63-4.

Table 4.7

Crustacean Resources with Scope for
Increased Production

Species	Potential yield (x 1000t)	Average current yield (x 1000t)
Penaeid prawns	180	111
Non-penaeid prawns	105	57
Deep water shrimp and lobster	12	0.5

Source: James et al. p. 64

Table 4.8 shows the potential and average production trends of major species (groups with export potential).

Besides those given in Table 4.8, there are certain other items with export potential like clams and mussels, aquarium fishes, sea weeds etc. It is held that "India's potential for export of ornamental fishes and plants is unlimited and despite this, our export is negligible and not even 0.1 million dollar"¹⁵ compared to the huge world trade in ornamental fishes which touched \$ 689 million in 1987 and which is expected to grow further to a billion dollar by 2000 AD.¹⁶

The MPEDA has identified about 100 varieties of marine ornamental fishes in Lakshadweep, 90 varieties in Andaman Islands and 53 species in the North-East Hill states of India. The North-East Hill states are found to hold very rich resources for fresh water aquarium fishes and plants.¹⁷

There is also rich potential for seaweed culture in India but no significant effort has been made for its development.

15. M. Sakthivel, op. cit.

16. ibid.

17. ibid.

Table 4.8

Potential and Average Production Trend of
Major Marine Species/Groups (in 1000 tonnes)

Sl. No.	Species/Groups	Potential yield	Current yield (average for 1983-88)
1.	Oil sardine	244	127
2.	Bombay duck	100	97
3.	Anchovies	240	119
4.	Other sardines	140	73
5.	Other clupieds	165	36
6.	Mackerels	145	60
7.	Carangids	265	77
8.	Elasmobranchs	185	57
9.	Cat fish	310	53
10.	Perches	250	79
11.	Sciaenids	210	106
12.	Ribbon fish	270	73
13.	Silver bellies	100	69
14.	Seer fish	45	34
15.	Coastal tunas	240	26
16.	Oceanic tunas	500	0.5
17.	Pomfrets	85	41
18.	Penaeid prawns	180	134
19.	Non-penaeid prawns	105	56
20.	Cephalopods	180	31
21.	Crabs	44	18*
22.	Sharks, rays and skates	300	59*
23.	Deepsea prawn and lobster	12	Neg.*
24.	Coastal lobster	4	3*

* average for 1982-'86.

Source: MPEDA.

Many of the items listed in Table 4.9 already figure in our exports but, except shrimp, in very insignificant quantities. Consumer demand for many of these items within the country itself is very high and their international market prices are not very attractive.

Species like cuttlefish and squids do not have any domestic demand and they are very poorly exploited vis-a-vis their potential. Squids and cuttlefishes landed are only incidental catches in the exploitation of shrimps and fishes and practically no advance has been made to exploit these resources through specialised fishing. Similarly, although tuna has a good export market, India has not been able to make use of the opportunity in a significant way. The average annual landings of tunas and tuna like fishes from the Indian waters is about 24,000 tonnes, but these are mostly small coastal tunas caught as by-catches. The estimated potential of tuna varies from 100 to 150 thousand tonnes.¹⁸ The estimates of the potential yield of skipjack in Indian ocean are in the range of 2.25 to 4 lakh tonnes.¹⁹ However, except the pole and line fishing in Lakshadweep there is hardly any effort in the country aimed at exploiting the skipjack potential.

18. Government of India, An Appraisal of the Marine Fishery Resources of the Indian EEZ, op. cit., p.80.

19. ibid., p.81.

In short, except the marine shrimp, the export potentials of our fishery resources remain either unexploited or under-exploited.

4.3. Brakish Water Resources

India is estimated to have around 1.4 million hectares of brakish water area in the form of mud flats, mangrove swaps, tidal cracks, backwaters and estuaries.²⁰ According to a study by the Indian Institute of Management, Ahmedabad, the estimated culturable area of brackish water in India is about 0.95 million hectares.²¹

According to MPEDA, about 60,000 hectares of this area are currently utilised for shrimp farming, mostly in traditional way, producing around 30,000 tonnes annually, indicating an average yield of 500 kg. per hectare. This is a very poor yield compared to the production of 10 and 20 tonnes per hectare achieved by Taiwan and Japan.²²

20. Cited by the MPEDA's brochure on Prawn Farming Promotional Activities.

21. U.K.Srivastava, 'Marine Fisheries Development'-- An outlook for 21st century and key policy issues', in National Symposium on Research and Development in Marine Fisheries (Cochin: CMFRI, June 1989), p.5.

22. Cited by MPEDA's brochure on Prawn Farming Promotional Activities.

The brackish water, thus, offers a tremendous potential for a quantum jump in production by expanding the area under brackish water aquaculture and increasing the productivity.

4.4. Fresh Water Resources

Out of the estimated production of 3.15 million tonnes of fish in 1988-'89, 1.35 million accounting for 43% of the total was from the inland sector. This was only 30 per cent of the estimated potential of 4.5 million tonnes of the inland sector. India is one of the largest producer of inland fishes in the world.

With 27,000 km. long major rivers and about 2.7 million hectares of identified water area in the form of reservoirs, tanks and ponds which could be utilised for capture as well as culture fisheries,²³ there is tremendous potential for increasing the inland fish production.

Fresh water aquaculture contributes about half of the inland fish production today. It has been pointed out that as the yields from rivers have declined owing to various reasons such as water destruction, deforestation and increasing pollution, intensive aquaculture

23. Figures quoted in the Inaugural Address by Bhuta Singh, Minister for Agriculture and Rural Development, to the International Conference on Fisheries Development 2000 AD, New Delhi, February 4-6, 1985.

is the only hope for future.²⁴ There is a very tremendous potential for increasing production by aquaculture. However, the progress in this direction has been very tardy.

It has been pointed out that a properly planned development programme for the three major areas of inland fisheries, riverine fisheries, reservoir fisheries and aquaculture encompassed under a national fisheries policy could aim at achieving a four to five fold increase in production from the present level in the coming decade.²⁵

4.5. Progress of Exploitation

The estimates of resource potentials and production cited in the preceding sections of this chapter clearly show that there is great potential for increasing fish production with proper planning and development.

The progress achieved by India in exploiting the fishery resources has been unsatisfactory due to the

24. S.D. Tripathi, "Inland Fisheries, Accent on Intensive Systems", The Hindu Survey of Agriculture, 1989, p.239.

25. E.G.Silas, "Aquaculture Needs Fresh Look", The Hindu Survey of Indian Agriculture, 1988, p. 209.

the several reasons of differing nature mentioned elsewhere in this chapter and in the next chapter.

In the marine sector, a much greater thrust needs to be given to the exploitation of the offshore resources. A significant expansion of the deep sea fishing fleet and their proper utilisation are required for a substantial step-up in the exploitation of the deep-sea resources.

The Report of the Special Group of Scientists of the Fishery Survey of India, appointed to make an indepth study of the marine fishery resources of the Indian EEZ, provides an estimate of the vessel requirements for the exploitation of the fish stocks. The vessel requirement to exploit the demersal fish stock from 50-300 meter depth at MSY level is worked at as 390 vessels along the West coast, 94 vessels along the East coast and 27 vessels in the Wadge Bank and Gulf of Mannar. The vessels required are of 25-30 meter OAL with 200-300 GRT and are expected to operate 300 days in a year with 250 days of actual fishing and land about 1115 tonnes per annum along West coast and 940 tonnes along East coast, Wadge and Gulf of Mannar.²⁶

26. Government of India, An Appraisal of the Marine Fishery Resources of the Indian EEZ, op. cit., p.81.

The number of vessels required to exploit the oceanic resources along the South-West coast is about 20 based on the assumption that a 35 meter long liner will land about 1200 tonnes catch per annum. The remaining areas of the Indian EEZ may require about 80 vessels to exploit oceanic resources.²⁷ Against these estimates of the requirements, the present stock of the vessels is quite inadequate.

Similarly, although there is enormous scope for aquaculture production, so far we have exploited only a fringe of the enormous potential.

In short, India has rich potentials of capture and culture fisheries but the large part of them remains unexploited or underexploited. Further, the resource potentials, their abundance and the suitable techniques for their optimum exploitations are not yet fully established.

27. ibid., p. 81.

Chapter V

FISHERIES DEVELOPMENT UNDER THE PLANS

With the launching of development planning in India in 1951, various sectors of the economy received a development impetus. Objectives of development of different sectors were defined and plans were formulated for the accomplishment of these objectives.

This chapter reviews the objectives and programmes of fisheries development under the Plans and their achievements.

5.1. Organisational and Statutory Framework

The manifold activities of different nature involved in the comprehensive development of fisheries have called for an elaborate organisational arrangement under the Central and State Governments for the management of fisheries development.

The development and regulation of marine fisheries within the territorial waters of the Indian coast, known as inshore fisheries, and of inland fisheries are under the administrative jurisdiction of the respective State Governments. The responsibility for the development of

the offshore and deepsea fisheries is vested with the Central Government.

The Fisheries Departments of maritime states formulate and implement schemes for inshore and inland fisheries development and for improving the living conditions of fishermen. They assist the mechanisation of fishing boats, arranging of bank loans through fishermen co-operative societies for purchase/improvement of crafts and gears, and domestic marketing and manage housing schemes for fishermen. They have also established boat building yards, nylon net factories, fishermen training centres etc. Some State Governments have also set up Fisheries Corporations.

In the Central Government, the different phases of marine fisheries development, from exploration to marketing, fall under the administrative jurisdiction of the ministries of Agriculture, Commerce and the recently constituted Food Processing Industries. The Ministry of Agriculture is concerned with fish production, the Ministry of Commerce is involved in the regulation and promotion of exports, and the Ministry of Food Processing Industries looks after the development of fish processing industry.

A number of organisations/agencies have been established by the Central and State Governments to effectively carry out various activities related to fisheries development. Important among them are Marine Products Export Development Authority (MPEDA); Inland Fisheries Project; Reservoir Fisheries Project; Angling and Aquatic Conservation Society of India; Fishery Survey of India (FSI); Central Institute of Fisheries and Nautical Engineering Training (CIFNET); Integrated Fisheries Project (IFP); Central Institute of Coastal Engineering for Fishery (CICEF); Deep Sea Fishery Organisation (DSFO); Exploratory Fisheries Project (EFP); Fish Farmers Development Agency (FFDA); Indian Ocean Fishery Agency (IOFA); Central Inland Fisheries Research Institute (CIFRI); Central Institute of Fisheries Technology (CIFT); Central Marine Fisheries Research Institute (CMFRI); and, Central Institute of Fisheries Education.

Besides the exclusive organisations for the fisheries development, there are several other organisations which, inter-alia, assist the development of the fisheries industry, like the Export Inspection Council, Indian Institute of Packaging, Shipping Credit and Investment Company of India, National Bank for Agriculture and Rural

Development (NABARD), commercial banks, co-operative banks etc.

Certain legislative measures have also been taken to empower the Government with statutory authority for regulating fisheries related activities.

Some laws were enacted even much before the Independence. The early fishery laws, however, were typically revenue oriented.

Fisheries regulation in India is about a century old now. The Indian Fisheries Act of 1987, which made the development, management and conservation of fisheries principally a State subject, empowered the States (erstwhile Provinces) to formulate their own rules/laws for the safeguard of fisheries and provided certain conservational measures to prevent the destruction of resources. This Act and the Andaman and Nicobar Fishing Regulations Act, 1938, empowered the Government to collect revenue from shell fisheries, pearl fisheries etc.

Since the establishment of the Exclusive Economic Zone (EEZ), legislative measures have been taken for the conservation of the resources of the Indian EEZ. Prior to that, there had not been any law for regulating

fishing by foreign fishing vessels except the Foreigners Act and the Indian Penal Code. The Territorial Waters, the Contiguous Zone, the Continental Shelf, the Exclusive Economic Zone and other Maritime Zones Act, 1976, besides extending sovereign rights of the country to explore, exploit and manage living and non-living resources of the sea around the country upto the EEZ limits, also marks the beginning of the fisheries legislation aimed at exploration, exploitation, conservation and management of the nation's marine resources. The Maritime Zones of India (Regulation of Fishing by Foreign Fishing Vessels) Act, 1981, aims at regulation of fishing by foreign fishing vessels in Indian EEZ and prevention of poaching of fishery resources of India by foreign vessels. Under this Act, detailed rules, viz., Maritime Zones of India (Regulation of Fishing by Foreign Fishing Vessels) Rules, 1982, were framed which forbid fishing by foreign vessels for shrimp and other finfish resources in the coastal areas, where there are already conflicts among different sectors of our own fishing industry for which all maritime States have either enacted or are in the process of making legislation. A main purpose is to make the conventional area of operation of our own fishing fleet out of bounds for foreign fishing vessels.

5.2. Objectives and Programmes

Although the development of fisheries received considerable attention ever since the First Five Year Plan, export as one of the objectives of the development of the fisheries began to be specifically stated only since the Third Plan (1961-'66). This does not, however, mean that the measures for the development of fisheries in the earlier Plans did not have implications for exports nor that the Government did not take any measures to help the seafood exports.

The fisheries development programmes of the earlier Plans, like the strengthening of the harvesting paraphernalia like crafts and gears; development of infrastructure for harbouring and landing, transportation, processing, storage etc. definitely helped the growth of marine products exports. However, export growth of the earlier period may be regarded as an autonomous growth rather than the result of specific measures taken to develop the exports.

In view of the general neglect of the export development, which characterised the first two Five Year Plans in particular, as pointed out in the second chapter of this thesis, it is not surprising that the planners failed to

recognise the export potential of the fisheries sector and to envisage the foreign exchange earnings potential of development of this sector. As in the case of most other sectors, the approach to the development of the fisheries was characterised by the absence of an integrated and a total view of the benefits of development. In the First Plan, for instance, development of fisheries was viewed as "one of the most promising means of improving the diet of the people".¹ There was not even a reference to export of fisheries products, let alone recognising exports as an important objective of the fisheries development. Similarly, there was no reference to the enormous employment potential of this sector. The First Plan document, thus, gives an impression that the only logic for the development of the fisheries was its potential to improve the diet of the people. The Second Plan expanded the fisheries development programme "with a view to increasing the production and availability of fish and fisheries products".² Had the planners

1. Planning Commission, Government of India, First Five Year Plan (New Delhi: Publications Division, Government of India, 1952), p. 306.

2. Planning Commission, Government of India, Second Five Year Plan- Draft Outline, op. cit. p. 96.

realised the employment and export potentials of the fisheries, this sector would have got more importance and its level of development and contribution to the nation, including foreign exchange earnings, now would have been much better.

Although the export potential of the fisheries had not been recognised, development of fisheries received considerable attention since the beginning of the planning era and the overall development of fisheries under the impetus of planning helped the growth of seafood exports as a corollary.

Measures taken for the development of fisheries under the Five Year Plans include strengthening the fleet of the fishing vessels, including mechanisation of country boats, introduction of new mechanised and deep sea fishing vessels; strengthening the gear system; development of harbours and landing facilities; development of transportation, storage, processing and marketing facilities; establishment of facilities for education, research and development, training and manpower development; development of aquaculture etc.

Although export was neglected in the earlier Plans, it has been given high importance in the recent Plans

that it is even argued that in the development scheme for fisheries there has been an over-emphasis on exports.³

The following paragraphs give a very brief review of the approach of the various Five Year Plans to fisheries development. This is followed by a brief account of the development of various components of the development of the fisheries sector.

The First Plan, which envisaged an enormous scope for and need for increasing the production of fresh water and sea fish, noted that the exploitation of the fisheries resource was constrained by the structural weakness of the fish catching system and the inadequacy of the harbour and landing facilities. The First Plan, therefore, accorded the following priorities for marine fisheries development:

- (i) mechanisation of country crafts or introduction of new mechanised boats;
- (ii) harbour facilities;
- (iii) supply of requisites to fishermen;
- (iv) development of marketing;

3. See, for example, Mony K.Mathew and M.K.Das, "What ails Indian Fishing", Financial Express, 4-11-1988, p.4.

- (v) provision of ice and cold storage and transport facilities;
- (vi) introduction of mothership operations; and
- (vii) provision for offshore fishing with larger powered vessels such as purseiners and trawlers.

The development of inland fisheries had begun on a small scale even before the First Five Year Plan and this was intensified since the First Plan.

The Second Plan addressed itself to the following tasks for the development of the marine fisheries.

- (i) improvement of fishing methods;
- (ii) development of deep-sea fishing;
- (iii) provision of fishing harbours; and
- (iv) the organisation of fish transport, storage, marketing and utilisation of fish.

Fisheries schemes in the Third Plan were formulated with the main objective of increasing production so that protein diet became available to the population in addition to cereals. Consideration was also given towards effecting improvement in the condition of fishermen.

Emphasis was also placed, for the first time, on the development of export trade.

Formation and running of fisheries co-operatives was an important aspect of fisheries development envisaged during the Third Plan.

A beginning had already been made to establish ice cold storage, processing and canning facilities. This was sought to be expanded during the Third Plan.

The Annual Plans (1966-'69), which followed the Third Plan, carried forward the objectives of the Third Plan. The Annual Plans, in fact, sought to consolidate the achievements of the previous plans rather than for further development. Outlay provided for each sector was in respect of continuing schemes with the object of fulfilling the targets.

In the Fourth Plan, fisheries development had three main objectives, namely;

- (i) increase in fish production to meet protein requirements;
- (ii) development of export potential;
and
- (iii) improvement in the economy of fishermen.

Until the end of the Third Plan, the fisheries development programme was financed exclusively by direct plan outlays. However, later, the Agricultural Refinance Corporation and the Industrial Development Bank of India came forward to finance certain fisheries development activities.

The Fourth Plan document noted that in the marine sector offshore and deepsea fishing failed to receive adequate attention in the past due to non-availability of requisite number of fishing trawlers, lack of infrastructure, insufficient facilities of storage and distribution and lack of information on fishing grounds. It was, therefore, decided to make efforts to rectify these short-comings. It was proposed to introduce 300 fishing trawlers to be operated by private companies, co-operatives and state fisheries corporations, and to provide landing and berthing facilities for larger vessels at several major and minor ports and for smaller boats at about 48 ports where servicing and repair workshops, ice factories, cold storage and other ancillary facilities would be provided.

The Fifth Plan (1974-'79) carried further forward the efforts to explore and exploit the fishery resources.

In order to promote introduction of a large number of fishing vessels by private entrepreneurs, co-operatives and State Corporations, a Trawler Development Fund was created to extend financial assistance. This programme envisaged both import of fishing vessels from abroad and construction indigeneously. Financial assistance to State Fisheries Corporations was given for diversified fishing, processing and marketing.

The Fifth Plan inaugurated the setting up of Fish Farmer's Development Agencies to promote intensive aquaculture through fish farmers in selected districts. Further, in order to establish the economic advantages of brackishwater fish farming, a pilot project was started in all the coastal States.

Although the Fifth Plan envisaged considerable increase in fish production, fish production fell short of targets largely due to shortfalls in the introduction of large deep-sea fishing vessels, production of fish seed, establishment of nursery areas and water areas brought under fish culture. Survey of marine fishery resources beyond 40 fathoms could not be conducted due to paucity of large vessels. However, steps were initiated for the acquisition of large and adequately equipped survey vessels from abroad and construction of

similar vessels in Goa shipyard. The Exploratory Fisheries Project operated with 25 vessels from 12 bases in the East and West coasts. An area of 2.8 lakh sq. kms. was surveyed.

The Draft Five Year Plan for 1978-'83 (which was terminated at the end of the second year due to political changes) proposed to pay special attention to augment fish production "as it is one of the sectors eminently suited to assist a large mass of economically weaker and backward sections of the rural community".⁴ It was also envisaged that intensive exploration and judicious exploitation of marine resources would help in further boosting up the export trade in shrimps and other fish and fish products.

The principal objectives of Fisheries Development Programme in the Sixth Plan (1980-'85) were:

- (i) to step up considerably fish production both in marine and inland sectors;
- (ii) to promote inland fish production on scientific basis through extension, education and training and provision of inputs with a view to increasing the productivity of water area;

4. Planning Commission, Government of India, Draft Five Year Plan 1978-'83 (New Delhi: Controller of Publications, 1978), p. 147.

- (iii) to organise intensive surveys on marine fishery resources assessment and ensure optimum exploitation of marine resources through a judicious mix of traditional country boats, operators of mechanised boats and deepsea fishing vessels;
- (iv) to intensify efforts on processing, storage and transportation of fish, improve marketing, tap vast potential for export of fish and fish products; and
- (v) improve the socio-economic conditions of fishermen.

Consequent on the declaration of exclusive economic zone of 320 km. from the coast line, it was felt that special efforts should be made to augment marine fisheries exploitation. In addition, coastal fisheries exploitation, mariculture and brackishwater fish farming were given special attention in order to provide economic benefits to coastal fishing communities through a blend of culture and capture fisheries. Further, attention was paid to export marketing through production and test marketing of new fishery products prepared out of cheap and inexpensive fish.

Along with introduction of large number of mechanised boats and deep-sea fishing vessels for exploitation of marine resources, development of berthing and landing

facilities for fishing vessels through improvement at the existing harbours and construction of new fishing harbours was continued.

In the marine fisheries, the emphasis was on increasing additional fish production by fish farming.

Under the Seventh Plan (1985-'90), the main thrust in the marine fisheries was on the exploitation of EEZ by promotion of investment in deep-sea fishing, especially to harvest resources beyond 40 fathoms. For coastal fishing, besides introducing new motorised and mechanised fishing crafts, attempts were made to expand diversified coastal fishing. The Plan proposed to introduce new gears and improved design of boats with a view to ensuring better returns to 1.8 million traditional fishermen operating in the coastal belt.

For the operation of both mechanised and deep sea fishing vessels, efforts were made to develop further the landing and berthing facilities by completing the on-going construction of major and minor fishing harbours. Priority was given to constructing small fish landing centres for use by traditional fishermen operating 1,54,000 fishing crafts and contributing as much as two-thirds of marine fish production.

The Seventh Plan also proposed to take up product development for domestic and export markets from unconventional fish of low value, landed by mechanised boats and trawlers. In addition, handling and processing facilities were strengthened to save quality fish landed in large quantities during good fishing season. Attention was also paid to post-harvest technology in preserving, processing and marketing of fish. Fish marketing in the co-operative sector was encouraged and emphasis was given to setting up hygienic markets for sale of fish through an integrated cold chain of wholesale and retail outlets preferably under the corporate or co-operative sector.

In the inland fisheries, the main emphasis was on intensive fish farming in tanks and ponds through the Fish Farmers' Development Agencies and to introduce prawn farming in brackish water areas by establishing 'Area Development' prawn farming estates. Special emphasis was given on introducing high yielding fish farming techniques in tanks and ponds through FFDA's.

5.3. Components of Development

5.3.1. Crafts and Gears

The success of exploitation of the fishery resources

depends to a very large extent on the nature and size of the craft and gear system* and the efficiency of utilisation of the system.

Certain fishing gears and methods do not require a craft as in the case of certain shore-based or shallow-water fishing. However, in modern fishing, both the craft and gear are essential for fishing and they form a system. In the ultra-modern fishing, the system is more advanced, elaborate and integrated that the craft is well equipped for processing and storage of large quantities of the catches.

As the craft and gear system plays a pivotal role in the exploitation of the known fishery resources, efforts have been made since the beginning of Planning to develop this system. This involved measures to improve the operational efficiency of the existing crafts, like motorising traditional boats and introduction of new vessels of different types, to exploit the varied resources of different areas.

* Fishing gear refers to the tool/implement used to catch fish, like the fishing net, and craft refers to the floating platform for operating the gear to catch fish, like the fishing boat.

The development of the craft system in India has had four phases, viz.,

- (i) country craft motorization,
- (ii) introduction of small mechanised boats,
- (iii) introduction of more specialised boats, and
- (iv) broadening into fishing fleets.

As a result of these developments, the fishing industry in India now consists of three distinct sub-sectors in the craft and gear system. These sub-sectors are:

- (i) Traditional sector with non-mechanised crafts and gears.
- (ii) Modern sector consisting of small mechanised boats.
- (iii) Ultra-modern sector consisting of large vessels designed to operate in high seas beyond the areas of operations of traditional and small mechanised craft.

It was estimated that about 67 per cent of the marine fish landing was contributed by the traditional sector, about 32 per cent was accounted for by the modern sector and the remaining one per cent by the

ultramodern sector.⁵

An important step in increasing the operational efficiency of the existing apparatus has been the motorization of the country crafts.

There have been several schemes sponsored by Central and State Governments and certain development agencies like MPEDA, National Co-operative Development Corporation and NABARD for promotion of motorization of the country crafts. The main facilities provided have been subsidy and loan on liberal terms.

A survey of the traditional fishing crafts of the country revealed the existence of 17 principal types of fishing crafts which had been indigenously evolved on the basis of their suitability of operation in the respective local condition.

During the First Plan, a thorough examination of the various designs of traditional crafts was carried out and it was found that only a few designs of

5. U.K. Srivastava and G.R.Kulkarni, "Systems Approach to Marine Foods Industry" in G.R.Kulkarni and U.K.Srivastava (ed.), A Systems Framework of the Marine Foods Industry in India (New Delhi: Concept Publishing Co., 1985), p. 8.

traditional crafts were suitable for mechanisation. Simultaneously, attempts were made to see whether the boats which were suitable for taking inboard engine could be fitted with outboard motors. By and large, the boats were found to be unsuitable for motorization due to the high stern. In some boats, however, the outboard motor could be mounted on a special bracket fixed for the purpose.

The traditional crafts, even with the motorization to the extent possible, are quite insufficient to exploit the marine fishery resources of India. Introduction of new vessels of different types, therefore, formed an integral part of the fisheries development.

One of the first series of small mechanised boats fit for trawling was made by the Indo-Norwegian Project in 1957. The Central Institute of Fisheries Technology, Cochin, has also brought out a large number of designs and these have been adopted for construction of mechanised boats. The profitability of shrimp exports caused a heavy tilt in mechanised fishing towards shrimp trawling. To begin with, most of the mechanised boats used trawl nets without winches. Very soon trawl winches suitable for small mechanised boats were indigenously developed

and small trawlers became the popular type of fishing craft in India. Initially, 9 H.P. engines were used. Recent years have witnessed an increase in the size of the boats and the horse power of the engine used.

In 1985-'86, there were 183,395 traditional crafts in the country and out of this only 15,292 boats,⁶ i.e., 8.3 per cent were motorised.

One of the important measures introduced to improve the craft system is the Bay of Bengal Programme (BOBP) of the FAO. One of the items in its agenda is the development of modern fishing craft for the fisherfolk who still use outdated boats and antiquated fishing methods despite their growing disadvantages in the changing scenario. The BOBP has been experimenting with alternative materials to timber for boat building and new designs for the boat. A notable step has been the development of beach landing crafts (BLCs) which can be operated directly from beach with no need for fishing harbours.

With a view to furthering the fishing efforts, since 1969 the Ministry of Agriculture allowed import

6. Government of India, Handbook of Fisheries Statistics 1988, op. cit., p. 80.

of specified types of fishing vessel. A number of vessels have been imported under the schemes of import introduced by the Government from time to time. However, several factors like vagueness of the Government policy, administrative delays, tying up of domestic purchase of vessels as a condition of permission for import, protests from domestic shipyards against imports, problems with arranging credit etc. failed the proper accomplishment of the import plans.

The indigeneous trawler industry which was quite in its infant stage at that time tried to block import of trawlers ... on the ground of protection of indigeneous industry and thus all sorts of complicated and unworkable formula including compulsory purchase of indigeneous trawlers as a condition of import of trawlers were introduced. While we were wasting precious years in controversies relating to protection of indigeneous industry, our waters were being poached upon by fishermen of other countries with fast moving and well equipped vessels.⁷

7. From the address by Dr.P.C.Alexander inaugurating the Eighth Indian Seafood Trade Fair, Madras, 10 February, 1989.

The declaration of the EEZ in 1976 which gave India monopoly power for the exploitation of the oceanic resources of a vast area has thrown up great challenges as well as opportunities; for the nation had neither the experience nor the resources for deep-sea fishing. Entrepreneurs have fought shy of venturing into deep-sea fishing due to several problems and risks associated with deep sea fishing such as;

- (i) lack of reliable data on deep sea resources;
- (ii) lack of knowledge about the types of vessels and crafts suitable for exploiting the various resources;
- (iii) high capital investment;
- (iv) lack of experienced manpower; and
- (v) inadequacy of domestic demand for deep sea fishes and problems in the areas of their processing and export marketing.

Because of these factors, chartering and joint venturing have assumed great importance in the development of deep sea fishing as these operational arrangements tend to overcome the above problems.

The terms and conditions for charter were announced by the Government of India for the first time in 1977 and they were modified in 1978 and 1981.

The main objectives of the chartering policy have been:

- (i) to establish the abundance and distribution of fish resources in unexploited and under-exploited areas;
- (ii) to assess the crafts and gears suited for economic operations;
- (iii) to facilitate transfer of technology through training of manpower; and
- (iv) to enlarge deep sea fishing fleet on ownership basis.

According to the policy, the initial period of chartering was three years which could be renewed for two years. To realise the last objective mentioned above, purchase of the chartered vessels by the charterer within specified time was made obligatory. This condition probably had some discouraging effect because the irrevocable obligation to buy vessels, whether or not fishing with chartered vessels would be a success, tended to create considerable risk.

However, the initial response to the chartering policy was good. While the catches were poor in the waters of the developed countries, the declaration of the EEZ shut the fishing firms of developed countries out of the resource zones of the developing countries. Hence, many foreign firms were prepared to offer vessels on charter. And this was a time when considerable interest was aroused in Indian businessmen in deep sea fishing. Chartering looked attractive for them because of the hope of making quick money without large investment or risk. Therefore, despite the procedural hurdles and administrative delays (charter procedure involved over a dozen different agencies) that were characteristic of the Indian environment, a number of charter agreements came into being. However, "many charters from the western countries found the fish catch far less than anticipated and the catches having very little marketability in their own country. No wonder, they foreclosed the charters. As a result, the number of chartered vessels operating in Indian waters came down to 18 (1984) from 69 (1979)."⁸ The number of chartered

8. U.K. Srivastava and Rajeshwari Metha, "Evolution of chartering Policy and Its Implementation" in G.R. Kulkarni and U.K. Srivastava (ed.), op. cit., p. 381.

vessels operating in the Indian zone went up again because of the entry of fishing companies from South-East Asian countries whose operations were profitable, even after paying 15-20 per cent of the catch value to the Indian parties, due to certain favourable factors like their proximity to the fishing grounds, cheap and functional fishing vessels, less paid and hardworking crew, and a ready market for fish varieties from this region. At one time, 110 charter vessels were operating in the Indian waters.⁹

A large number of the chartered vessels operating in Indian waters were Taiwanese and most of these were bull pair trawlers. With a view to diversifying the source of technology and fishing operations, Government restricted grant of charter permission to Taiwanese vessels, particularly to bull trawlers and this has resulted in an increase in the number of specialised vessels such as gill netters, and squid jiggers.

Our experience with chartering has been unsatisfactory; the avowed objectives of the chartering policy could not be achieved to any significant extent. The expected transfer of technology did not take place

9. ibid., p. 380.

"as the secrets of operations of the foreign vessels were not made known to Indian operators. At the same time Indian entrepreneurs also did not bother to look into technology as they were satisfied with what they got in terms of profit and were not interested in technology development."¹⁰ It has been pointed out that most of the chartered vessels were fishing between 30 and 40 meter fathoms. When fishing by these vessels within the 40 meter fathom line was banned, many of the chartered vessels left the Indian waters. Further, the ban on the operation of out-rigger shrimp trawlers also contributed to the decline of business interest in the deep sea fishing operations from the private sector. "The above developments perhaps indicate that the industry is still not very sure about the financial viability of the operations in the deep sea regions and the operational economies of the deep sea fishing vessels presently operating in the Indian seas is dependent on the shrimp catch the distribution of which is largely restricted to the waters within 40 fathoms."¹¹

10. ibid., p. 385.

11. R.G. Dandekar, "Financing of Deep Sea Fishing Vessels", Pigmy Economic Review, May 1987, p. 4.

To exploit India's marine resources more effectively, a new deep-sea fishing policy was introduced in 1987, envisaging the acquisition of 500 deep sea fishing vessels.

The acquisition of vessels for catching shrimp which already has an established market has been discouraged by the new policy in favour of vessels for the rich but lesser known resources such as tuna, squid, deep-sea lobster, perch, pomfret, red snapper and so on. It has been aimed to have vessels of OAL 30 meter and above with more power engines of 550 HP and upwards, designed as stern Trawlers and/or Long-Liners.

In accordance with the above policy, in 1988 Government have issued revised guidelines for chartering of foreign deep-sea fishing vessels in order to achieve optimum utilisation of marine resources in the Indian EEZ, transfer of sophisticated harvesting and post-harvesting technology, augment country's deep sea fishing fleet on resource specific bases within a short period and to boost marine exports, especially of the non-conventional fish.

Chartering of foreign vessels is allowed with the condition that chartering would lead to concrete proposals

for a joint venture collaboration before the end of the first year of operation or acquisition of vessels of similar type and specifications as operated under charter.

Besides charter, new-deep sea vessels may be acquired, (i) from Indian yards, (ii) by import under the General Import Policy, (iii) by import by 100 per cent export oriented units, and (iv) through joint ventures with foreign technical/financial collaboration.

It is obligatory that for every two vessels imported, one vessel should be ordered from an approved Indian Yard. Exceptions to this condition are imported second hand vessels and vessels imported by 100 percent EOUs.

5.3.2. Infrastructural Facilities

Adequate infrastructures such as landing and berthing facilities; facilities for supply of ice, water and fuel; repair and maintenance facilities; storage, processing, transport and marketing facilities, etc. are essential for the development of modern fisheries. The need for appropriate facilities have assumed greater importance with the introduction of large vessels and the increase

in the size of the fishing fleet and the consequent increase in the quantity of fish landings.

It may be recalled that development of harbour facilities and provision of ice and cold storage and transport facilities were among the priorities listed in the fisheries development by the First Five Year Plan. With a coast line of over 7500 k.m., a land area of 3.3 million square k.m., over 2400 fishing villages with a fishermen population of over 7 million and more than 1400 fish landing centres, it has been a difficult task to provide all necessary infrastructural facilities for fish landing, processing and transporting and marketing facilities over a very vast geographical area, besides providing the berthing and other support facilities for the fishing vessels.

Basic infrastructural facilities were very inadequate in most of the fish landing centres when planned development was initiated in 1951. In many areas, lack of basic infrastructure has proved to be a limiting factor in the development of fisheries, otherwise having good potential. Therefore, approach roads, water supply, electrification and fishermen housing schemes were included in the Five Year Plans of the States and State

Fisheries Departments have, therefore, embarked upon the task of creating these facilities.

By now most of the fishing villages are in some way or other linked with existing roads and highways but in many cases they require improvements. The position with water supply is still inadequate.

Apart from general amenities, special amenities are required in fish landing centres. The high cost makes the developing of every fish landing centre into a harbour rather impossible. It is expected that with the provision of self contained fishery harbours, there will be polarisation of fishing activities around the centres and ultimately the number of landing centres would get reduced.

Fishing harbours have been attached to practically all major ports and in most of the minor ports fishing harbour is the most important component.

The progress of development of infrastructural facilities has been very slow. Table 5.1 shows the progress of fishing harbours.

Table 5.1
Fishing Harbours (as on 31-10-1988)

Type of facility	Sanct- ioned (Nos.)	Commiss- ioned (Nos.)	Under construc- tion (Nos.)
Major Fishing Harbours	5	4	1
Minor Fishing Harbours	29	17	12
Small Landing Centres	102	82	20

Source: Government of India, Handbook of Fisheries Statistics,
op. cit., p.41.

The reasons for the slow progress have been many.

It has to be appreciated that construction of ports and maritime works is a slow and time taking process because the work has to be executed adjusting to the daily variation of tides and vagaries of weather and sea involves the hazard of working in water splashing areas. Procedural delays mainly account for the time taken for security of the projects by various formalities to be followed in getting clearances at both state and central levels. The procedure to get a project cleared takes two to four years. Physical causes are non-availability of small experienced and properly equipped contractors to take up maritime works in remote places (no big contractor having the equipment would be interested in taking up small projects), delay in obtaining construction materials owing to remoteness of the site, non-availability of dredgers and right type of equipment for construction and change in design during construction due to change in site conditions and/or fresh oceanographic data. Financial causes are inadequate funds for the schemes or the project both at central or state levels and the financial limitations of the small contractors who take up these jobs. Natural causes are cyclones and storms affecting the work, prolongation of bad weather periods,

unexpected calamities and breakdown of communications during such calamities. Artificial causes are shortage of power, diesel, cement, steel and skilled labour and the fact that many times due to bad planning of work by the contractor himself gets into difficulties. In addition, delays in land acquisition for construction of facilities and litigation by parties against the construction also contribute to slow progress.¹²

The fishing harbours do not have complete ancillary facilities like ice, cold storage, processing plants, transport etc. The harbours/landing jetties also do not have repair and maintenance facilities.

From the point of view of maintaining quality, provision of adequate quantity of ice at reasonable price to fishermen for being taken on-board the fishing boats and for use at the subsequent stages, when catches are transported from the landing centres to the processing plants, is absolutely essential. However, ice is either not available or is available only in inadequate quantities at many of the important fish landing centres in all the maritime states.

12. N.B. Bhakta, "Infrastructure Requirements", Paper presented at the National Seminar on 'Planning Export Strategy for Indian Marine Fisheries', New Delhi, March 11, 1987, pp. 9-10.

We have still a long way in the development of a transport, cold storage and marketing system which is essential for increasing the returns to the fishing sector and making quality fish available at different places at reasonable prices.

5.3.3. R & D, Education and Training

R and D, education and training play a very important role in the development of fisheries. They are very much essential for assessing the resource potential; developing proper input, production processing and marketing systems; and to develop the human resources for the effective management of fisheries development.

Fisheries research in India started in the early part of this century. The research activities during the pre-independence period were, however, mostly species oriented and centered around studies on taxonomy of fish and descriptive natural history carried out by individual scientists working almost in isolation.

A real foundation for research, education and training to support systematic development of fisheries has been laid after Independence by establishing organisations to conduct specialised researches and to impart

Table 5.2

Progress of Facilities

Year	(capacity in tonnes per day)											
	Freezing Plants No.	Cap.	Canning Plants No.	Cap.	Ice making Plants No.	Cap.	Fish meal Plants No.	Cap.	Peeling sheds No.	Convey- ance No.	Cold Storage No.	Cap.
1973	113	546.75	26	109.48	6	53.75	6	29.0	--	329	143	12424.00
1989	228	2296.88	24	83.50	132	1866.50	25	458.0	928	483	300	41838.00

Source: MPEDA

education and training. As many as 14 national institutions and agencies have been set up with specific and specialised functions. There are also five specialised fisheries colleges. Besides, several University Departments conduct fishery related studies.

The aim of Fishery Education and Training in India is to develop skills and proficiency to increase fish production through resource assessment, improved fishing techniques, handling, preservation, distribution and utilisation by applying modern know-how, and by efficient management for achieving greater profitability and social advancement of the fishing community which has been traditionally backward.¹³ To achieve the above objectives, the fisheries education and training in India has been evolved under a four-tier pattern, namely:

- (i) operative technical personnel for the artisanal fisheries (base level);
- (ii) statutorily required personnel for manning ocean going vessels and trained personnel for handling, processing and marketing as well as shore based personnel for maintenance of vessel and machinery and fabrication of fishing gear etc.(under - graduate level);

13. CMFRI, Indian Fisheries 1947-1977 (Cochin: CMFRI, 1977), p. 49.

- (iii) development and managerial personnel to plan and to be in charge of developmental programmes (graduate and post-graduate level); and
- (iv) scientific and technical personnel for stock assessment, exploration, introduction of new technology etc. (post-graduate level)

5.3.4. Fish Farming

As pointed out in Chapter 4, India has a tremendous potential for increasing fish production through fresh water and brackish water aquaculture. Several measures have been taken by the Central and State Governments to promote fish farming.

Fresh water aquaculture production constitutes about half of the inland fish production today. As yields from rivers have declined owing to various reasons such as water destruction, deforestation and increasing pollution, substantial increase in inland fish production can come only from intensive aquaculture.

A very important step taken by the Ministry of Agriculture for development of freshwater aquaculture has been the establishment of Fish Farmers Development Agencies (FFDA). The number of FFDA's increased from five

at the end of the Fifth Plan to 313 by the end of 1989, covering 20 states and one Union Territory.

The FFDA's arrange the required inputs like fish seed, credit and fish feed for fish farmers besides imparting training and providing subsidy for tanks and ponds development and for first year input costs.

Recently, FFDA's were started for brackish water aquaculture also. During 1988-'89, nine brackish water FFDA's were sanctioned in the States of Orissa, West Bengal, Maharashtra, Gujarat, Kerala, Tamil Nadu and Karnataka.

For augmenting the supply of quality fish seed, the Central Government is assisting the State Governments by providing loan of 70 per cent of the cost of construction of fish seed hatcheries.

Although development of fish farming is primarily the responsibility of the concerned State Fisheries Departments, the Marine Products Export Development Authority (MPEDA) has taken a keen interest in the development of shrimp farming with a view to augmenting export production. Besides rendering technical assistance and training for scientific shrimp farming,

MPEDA provides subsidy for new farms development, establishment of shrimp seed banks, establishment of shrimp hatchery and on prawn feed.

Research on mariculture by the concerned agencies are also in progress.

As noted in Chapter 4, although India has immense potential for culture fisheries, expansion of fish farming has been at a very slow pace and the productivity levels have been low.

5.4. An Appraisal of the Development

The preceding sections have provided a glimpse of the objectives of and approach to fisheries development in India and have given some indication of the achievements.

Fisheries have, no doubt, received a development impetus under planning. However, the progress made has been unsatisfactory in several respects.

Fish production has more or less achieved the target in the Seventh Plan. However, in most of the earlier plans achievements fell short of the targets. As is clear from Table 5.3, the increase in fish

Table 5.3
Plan-wise Fish Production

Plan Period	Fish Production (in lakh tonnes)			Average Annual Growth Rate
	Marine	Inland	Total	
1. 1950-'51	5.34	2.18	7.52	
2. End year of I Plan (1955-'56)	5.96	3.43	8.39	2.32
3. End year of II Plan (1960-'61)	8.80	2.80	11.60	7.66
4. End year of III Plan (1965-'66)	8.24	5.07	13.31	2.94
5. End of Annual Plans (1968-'69)	9.04	6.22	15.26	4.87
6. End year of IV Plan (1973-'74)	12.10	7.48	19.58	5.66
7. End year of V Plan (1978-'79)	14.90	8.16	23.06	4.45
8. Annual Plan (1979-'80)	14.92	8.48	23.40	1.50
9. End year VI Plan (1984-'85)	16.98	11.03	28.01	3.94
10. End year of VII Plan (1989-'90)	17.90	14.60	32.50	3.20

Source: Government of India, Handbook of Fisheries Statistics,
op. cit., p. 2.

production was contributed mostly by the inland sector, although a large share of the resources was allocated to the marine fisheries development. Between 1950-'51 and 1988-'89, total fish production increased from 7.52 lakhs tonnes to 31.5 lakh tonnes- an increase of about 319 per cent. During this period, the marine fish production increased only by 240 per cent compared to the 543 per cent increase in the production of inland fisheries. In 1950-'51, the ratio between marine fisheries and inland fisheries in the total production was 7:3. By 1988-'89, it became 5.7:4.3.

In the last four decades, fish production in India increased almost at the same rate of increase in the total world production of fish. But, the average rate of growth figure of the world production does not reveal the real growth pattern. Fish production in several developed countries has been either stagnating or has been growing very slowly while several developing countries have recorded very spectacular growth. Thus, in comparison with several developing countries, India's performance has been poor. The fact that India which was the largest producer and exporter of shrimp until 1985, has lost its premier position, despite the alleged over-emphasis on shrimping in fishing, is a reflection of India's poor performance.

Between 1951 and 1985, while marine fish production in India increased about three-fold, the increase was 400 times in Phillipines, 500 tonnes in Sri Lanka, 800 times in Thailand, 900 times in South Korea and 1000 times in Taiwan.¹⁴

Similarly, while many developing countries have made spectacular progress in fish farming, India has not been able to make a remarkable breakthrough in this area. For example, cultured shrimp production in India increased from 4000 tonnes in 1975 to 23,500 tonnes by 1988, in comparison with China, whose cultured shrimp production was nil in 1975, made a quantum jump from 2000 tonnes in 1980 to 1.8 lakh tonnes in 1988.¹⁵ Relatively small countries like Taiwan, Thailand, Philippines and Vietnam who were way behind India in the past are much ahead of her today.

Despite being such a vast maritime nation with immense potential for fresh water and brackish water aquaculture, India's share in the world fish production is only a little over 3 per cent.

14. S.M. Shukla, "New Dimensions in Fishery Management" in Seminar on Potential Marine Fishery Resources, op. cit., p. 81.

15. Fatima Ferdouse, "Asian Shrimp Situation", Infofish International, January 1990, p. 32.

There is a feeling that the Plan allocations for the fisheries development have been inadequate. The outlay on fisheries by the Central and State Governments ranged between 0.26 per cent and 0.38 per cent of the total outlay except in the Fourth Plan when it was 0.58 per cent of the total. What is more disgusting, however, is that, as is clear from Table 5.4, in all the first six Five Year Plans and the intervening Annual Plans, there were significant shortfalls in the utilisation of the Plan allocations. This consistent shortfalls perhaps discouraged a significant step up in the Plan allocations to the fisheries sector. Although the allocation was raised significantly to 0.58 per cent in the Fourth Plan, compared to 0.38 per cent in the Third Plan and 0.26 per cent and 0.27 per cent in the First and Second Plans respectively, because of the large shortfall in the utilisation, it was reduced to 0.38 per cent in the Fifth and Sixth Plans. In the Sixth Plan the lag in the utilisation was very large and in the Seventh Plan, the share further came down to 0.30 per cent, the lowest for any Plan since the Third Plan.

Table 5.4
Plan Outlays for Fisheries Development Programmes
(Central and States)

(Rs. in crores)

Period	Total outlay	Total expenditure	Outlay for fisheries as percentage of total
I Plan	5.13	2.78	0.26
II Plan	12.26	9.06	0.27
III Plan	28.27	23.37	0.38
Annual Plans (1966-67 to 1968-'69)	42.21	31.67	N.A.
IV Plan	82.68	54.11	0.58
V Plan	151.24	134.98	0.38
VI Plan	371.14	286.95	0.38
VII Plan	546.54	N.A.	0.30

Source: Government of India, Handbook of Fisheries Statistics, 1989, op. cit., pp. V and 52.

The shortfalls have been ascribed to the following factors.¹⁶

- (i) Non-procurement of fishing vessels and research vessels;
- (ii) Non-availability of land for location of research stations;
- (iii) Non-availability of adequate technical personnel;
- (iv) delay in the appointment of staff;
- (v) delay in the construction of rail vans; and
- (vi) savings on loans to fisheries co-operatives and delay in setting up of Central Institute of Fisheries Co-operative.

It is clear that some of the above problems could have been avoided.

Further, the consistent under-utilisation of the resources is also a reflection of the deficiencies in the sectoral development planning and the intrasectoral

16. Indian Institute of Foreign Trade, Survey of India's Export Potential of Marine Products (New Delhi: IIFT, March 1970), pp. 119-120.

resource allocation strategy. If some segments of a sector have limitations of capital absorption due to the absence or inadequacy of supporting facilities or other facilitating factors, resources may be diverted to some other segments where they can be productively employed. Better results could have been achieved by such intra-sectoral reallocation of resources.

Several of the programmes introduced for fisheries development could not be successfully carried forward due to factors such as absence of an effective integrated approach to development, administrative deficiencies etc. Some states set up Fisheries Development Corporations; but except a few all sank under the burden of inefficiency and heavy loss without being able to make any significant contribution to the development of fisheries. Emphasis was placed on the development through fishermen's co-operatives. "Unfortunately, in many states it soon ran aground, the most telling example being in Kerala which, incidentally, was the pioneering maritime state".¹⁷ In the early sixties, the State Fisheries Department supplied indigenously made mechanised boats to fishermen co-operatives in the State. The fishermen were not given proper training in the use and maintenance of these mechanised boats. "Again what it did not provide

17. Mony K. Mathew and M.K.Das, op. cit., p.5.

was working capital and support facilities like maintenance workshop, landing harbours, berthing shelter etc. In less than two years, therefore, as many as 1220 of the total 1448 mechanised boats supplied, were rendered useless. In the normal course, these boats would have had a minimum life of ten years".¹⁸ That no effective measures were taken to make them operational reflects the lack of seriousness on the part of the administration.

Although government policy has been emphatic on the development of indigeneous capabilities, progress in this direction has not been very encouraging. Mr. Peter Gunther, Chief of Fisheries Technology Service of FAO, Rome, who visited India to study the problems in the area of Craft Technology remarked: "I am personally very sorry to see that an important maritime nation like India with a coastline extending many thousand miles and over two lakh people should not be in a position to continuously monitor the requirements of the fishing industry and provide it with indigeneously prepared designs for suitable craft".¹⁹

18. ibid.

19. ibid.

And he further observed: "it happens that some 25 years has passed without either technical expertise or a capacity for fishing boat designs having in any way being created in the country. The fact remains that now, as in 1958, there is practically no qualified naval architect or boat designer in India who knows and understands the problems of the fishing industry".²⁰

A sad state of affairs indeed in view of the number of R and D institutions in the country. To make matters worse, the issue of import vs. domestic procurement of vessels has at times thwarted the development efforts. Certain schemes of import of fishing vessels were opposed by the domestic shipyards; but at the same time they were not able to deliver the goods.

The projected demand for fish by 2000 AD is 12.5 million tonnes.²¹ To meet this, a four-fold increase in fish production over the next decade is called for. This is too difficult a task to accomplish. The demand may not also rise to such a high level unless there will be significant changes in the relative price levels and consumption habits. Certain variables like price will be dependent on the supply factors.

20. ibid.

21. S.D.Tripathi, Inland Fisheries: 'Accent on Intensive Systems', The Hindu Survey of Agriculture, 1989, p.241.

While it is not easy to accurately estimate the future demand because of the complexity of the factors involved, the total demand for fish will certainly increase significantly because of increase in domestic demand and export demand.

The projected figure quoted above is much higher than the current estimates of the total potential of 9 million tonnes consisting of 4.5 million tonnes of marine resources and an equal quantity of inland potential. The immense potential of farm production calls for the reassessment of the potential.

The success in tapping the potential will obviously depend on the size, mix and quality of production paraphernalia the nation builds up and the efficiency with which they are employed.

As noted in Chapter 4, we have not been able to make a dent into the deep sea resources due to factors like paucity of data related to resources, lack of experience and expertise, high capital intensity, marketing problems etc. The estimates of vessel requirements for exploiting the deep-sea resources have also been cited in Chapter 4. Despite the long realisation,

India could not, however, make much progress in expanding the deepsea fleet.

The chartering and joint venture policies have not been able to generate the required response. The terms of chartering are so restrictive that it does not provide any scope for experimentation as, according to the policy, chartering should invariably result in the purchase of the vessel or a joint venture within the prescribed short period. Added to this is the restrictive condition that domestic vessels should be acquired in the ratio of one vessel for every two foreign vessels.

The bureaucratic delays in clearing project proposals also tend to discourage chartering, joint ventures and acquisition of vessels. To cite one example, the delay of nearly two and a half years to clear the proposal of TOMCO to purchase a vessel which it had chartered earlier caused a loss of about Rs. one crore due to the idling of the vessel during this period.²² The MPEDA in its Draft Seventh Five year Plan observed:

22. This case is described by R.D. Pusalkar and T.A.Mammen, "Joint Ventures in Fisheries" in G.R.Kulkarni and U.K. Srivastava, A Systems Framework of the Marine Food Industry in India, op. cit.

It has been the experience of many that because of the very large number of Ministeries, Departments and other agencies involved in clearing the joint venture projects, there is inordinate delays which makes such proposals not very attractive from the foreign investor's point of view... Unless an organisation like the MPEDA is solely made responsible for the development of offshore and deepsea fishing, matters be further delayed in the field of offshore and deepsea fishing.²³

The multi-agency tangle, however, still continues.

Even the vessels which can go into deepsea fishing tend to fish in the inshore areas or nearby areas because of the profitability of shrimping and greater certainty of catches. Although there is zonal regulation imposed by Government regarding the area of operation, it is often, reportedly, violated.

There are also differences of opinion regarding the impact of motorization of traditional crafts and the motorised boats. In this context, a study conducted by the CMFRI on the impact of motorization of traditional crafts in Kerala²⁴ has come to the following conclusions:

23. MPEDA, Draft Seventh Five Year Plan, 1985-'86 - 1989-'90, (Cochin: April 1984), p.8.

24. K.Balan et al., Motorization of Country Craft in Kerala-an impact study (Cochin: Central Marine Fisheries Research Institute), pp. 28-30.

1) Motorisation of country craft with outboard engines does not appear to have so far resulted in sustained increase in total fish production in Kerala. It would have partly helped to effect an immediate spurt in production when the general production level was at the lowest in two decades.

2) Motorisation can be encouraged if it is ensured that the motorised crafts extend their operations beyond the conventional limit to the region of 20-50 meter depth. At the present juncture, as the catch rates are dwindling, caution has to be exercised in promoting indiscriminate expansion of the motorisation programme unless it is coupled with measures for increasing productivity. Today, the encouraging feature to the fishermen is the better catch composition and sharp increasing trend of fish price.

Resource like carangids, seerfish, ribbonfish and sharks have good potential in the 20 to 50 meter depth upto which the motorised boats can go. Gill-netters and hook and line operators can exploit these resources with advantage and in fact such units are already fishing in that area. But the success of the boat seine operations in the present form where it is meant for encircling

pelagic fishes need to be established so that the fishermen can go for fishing with confidence. Thus, extending the area of operation and diversified fishing would be two pre-requisites for enhancing total production through motorisation of the country craft.

3) An important point in favour of motorisation is that it almost eliminates the physical strain of rowing and increases leisure time so that the fishermen will have better health and social life. It has been observed that motorisation has brought an element of dignity to the fishing profession. The youngsters in the fishing villages were reluctant to take up their traditional way of living. With the introduction of outboard motors, the younger generation has shown an enthusiastic inclination towards this profession.

4) Even though motorisation is spreading fast, it is likely that the strictly artisanal sector may continue even though in reduced numbers due to various reasons. Thought has to be given to provide a coastal fringe zone exclusively for the sector using non-motorised traditional craft. This would also act as a compelling feature for motorised boats to go beyond the near shore waters.

5) The motorised craft has better mobility which can facilitate selective fishing so that the increase in revenue can be effected not only through increase in catch but also by change in catch composition having a larger share of high priced fishes subject to availability.

The economics of operation of our mechanised boats has undergone a change but our technology has not changed in accordance with the requirements. "The truth is that most of the mechanised boats operating in the country were developed nearly 25 years ago and are inadequate to meet the requirements of present day as also the years to come. Those days fuel was not costly, nor was timber scarce. The situation on both has since undergone a sea change".²⁵ Although certain R and D programmes like the Bay of Bengal Programme (BOBP) have been designed to find solutions to such problems, they are yet to produce any significant impact on the practical side.

The increasing supply and competition in the world market make cost of supply a critical factor. But the

25. Mony K.Mathew and M.K. Das, op. cit.

obselete and inappropriate technologies and low productivity levels place India at a great cost disadvantage. For instance, commodore K.M.V.Nair, General Manager(Foods), TOMCO, has pointed out that a medium sized (30 meter length) boat should bring in at least 200 tonnes of quality fish per 20 days' voyage. However, unloading takes another 2 days, since it is possible to unload only about 10 tonnes per day manually. Such unloading operations take a mere 6 hours in many foreign ports.²⁶

As pointed out in Chapter 4, only a very small part of the cultivable area has so far been brought under fish farming and the productivity levels are too low. Thus, despite having recognised the importance of aquaculture quite long ago, the progress in this field has been disappointing.

Absence of clear policies on land use, lack of adequate quantity of prawn seed for stocking, lack of technically trained manpower to handle the multidisciplinary functions connected with prawn hatchery and farms etc. have been identified to be major

26. Quoted by Sylvia Jacobs, "Deep Sea Fishing: In Neutral Gear", Update, 24 Jan-6 Feb. 1987, p.9.

constraints on the growth of prawn farming in the country. ... Intensive research is required to develop technology viable under Indian conditions to optimise production from the existing fields and new farms are to be brought under prawn culture.²⁷

Further, a multi-pronged strategy of education, extension and financing is required to transfer the research achievements in the field of aquaculture to the farmers.

In short, although several measures have been initiated for the fisheries development, the development has been hampered by policy distortions and structural weakness of the support system.

27. T.K.G. Nair, "Research Support for Seafood Export Production", in the Souvenir issued on the occasion of the inauguration of the permanent building for the headquarters of CMFRI, Cochin, March 1, 1986, p.25

Chapter VI

GLOBAL MARKET TRENDS FOR SEAFOOD

Seafoods constitute a large sector encompassing a great many different products. Besides the species captured and cultured from sea water, they include fresh water and brackish water captures and cultures.

It is interesting to note that new species and categories have been finding place in the list of popular seafoods and some such new ones have been tending to replace certain conventional ones. The spectacular developments in the field of R and D have resulted in the introduction of new product forms to suit the convenience, tastes and preferences of different consumer segments. Indeed, in recent years the innovation and new product development have been astounding so much so that the seafood consumers get a growing variety of choices.

This chapter takes a look at those salient features of the global market for seafood which have implications for export development planning.

6.1. Trends in Fish Production

The production, international trade and consumption of fish have been growing for over a long period now and

the trends and projections show that they will continue to grow in the foreseeable future.

World fish production increased from 23.5 million tonnes in 1951¹ to 96.5 million tonnes in 1988, 3.5 million tonnes above the 1987 record,² and the 1989 production was close to the 100 million mark³ which only a few years ago appeared as an impossible goal.

The recent acceleration in fish production comes after a trend toward stagnation. In the 10 year period between 1956 to 1966, world catch increased by 86 per cent; in the following period of 1966-76 the increase was only 23 per cent⁴. Much worse, the growth in the decade ending 1980 was hardly 13 per cent or about 1 per cent per annum. However, during the seven year period between 1981 and 1988, production increased by about 31 per cent.

The developing countries accounted for all of the increase in fish production in recent years. With the

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1. Quoted from the FAO yearbook by Government of India, Handbook of Fisheries Statistics, op. cit., p. iii.
 2. Helga Josupeit, "Fishery Commodity Review and Outlook, 1989-90", Infofish International, 1/1990, p. 12.
 3. Globefish, "Fishery Commodity Review and outlook, 1990-9", Infofish International, 2/91, p.13.
 4. Quoted by Bhuta Singh, op. cit., p. 2.

enforcement of the 200 mile EEZ, many developing countries stepped up their efforts to exploit the marine fishery resources. Further, there has been a substantial increase in the aqua-culture production.

The enforcement of the EEZ drove many fishing firms of developed countries out of some of their conventional fishing grounds at a time the fishing grounds of many of the developed countries were exploited more or less to the optimum levels, and in several cases over-exploited, resulting in imposition of restrictions on fishing. As a result, fish production in several developed countries has either stagnated or declined and some countries like Japan turned into a net importer from a net exporter. The only developed country that has shown a substantial increase in fish production in recent years is the U.S; the country's policy to exploit its own resources off Alaska led to a one million tonne jump in landings between 1985-88.⁵

In 1989, the developing countries accounted for 55 per cent of the total world fish catch⁶ while in 1984 this was less than half of the total. Increases in South America and Asia contributed substantially to the excellent performance of the developing countries. The most remarkable

5. Josupeit, op. cit., p. 13.

6. Globefish, loc. cit.

achievement has been that of China which produced 10.4 million tonnes in 1988, one million more than in the previous year.⁷ However, despite development efforts financed by external assistance and substantial potential in many developing areas, African fish production has been lagging behind.

According to FAO forecasts, total world demand for fish by end of the century might be of the order of 100-110 million tonnes.⁸

Japan and USSR, with 11.3 million tonnes each, continued to be world's largest fish producers, but in 1989 China managed to get close to the two and was expected to take over in 1990 because of the aquaculture boom in China.⁹

The future increases in production will have to come, by and large, from increased exploitation of the marine resources of the developing countries and culture fisheries, particularly in developing countries.

7. ibid., p. 13.

8. Quoted in the Seafood News Letter, 15-6-1989, p.15.

9. Globefish, loc. cit.

"Fishery biologists believe that the global production of capture fisheries will stagnate. No one knows at what level this will occur; it could be at 100 million tonnes per year".¹⁰ Therefore the major thrust in future will be on culture fisheries.

Farmed fish, which began to make its mark significantly since the early eighties, has steadily increased its share in the total supply and the indications are that the trend will continue in future. The FAO has estimated that aquaculture products will reach an annual output of 22 million tonnes by the year 2000, doubling present levels. This is an average annual growth rate of 5.5 per cent compared to that of 0.3 per cent for capture fisheries and implies that aquaculture supplies will increase from 13 per cent to 25 per cent of total fish supplies.¹¹ More significantly, in value terms it may exceed 50 per cent of the total value of world fishery production by the end of the century.¹²

10. Anon, "Fish for feed: a help or a hindrance to aquaculture in 2000?", Infofish International, November/December 1989, p. 48.

11. Quoted in Globefish Research Programme, Vol.I (Rome: FAO, July 1989), p. 2.

12. Editorial, Infofish International, 4/1989.

Shrimp, salmon and molluscs are produced in substantial quantities by aquaculture.

In 1981, farmed shrimp accounted for around 2 per cent of the world shrimp harvest. This rose to a massive 22 per cent by 1988, representing around 450,000 tonnes. In this rapid growth area, three new species have emerged as the clear leaders. Black tigers (*Penaeus monodon*) now hold around 33 per cent share of the farmed shrimp originating throughout South-East Asia and they are the fastest growing and the largest of the regular farm raised shrimp reaching upto around 33 cm. Chinese whites are the major shrimp from Chinese sources with around 22 per cent of the market-reaching upto 20 cm., they are smaller than black tigers but still classified as king shrimp. Western Whites are a little larger than Chinese Whites, at upto 23 cm. Originating in the Western hemisphere and especially from Ecuador, they hold an 18 per cent market share.¹³

In 1988, more than 40 countries were engaged in shrimp culture in over 765,000 hectares. The top producers were China (100,000 tonnes), Ecuador and Thailand (70,000 tonnes each). Taiwan and Indonesia (50,000 tonnes each)

13. "Farmed Shrimp Increases Market Share", European Frozen Food Buyer, September 1989, p. 71.

and Philippines and India (30,000 tonnes each).¹⁴ Asian countries account for more than 80 percent of world production of cultured shrimp.¹⁵

According to FAO estimates aquaculture accounts for 79 per cent of molluscs production.¹⁶ It was estimated that by 1990 farmed salmon would represent 17 per cent of the 819,000 tonnes world figure, assuming that the catch of wild specific salmon remains constant.¹⁷

A lot of R and D efforts are going on for farm producing many aquatic organisms and they are expected to make several major breakthroughs to meet the growing diet requirements of the surging world population.

It is estimated that the proportion of the world fish landings used for human consumption has been 71-74 per cent.¹⁸ The remaining part goes mostly into fishmeal, mainly as feed for animals, poultry and fish farming. It may be noted that it is apprehended that shortage of fish feed may become a hindrance to rapid strides in aquaculture in future.

14. Quoted in Infofish International, 5/1989, p.8.

15. Quoted in Seafood Newsletter, 1-6-1988, p.9.

16. Quoted in Globefish Research Programme, *op.cit.*, p.2.

17. Quoted in Seafood International, June 1988, p.24.

18. Anon, "Fish for feed: a help or hindrance", *op.cit.*, p.48.

It has also been estimated that 5-10 million tonnes of fish caught incidently in shrimping operations are thrown back into sea as dead.¹⁹

6.2. International Trade in Seafood

The last two decades have witnessed a spurt in the international trade in fish and fishery products. It leap-froged from \$ 1.3 billion in 1960 to over \$ 22 billion in 1986.²⁰ Total value of fish exports in 1989 was at about the level of \$ 32.3 billion reached in 1988²¹ and "the outlook for 1990s is one of continued impetus to both fishery production and trade".²²

The enforcement of the EE zone gave an impetus to international trade in seafood because the major fish consuming nations, having been denied the opportunity to fish in the EEZ of other nations, have had to resort to import to make good the domestic demand-supply gap. For instance, Japanese imports of fishery products began to surge in the latter half of the 1960s when the 200 mile

19. Bhuta Singh, op. cit., p.3.

20. Quoted in Seafood Newsletter, 15-6-1989, p.15.

21. Globefish, loc. cit.

22. Josupeit, loc.cit.

fishing zones were first established and by 1971 her imports surpassed exports in value terms. Between 1965, the year before the introduction of the EEZ, and 1988, Japanese seafood imports advanced almost ten-fold to 2.4 million tonnes worth \$ 8 billion²³ and Japan is today the largest importer of marine products.

Developing countries as a group account for about 45 per cent of the fish exports. This share has not changed in recent years, indicating that the increase in fish trade is equally shared by developing countries and developed countries.

Developed countries accounted for 90 per cent of the total fish imports in 1989, compared to 85 per cent in 1980.²⁴

Japan, the U.S. and the EEC together account for more than 75 per cent of the total imports.²⁵ Japan and the U.S.; the first and second largest importers, together account for nearly half of the world imports of fish.²⁶

23. Quick Frozen Food International, July 1989, p.60.

24. Globefish, loc. cit.

25. Josupeit, loc. cit.

26. Anon; "The USA", Seafood International, June 87, p.31.

An interesting feature of the international trade in marine products is that some of the major importers are also substantial exporters. Thus, the U.S., the second largest importer, with exports worth \$ 2,200 million emerged as the largest exporter of marine products in 1988. (Prior to 1988, the largest exporter was Canada) Overall, North America makes up for 15 per cent of world fish exports.²⁷ Some other major importers like Japan and several EEC countries are also important exporters. Inadequacy of the domestic supplies of the items in demand and domestic harvest of items which are either not consumed or are not in high demand locally but are in good demand in foreign markets are the most important factors causing this situation. It was estimated that despite being the largest exporter, by 1990 well over 80 per cent of seafood consumed in the U.S. was likely to be imported.²⁸ There are also cases like Singapore where large part of the imports is for re-exports.

27. Josupeit, loc. cit.

28. 'The USA', loc. cit.

International trade in marine products will continue to expand because of the growing demand in the major consuming markets which will not be completely met by domestic sources of supply. In several major markets, the demand-domestic supply gap is projected to widen indicating their increasing dependence on imports in future.

6.3. Competition

There are several aspects of competition to be considered. There is competition between seafood and other categories, between different species and product forms of seafood, between exporting countries, between exporters in the same country, between importers, between importers and exporters, and so on. The international market for seafood is characterised by growing competition in all these respects.

The lucrative trade in seafoods has attracted many countries. It is doubtful whether there is any other product group exported by such a large number of countries as seafood. In 1988, Japan alone imported fishery products from a total of 125 countries and regions.²⁹ Hard-pressed

29. Quoted in Seafood Newsletter, February 1, 1990, p.11.

to earn foreign exchange, many developing countries have been trying to share the expanding international seafoods market. Several Asian countries like Peoples Republic of China, Taiwan, Indonesia, South Korea, Philippines etc. have made rapid strides in exports. Many Latin American countries have also made significant progress and African countries are on the move in this direction. As noted already, several developed countries are large exporters.

The rapid increase in farm production, mostly by developing countries, has recently led to oversupply and resultant market slump in respect of certain species like shrimp and salmon. This problem is likely to recur in future because of further advances in aquaculture. More than 40 countries³⁰ are already engaged in shrimp farming and several others are planning. Thus, the growing competition between suppliers is an important feature of the seafood market.

It appears that, as a strategic move to diversify the sources of supply, to reduce the dependence on a few sources, like India for shrimp, Japan encouraged and assisted development of fisheries in other countries,

30. Quoted in Infofish International, 5/1989, p. 8.

particularly in the South-East Asia. The spurt in the farmed shrimp production has very significantly altered the market forces in favour of the buyers. India which was the number one supplier of shrimp to Japan until 1985 lost its premier position. In 1987 India's shrimp exports to the two major markets, Japan and U.S.A. remained at the same level of 1978 (108.8 million pounds). During this period, exports to these markets by Taiwan shot up from 15.8 million pounds to 145.6, of Peoples Republic of China from 20.2 million pounds to 103.9 pounds, of Ecuador from 10.9 million pounds to 102.2 million pounds, of Thailand from 23.2 million pounds to 49.6 million pounds, of Philippines from 6.1 million pounds to 31.6 million pounds and of Australia from 17.4 million pounds to 23.2 million pounds.³¹

South-East Asian Countries with their proximity to and close contact with the Japanese market and lower costs of production enjoy a definite advantage over India.

The progress of shrimp farming has made it possible for suppliers to get the required type of shrimp at the required quantity and time and this has significantly reduced the inventory requirements. This has enabled traders with small means also to resort to import directly. Direct import by small traders in Japan has been facilitated

31. LMO Shrimp Market Report, Seafood International, October 1988, p.19.

by the emergence of large number of shrimp farmers in the neighbouring countries with whom contacts could be easily established. It may also be noted that with the removal of import restrictions on seafood by Japan in the 1960s, many small traders entered the import business and as a result some of the large corporations even gave up some of their seafood imports as they found it difficult to compete with the small firms. As noted elsewhere in this chapter, new channels have developed in some markets.

Development of food processing industry in developing countries has generated a new set of competitors to firms in developed countries. For example, lower cost Asian producers like Thailand are providing tough competition for U.S. tuna canning firms.

Further, the development of seafood packing in the raw material producing developing countries has been affecting raw material supplies to packers in developed countries.

In an attempt to contain production costs and maintain market shares, U.S. packers are actively seeking to relocate the loining component of their operations to the lower cost countries in the Carribean and South America. There has

been a similar trend in Japan, although the direction of location is different.

Besides competition between exporting nations, there is competition between the national exporters. For example, as on 31.3.1989 there were 788 registered exporters in India. The average export done by an exporter is much less than Rupees one crore a year. The existence of such a large number of exporters for a small volume might erode their bargaining power vis-a-vis the importers, particularly when the market conditions are unfavourable.

Seafood as a product category faces competition in the market from other products like animal and poultry meats and vegetable foods. The demand for seafood depends, inter alia, on the weightage it enjoys in the consumer basket. For example, seafood may gain at the expense of consumption of other types of meat and vice versa. For instance, although the per capita consumption of seafood has been on the increase, Japanese seafood market tends to peak, according to some reports, as young consumers like to eat meat.³² The share of a

32. Anon, "Japanese seafood market seen peaking as young consumers like to eat meat", Quick Frozen Foods International, January 1990, p. 106.

product in the consumer basket depends to a large extent on the USP the product can offer and the consumer perception about the product. As described elsewhere in this chapter, the health attributes have helped to increase the consumption levels of seafoods. On the other hand, a steady barrage of negative publicity regarding seafood-borne illness and marine pollution have had adverse effects. Several market analysts feel that seafood consumption can be further stepped up by consumer education.

There is also competition within the seafood sector like, between different species; within the species between products with different attributes like size, shape, colour, appearance etc., between product forms like live, fresh, frozen, canned, cooked, package type, microwaveable, delicacies etc. The competitive dynamism of the seafood market is boosted by the flood of innovations leading to new product introductions and new marketing strategies.

6.4. Consumption Trends

The consumption of seafood has been growing steadily over the last 20 years, an indication also of consumers' confidence in its nutritional benefits and wholesomeness.

However, the per capita consumption of seafood varies from very negligible quantities in many, particularly the developing, countries to fairly very large quantities in a number of, mostly developed, countries.

World average per capita fish consumption was estimated at 12 kg for 1986. In most of the major export markets, this, however, is substantially higher.

Japan has, reportedly, the largest per capita seafood consumption in the world*- over 80 kg.³³ per annum.

Within the Western Europe, per capita consumption varies considerably from country to country. It was 43 kg in Portugal (1987),³⁴ just under 40 kg. in Sweden and Denmark (1986),³⁵ 50 kg. in Norway (1986)³⁶ and 13.2 kg. in West Germany (1986).³⁷ In the U.S. it was only 15 lb. in 1988.³⁸

* According to figures quoted in the Quick Frozen Foods International, January 1990, the per capita seafood consumption in the tiny island Iceland was 88 kg. in 1987, compared to 71.6 kg in Japan.

33. Ichiro Kano, "Newly Emerging Seafood Markets in Japan", Infofish International, 5/1989, p.13.

34. ibid., p. 13.

35. "Germany: Consumption continues to climb", Seafood International, August 1987, p. 18.

36. ibid., p.18.

37. ibid., p.18.

38. Quick Frozen Foods International, January 1990.

The per capita consumption of seafood has been growing in the major markets and the trend is expected to continue in future. For example, according to the forecast by the U.S. Department of Agriculture, the U.S. per capita consumption would rise by more than 44 per cent by the year 2000.³⁹

Although the overall trend has been one of rise in per capita consumption of seafood, there have been occasional setbacks due to some reason or other. For example, in West Germany it increased steady from 10.6 kg. in the early 1980s to 13.2 kg. in 1986 but following the worm scare in 1987 it fell to 12 kg. in 1988. As pointed out earlier, negative publicity regarding seafood-borne diseases and pollution can adversely affect consumption. This clearly indicates that seafood exporters should ensure the hygiene and quality of the products and build up consumer confidence.

Demand for seafood has also been found to be income elastic even in countries like Japan and U.S.A. There are also seasonal fluctuations in demand, demand usually rising during certain festival seasons. The long mourning

39. Quoted in the Frozen Food Age, January 1989, p.44.

by the Japanese of the demise of their emperor had also affected seafood consumption in that country during that period.

Growth in the consumption demand for seafood has two major components, viz., increase in the number of consumers and increase in the per capita consumption. The number of consumers can increase either by an increase in the proportion of consumers to total population, or by an increase in the population, ceteris paribus, or by both.

Although population tends to saturate in some of the countries, it is growing in most of the countries. The world population which was estimated at 5.1 billion in 1988 is expected to increase to about 6.2 billion by the year 2000. If the per capita consumption remains stable there will be a substantial increase in total demand for seafood by the turn of this century because of population growth alone-- about 21.5% between 1988 and 2000. The increase in demand will be much higher if there is an increase in the per capita consumption which may be reinforced by an increase in the proportion of consumers to total population. The population increase will be mostly in the countries with low per capita consumption levels.

As indicated earlier, in the major markets, per capita consumption has been growing, in general, for quite some time. This trend is expected to continue in the nineties provided consumers are properly educated about the seafood, including preparation and usage; supplies are sufficiently kept up at affordable prices; quality aspects are well taken care of; and, the markets properly respond to the potential consumer requirements.

6.4.1. Factors Contributing to Growth in Consumption

It would be interesting to examine the factors which have contributed to the strong trend in seafood consumption.

6.4.1.1. Health Consciousness

The growing health consciousness of the population is regarded as a major force behind the growing popularity of seafoods in Japan, the U.S. and Western Europe. Consumers are becoming more aware of the benefits to health from eating seafood. " Medical evidence is accumulating which demonstrates that the class of fatty acids found in fish and popularly known as Omega-3s, is a key element in the prevention of heart

diseases and other 'western style' illness".⁴⁰ According to nutrition expert Joyce Nettleton, fish is rich in most of the vitamins we require, it contains a good selection of minerals, proteins and all the amino acids in the right proportions.⁴¹ It is, then, but natural that the health conscious people will be drawn to seafood. In Japan, "there is, in fact, a nationwide craze in eating health foods... . Many stories on the curative powers of seafood, including octopus, flatfish, eel and tuna, continue to lure more and more consumers".⁴² Similarly, it is pointed out that "the aging US population where people are concerned with their health and fitness, will be drawn to the fish department more often in future. And they will be as demanding of high quality convenient seafood products as they are of their premium wines and hightech health clubs today".⁴³ The situation is similar in Europe too.

The implication of this acceptance of fish as primarily a health food is that it is no longer regarded

40. Joyce Nettleton, "Seafood- a question of health?" , Seafood International, March 1988, p.45.

41. ibid., p.45.

42. Kano, op. cit., p.15.

43. Anon, "Sales net to soar in U.S. super markets", Seafood International, October 1988, p.24.

as a cheap food consumed by low income population and the giffon's paradox will no longer operate in respect of fish. It is pointed out⁴⁴ that fish, in fact, used to be the only cheap source of protein for common people in Japan until some 20 years ago and in the 1970s many consumers abandoned fish for more expensive animal meats with the growing affluence. In the last decade, there was, however, a reversal of the trend.

It may be noted that, in the U.S. the per capita fish consumption now is very low (15 lbs. in 1988) compared to other meats (215 lbs.)⁴⁵ This indicates the scope for a shift in favour of seafood.

6.4.1.2. Eating out

The growing trend of eating out has been playing a major role in popularising seafood in all the three major markets. Eating out provides opportunity to sample new seafood dishes and it "plays a high part in seafood consumption trends as ever more refined, ever more subtle and ever more exotic fish dishes are on offer in ... hotels and restaurants to mould consumer tastes."⁴⁶

44. Kano, op. cit., p.13.

45. Quoted in Quick Frozen Foods International, January 1990.

46. "Germany: Consumption continues to climb" op. cit., p.18.

For instance, hotel and restaurant trade and also the specialist retailers have helped to pave way for the greater acceptance of 'fine' fish in West Germany. Cat fish, sea bream and monk fish are just three examples of species which are finding increasing favour with West German consumers.⁴⁷

Although the proportion of the food budget spent on eating out by Japanese is much lower than the Americans who spend about 25 per cent of the food budget⁴⁸ on eating out, the gap has been narrowing fast; this ratio increased from 11 per cent in 1975 to 14 per cent in 1980 and 16 per cent in 1987. In Japan, eating out which "was conventionally done on special occasions such as wedding and festivals has now become a somewhat daily routine".⁴⁹

Hotels and restaurants represent a very large market segment for seafood in these countries. Three quarters or more of the total shrimp supplies in these markets, for example, are absorbed by the institutional sector.⁵⁰

47. ibid., p.18

48. "Japanese Seafood market seen peaking as young consumers like to eat meat", Quick Frozen Foods International, January 1990, p. 106.

49. Kano, op. cit., p.15.

50. International Trade Centre, Shrimp: A Survey of World Markets (Geneva: ITC, 1983) p. 19.

A survey sponsored by Delta Pride Catfish Inc. has found that on an average seafood accounted for 45 per cent of the daily sales of leading chefs in the U.S.A.⁵¹

"Americans seem to trust chefs to serve them good quality, clean, safe seafood Americans may be less comfortable in purchasing and preparing seafood for home consumption because they may not feel confident in selecting or preparing it".⁵² There are different categories of hotels and restaurants in the major markets to cater to the differing pockets and preferences of consumers.

6.4.1.3. Technological Factors

Technological factors played a very important role in the development of the seafood market. The development of the freezing technology gave a boost to the international trade in seafoods. The growth in the number of cold storages and households with refrigerators enormously helped the sales to households. Besides the freezing technology, development of other processing and packaging technologies also helped seafood marketing very significantly. Further, innovations in product forms and new product developments, like surimi, gave an impetus to the expansion of demand for seafood.

51. Anon, "Restaurant seafood consumption up while sales keep falling", Frozen Food Age, July 1989, p. 78.

52. ibid, p. 78.

6.4.1.4. Rise in Income

The rise in the disposable income is another important factor that contributed to the increase in the fish consumption. Demand for fish is income elastic and with increase in income some upgradation of consumption, i.e., shift to high value items, has also been taking place. For example, significant income effects have been noted in a recent household survey conducted in Japan. Accordingly, income elasticity of frozen shrimp is the highest (0.8) followed by tuna and Salmon (0.2 each). Meanwhile negative income elasticities are evident for mackerel (-0.4) and sardine (-0.6).⁵³

6.4.1.5. Increase in Supply

Increased consumption has been encouraged and facilitated by increase in supply. Supply increases lead to more promotion because of the increase in competition and more consideration for consumer needs. Further, it also tends to reduce prices and increase demand. For example, the marked increase in the shrimp supplies, resulting from aquaculture, recently has reduced prices and increased consumption.

53. Kano, op. cit., p. 13

6.5. Consumer Preferences and Demand Patterns

Eating habits, consumer preferences and the resultant demand patterns vary greatly from one market to another. Certain species which are in great demand in some markets may be non-existent in certain markets. Even when the same species is widely used in different markets, product forms and product attributes demanded may vary significantly. Further, within a market, there may be different segments on the basis of demand patterns, for the same species. Again, consumer preferences may change over time.

Shrimp is in great demand in all the three major markets. In fact, shrimp represents about one-fifth of the total international trade in seafoods in value terms. There is no substantial difference in the total quantity of shrimp absorbed by each of these three markets, although the per capita consumption figures vary greatly.

Product requirements vary considerably among markets and from one segment to another. Headless shrimps are sold primarily in Europe but not in certain countries like Spain. There is no market for this in Spain. In Spain consumers prefer whole shrimps with head and shell

on for use as appetizers, as ingredients in a dish or as the main course. In most cases, the Spanish consumers peel the shrimp while eating it. In France, there is similar, though less marked, preference for whole unpeeled shrimps. In the U.S., on the other hand, whole head on shrimps are virtually never served, and greater proportion of the demand is for breaded shrimp. In Japan, shrimps are eaten in different ways, headless shrimp accounting for the bulk of demand. A small but high priced market for whole shrimp including live ones also exists.

Shrimps are imported mainly frozen- block frozen, individually quick frozen (IQF) or semi IQF. The greater proportion of shrimps in international trade is in headless, shell on, frozen form.

In Japan, unlike in the U.S., shrimps are not distributed to consumers in packages or other convenience forms. In Japan, imported frozen bulk packs are thawed and offered for sale loose.

There is considerable difference between the product attributes the Americans and Japanese value. In the U.S. market, correct weight and bacteriological factors are more important than eye appeal, colour, uniformity of size and arrangement of the shrimp which are very important in Japan.

This aspect of the behaviour of the Japanese consumers is true of other water species and food items in general. For example, brighter the colour of the tuna meat, the higher the tuna is priced. Japanese began to eat red coloured sea bream for celebrations as red was considered a colour of good luck. Accordingly, sea bream with a faded red colour is low in product value and is used only for slices. The Japanese also place great importance on how the fish looks on the dinner table so that fish with scars on the skin or missing fins has a low product value. Further, there are size preferences for many species. In the case of tuna (albacora, big-eyed tuna, yellowfin and bluefin tuna) the Japanese buyers prefer those weighing at least 50 kg. Served on merry occasions, sea bream should not be too big or too small, optimally around 300 gm.⁵⁴ It is pointed out that there is a difference in the attitude towards packaging between the American and Japanese. In the opinion of Yamazaki Nabisco's Russ Kane, much better quality of packaging is needed in Japan. The U.S. consumer sees the pack as a "means of getting the product home, and does not want to pay extra for packaging, at least for staple items. But

54. JETRO, "Access to Japan's Import Market: Frozen F (Tokyo: JETRO, January 1984), p. 22.

the Japanese consumer wants the presentation to be quality one both before and after the package is opened."⁵⁵

One very important feature of the consumer behaviour in Japan is that the most popular way of consuming fish, particularly tuna, is to eat it in raw slices. This special way of consuming fish has deep impact on the fish business in this country. For example, the product value of tuna for canned tuna and other processed products is much lower than that of tuna for raw consumption. Tuna for sashimi must be fresh. The demand for high value sashimi has been growing tremendously despite increasing prices. Blue fin, the main raw material for it, is becoming short in supply all over the world as the species is protected by stringent catch quotas.

Because of the factors mentioned above, it is but natural that there is a great demand for live and other fresh tuna in Japan. Countries like Indonesia are cashing on this by airfreighting fresh tuna to Japan.

Certain species have luxury/fancy value in some countries. In Japan, for example, some consumers are

55. JETRO, Key to Success: Japanese Food Styles (Tokyo: JETRO, 1983), p.17.

"seemingly willing to pay any amount of money for particular delights"⁵⁶ and because of this kind of indulgence in food, many still continue to eat the poisonous and expensive puffer fish, known to the responsible for two digit deaths in Japan annually.⁵⁷ Large size shrimps command a premium price in all the markets. In Japan, however, there is said to be a fancy price for large, live, egg bearing shrimp. Similarly, there is a luxury image associated with salmon which is regarded as the 'king of fish', the major markets for which are Europe, U.S.A. and Japan.

There has been some shifts in the demand pattern for different product forms. The share of frozen fish has been falling and that of the other processed forms has been rising. Thanks to qualities such as durability, easy storage and preparation and the availability of a large variety of products, canned fish has become popular throughout the world with about 13 per cent of global fish catch ending up in cans.

The value added products segment of the market is expected to expand rapidly in future. More and more

56. Kano, op. cit., p. 15.

57. "Fish Canning", Infofish International 9/1988, p.45

new species and product forms are being added to the list of seafood. In fact, the shortage of some of the species have been made good by the substitution of new ones. Further, seafood technology have been making remarkable strides, introducing new product forms to the market. It is observed that surimi processing technology could play an important role in increasing the consumption of fish and fishery products by effectively using the under-utilised non-traditional species.⁵⁸ Surimi, mechanically deboned, washed and stabilised fish flesh, is widely used as in intermediate product for a variety of fabricated seafoods, including 'Kamaboko', fish sausage, crab legs and imitation shrimp products. The use of frozen surimi in recent years has increased significantly worldwide, although the Japanese market still plays a leading role. In 1988, the U.S. consumption of imitation crab and other surimi-based seafood was an estimated 135 million pounds.

The convenience sector is becoming more and more important with regard to seafood, and more and more high grade dishes are taking the places of simple fish recipes.

58. Infofish International, 5/1989, p.16.

There are also seasonal fluctuations in the demand for seafood. For example, market activities in Japan follow a seasonal consumption pattern depending on traditional celebrations/festivals. Consumer demand normally peaks during the final quarter of the year. During this period prices tend to rise. Other peak periods are April/May and August/September.

6.6. Major Markets

The three major markets for seafood are Japan, U.S.A. and Western Europe. These markets together absorb most part of the important commodities traded internationally.

The per capita consumption of seafood has grown steadily in these markets and is expected to grow further in the nineties. Per capita consumption is substantially high in Japan and it is fairly high in the EEC countries. Although the per capita consumption in the U.S. is lower than the world average, in absolute terms the consumption is very high because of the size of the population, and it is the second largest importer of seafood.

The share of these markets in the total world consumption of certain species has been steadily rising.

For example, the combined usage of shrimp in the three principal markets in 1980 was about 450,000 tonnes or nearly 45 per cent of the world production. This shot up to 773,000 tonnes or 61 per cent in 1988 and it is estimated that by 2000 they will require nearly 80 per cent of the expected production of 2,700,000 tonnes, unless shrimp farming expansion increases much faster than this projection indicates.⁵⁹ An increasing proportion of shrimp consumption in these markets is met by imports.

All the three major markets have some traditional trade links with their major importers because of political, cultural or geographic factors. However, with the emergence of new market forces, sources of imports are being diversified. Similarly, there have been changes in the distribution channels.

The following sections of this chapter give a more detailed account of each of the three major markets.

6.6.1. Japan

As noted earlier, Japan is the number one fish

59. Charles J. Peckham, "Shrimp: Global supplies, Usage Outlook and Overview of Changing Conditions", Quick Frozen Foods International, January 1990, p.70.

importing nation of the world. Her imports of marine products surged starting in mid 1960s and surpassed fishery exports, in value, in 1971. While, shrimp, skipjack and tuna have led the upswing, imports of North Sea products such as herring, salmon, trout and fish eggs have also grown steeply since 1977.

Seafood imports to Japan has been rising not only absolutely but also relatively. The ratio of fishery imports to total Japanese imports has risen from 5.40 per cent in 1986 to 5.80 per cent in 1987 and 5.84 per cent in 1988.⁶⁰

In 1988, imports of seafood by Japan were valued at 1,175,429 million yen. Shrimp represented 23 per cent of this; salmon about 11 per cent; tuna 7.3 per cent; crab 4.7 per cent and cephalopods 4.7 per cent (octopus accounting for 77 per cent of the cephalopods and 3.6 per cent of the total).⁶¹

Japan, which was the leading market for shrimp in the world until 1980, is now second to U.S.A. However, the per capita consumption of shrimp in Japan is much higher than in the U.S. In 1988 it was 2.23 kg. compared to 1.27 kg. in the U.S.⁶²

60. Kano, op. cit. p.12.

61. Peckham, op. cit., p.64

62. ibid., p.64.

Domestic landings of shrimp in Japan peaked in 1963 at 50,000 tonnes. Thereafter, production drifted downward almost annually through 1988 mainly because some of her traditional shrimping grounds off the coasts of China, the USSR and Alaska have been closed to them. The annual landings have levelled off at about 31,000 tonnes (average for 1979-88) and are not expected to increase or decrease significantly in the future.⁶³

Japan now relies on foreign supplies to fill 90 per cent of her shrimp requirements. Her annual usage of shrimp increased about 64 per cent between 1980 and 1988. Even with a population growth rate of 1 per cent per year, Japan's annual shrimp usage is projected to reach about 400,000 tonnes by the turn of the century.⁶⁴ Hence, imports to Japan will further increase.

Almost three-fourths of Japan's imports of shrimps originate from the Indo-Pacific region.⁶⁵ China which played only a negligible role in the shrimp scene is now

63. ibid., pp. 64 and 65

64.

65. ITC, Shrimps: A Survey of World Markets (Geneva:ITC,1983) p. 29.

the top supplier. India which was the top supplier until 1987 lost the premier position as she could not increase her production considerably. Almost the whole of the recent increases in shrimp imports to Japan was contributed by farm production. In 1989, there was even an oversupply as the countries which have stepped up their aquaculture output tried to sell it in Japan. In 1981, only 6 per cent of the Japanese imports were cultured shrimps but in 1986 the figure was almost 35 per cent.⁶⁶

The most popular product form of shrimp imported is raw headless shell on, constituting about 70 per cent. Head on shrimp account for about 10 per cent and is rapidly increasing owing to popular demand, the improving quality of imported products and technological improvements of available freezing facilities in an increasing number of supplying countries. About 10-15 per cent of the volume traded consists of peeled shrimp.⁶⁷

66. Arpona Sribhibhadh, "Globefish perspective of the World Market", Shrimp 88 (Kualalumpur: Infofish, 1988), p. 16.

67. Sjef Van Eys. "Japanese Shrimp Market" Infofish Marketing Digest, 4/1987, p. 21.

Japan is the largest market for cephalopods. Japan which is the major producer of cephalopods is also the largest importer in 1988, about 30 per cent of the world imports were absorbed by the Japanese. Per capita consumption of this category in Japan increased from 6.2 kg. in 1981 to 8.2 kg. in 1987.⁶⁸

The major world exporters of cuttlefish are Thailand and Morocco. Major exporters of squid are Poland, New Zealand and Argentina. In the export of octopus the leader is Mauritania followed by Morocco.

According to 1987 figures, Japan is the largest market for tuna representing nearly one third of the total tuna usage in the world. Quantity imported in 1987 was equivalent to about one-third of the total quantity consumed.

In Japan, tuna is used in two ways. One is for sashimi, that is raw fish, and another is as raw material for processed tuna, mainly canned tuna. Only such tuna as caught with long lines and frozen as low as -50°C are used for sashimi. Tuna caught with purse-seines are used

68. "Global market increases for Cephalopods outplacng gains for most other species", op. cit., p. 116.

for raw materials. The species of tuna used for canning are mainly skipjack and yellow fin. Japanese canning industries use principally skipjack and their products are exported to the U.S. The export of tuna, however, has been facing problem because of appreciation of yen and competition from countries such as Thailand.

The main suppliers of tuna are South Korea and Taiwan. They mainly export sashimi tuna. Being very heavily dependent on imports, Japan has been taking measures to increase the supplies from the exporting countries. Japanese have invested in numerous joint ventures in shrimp producing enterprises in South Asia, Oceania, South America and Africa. Japan has also pioneered the development of shrimp culture technology and exported the knowledge to many nations which are now producing shrimp for the Japanese and buyers in other world markets.

One of the very important recent developments in the Japanese market has been the emergence of new marketing channels. Fish used to be channelled from producers/importers via wholesale markets to the end of the chain i.e., the consumer. Recently, however, more outsiders such as trading houses, and retail chains have emerged, resulting in the creation of new channels. In the

exceptional case of shrimp, for example, 80 per cent of product traded are said to be now through these new channels.⁶⁹ This eliminates the middlemen, thus increasing the possibility of lower final retail prices.

It is pointed out that one aspect of traditional Japanese behaviour that is as important as even today is gift giving. As for a number of imported food and beverage products, one key way into the consumers hands is through being bought as gift, especially at the two gift giving seasons of the year, mid year (O-chugen) and end year (O-seibo). At both these times, gifts are sent from household to household, from company to company and from individual to individual and food and beverage items are popular choices, including some products for general household consumption that would not be considered appropriate gift items in Europe or America.⁷⁰ Melitta's Dr. Hirschbuehl comments: "The gift giving tradition means special opportunities for foreign products. It is important to get into the Departmental stores' gift catalogues because that is how a lot of people choose. It is a unique opportunity. You can move not inconsiderable quantities, and it

69. Ichiro Kano, op. cit., p.14.

70. JETRO, Key to Success: Japan's Food Styles, op.cit., p. 11.

allows you to make the contact with the consumers that can make the product a permanent part of their lives. Of course, this connection may or may not happen, but it gives you a chance".⁷¹

However, there has been some marked change in the shopping habits of Japanese house-wives. Traditionally fish was bought at the nearby fish shops which were small family operated concerns which stocked fish from the nearby wholesale markets. The fish shop owners and consumers usually enjoyed a good rapport and as such the former's recommendations were greatly valued. This practice, however, is gradually changing and house-wives, particularly in the age group of 20-40 years who purchase the largest volume of fish for the family, are increasingly moving to the supermarkets. This trend is associated with the changing life style of the house-wives who are busy and are particular about convenience and ease. Fish sold at super-markets are usually consumer packed, easy-to-cook and often pre-cooked products, not fresh whole fish which generally are a great inconvenience for house-wives. Here the consumer relies on her own

71. cited in JETRO, ibid., p.11.

judgement when choosing seafood; the choice is normally made on the basis of colour, cleanliness, size, apparent freshness, packaging and product brand. It is pointed out that it is safe to predict that as more and more people appreciate supermarket shopping, product representation will be an important consideration with the final consumers.⁷²

There have been noteworthy changes in the composition of product forms traded in major wholesale markets. These include a decrease in frozen fish and increase in processed forms such as surimi, dried salted and canned products. Following the development of freezing technology, the amount of frozen fish dealt within these markets increased until the end of the 1970s before gradually dropping although there were some fluctuations. Processed products, on the other hand, have been on an upward trend.

Two new segments have emerged in the Japanese seafood market namely high value seafood segment and value added products market. The high value segment includes expensive species in expensive product forms. As domestic production

72. Kano, op. cit., p.15.

is far below the requirements, large imports of these products are expected to significantly increase in the next several years. This category includes large shrimp, lobster, crab, crawfish, sea urchin, roe and jelly fish.

Typical products in the value added category are surimi-based products such as artificial crab legs and scallops and breaded shrimp, as well as ready to eat products. Production sites of these will move to the developing countries who will be able to expand their business line taking advantage of the lower cost of production.

The preceding paragraphs have shown that Japan is a very large, growing and very dynamic market for seafood.

The assessment of the Japanese market is that "as far as the market for imported seafood is concerned, besides conventional large markets for shrimp and tuna in frozen product forms, there is much potential to be tapped in Japan's growing market for high value added products. The dwindling supplies of expensive seafood resources in Japan (except culture products), the ever increasing domestic demand for seafood as well as prohibitively high local production costs are bound to

strengthen and increase ties between overseas suppliers and consumers in Japan".⁷³

6.2.2. U.S.A.

The United States of America is the second largest importer of seafood in the world. It was estimated that in 1990, well over 80 per cent of the seafood consumed in the U.S. would be imported.⁷⁴

Imports of seafood to the United States come from 110 to 120 different countries. The variety of imported fishery products are many. They range from extremely large amounts of raw materials such as block -frozen tuna and shrimp for further processing into end products, to other finished packaged products of all types such as canned, smoked, cured, fresh, frozen, dried or otherwise processed.

The main import categories are tuna, shrimp, ground-fish, fillets, blocks and slabs, canned products (tuna and sardine) flounder fillets and salmon.

In terms of value, shrimp ranks first in imports. Indeed, the U.S. which uses nearly 25 per cent of the

73. ibid., p. 15.

74. "The U.S.A.", Seafood International, June 1987, p.31.

world's annual supply is the largest national market for shrimp.⁷⁵ Despite heavy domestic production, it meets only 30-35 per cent of national requirements. In 1979, the quantity of shrimp imports exceeded domestic landings. While landings have more or less remained at the same level since then, imports have been surging. While domestic landings amounted to 92,600 tonnes in 1988 compared to 93,000 tonnes in 1979, imports more than doubled from 101,900 tonnes to 229,000 tonnes during this period.⁷⁶

Countries in the Latin America and Asia are the chief sources of shrimp products imported by the U.S. Producers in Central and South America direct nearly all their exports to the U.S. The growth in exports in this region has increased significantly in recent years with the expansion of shrimp farming. A prime example is Ecuador whose exports have increased dramatically, reaching 50,000 tonnes in 1987.⁷⁷ Production and exports by Asian countries led by China have been growing as shrimp farm expansion continues in South Asia. Shipments from this region for the most part have been going to Japan, but sales to the U.S. and Europe have been growing in importance. Thus, like

75. Peckham, *op. cit.*, p.62.

76. *ibid.*, p. 62.

77. *ibid.*, p. 62.

Japan, the U.S. has also been experiencing an influx of cultured shrimp. The share of aquaculture in the total shrimp imports to U.S.A. went up from 8 per cent in 1981 to over 30 per cent in 1987.⁷⁸

Shrimp prices in the U.S. used to follow a seasonal pattern of highs and lows. Their direction was the opposite of the volume of the domestic production which was at its peak in the summer and at the low point in the winter. Generally speaking, the highest prices were paid early in the year, from January through April. Import prices followed a similar pattern to domestic prices. The supply of farmed shrimp has reduced the undulations in prices and supply and prices are expected to smoothen further in future.

As in Japan, the prices of shrimps are related to the size of individual shrimp, the species, colour, origin, quality and as well as supply conditions. Large shrimp brings the highest price because they are usually in short supply relative to demand, they require less labour to process and are more acceptable to institutional use.

78. Infofish, Shrimp 88, op. cit., p.3.

Demand for shrimp in the U.S. has been influenced by the economic conditions. However, the demand for shrimp in the U.S. has, in general, been showing a strong trend both in terms of total demand and per capita consumption. Since 1980, when the total usage of shrimp in U.S. surpassed that in Japan, the U.S. has been the leading shrimp market in the world.

Per capita consumption of shrimp in the U.S. increased from 0.77 kg. in 1980 to 1.27 kg. in 1988. According to conservative estimates, it should rise to above 2 kg. by 2000.⁷⁹

The following factors have contributed to the recent rise in demand for shrimp: abundant supplies, weak prices, increased marketing effort, limited supplies of competitive products such as king crab and lobster and an overall increase in demand for seafood in general.⁸⁰

The projected growth in shrimp consumption will have to be supplied by imports because the domestic production of ocean caught shrimp has reached its maximum annual yield.

While 85 per cent of the frozen shrimp is eaten in restaurant and only about 15 per cent of the frozen shrimp

79. Charles P. Peckham, op. cit. p.64

80. ibid., p.62.

is sold through retail trade (mainly super markets) canned shrimp, on the other hand, are sold almost entirely at the retail level.⁸¹

There are now more than 20 product forms of shrimp available for sale at food service seafood counters.⁸²

The U.S.A. is the second largest national market for tuna, accounting for a consumption of approximately 31 per cent of the world's annual tuna supplies,⁸³ being only a little lower than the Japanese consumption.

In terms of quantity, tuna tops the seafood imports to the U.S.A. and it is the most widely consumed fish in that country.

The U.S. is the world's largest canned tuna market, accounting for about 50 per cent of the total world sales each year.⁸⁴ Most canned tuna is eaten at home, in contrast to shrimp, where it is used as a convenience, fast food. Its primary use is in the preparation of

81. ibid.

82. Quick Frozen Foods International, January 1990, p.14.

83. "Turn on to Tuna", Seafood International, December 1988, p. 29.

84. Anon, "Recent developments in the US canned tuna market", Infofish, November/December, 1989, p.15.

sandwiches and salads. Traditionally, Americans consumed tuna packed in oil, but in the past 10 years there has been a consumption shift for health reasons (concern about cholesterol and sodium) in favour of tuna packed in water. The U.S. tariff structure for canned tuna has encouraged the importation of tuna in water (6 per cent ad valorem for MFNs and 25 per cent for other countries) because it attracts a duty significantly below the tuna packed in oil (35 per cent ad valorem for MFNs and 45 per cent for other countries).⁸⁵

The demand for fresh tuna in the U.S., although minor compared to that for canned products, is growing sharply along with the expanding seafood restaurant trade. Besides domestic landings, fresh tuna is air-freighted from as far away as Taiwan, Indonesia and Philippines. The high grade, high value products go into the 'sushi' restaurants while the other grades are usually sold as steaks for broiling and sauteeing.

Lower cost Asian producers are providing tough competition for the U.S. packers with imported canned tuna being appreciably lower in price in the super markets than the domestically packed products. This is particularly

85. ibid., p. 15.

the case for canned tuna at the lower end of the market. In an attempt to contain production costs and to maintain market shares, U.S. packers have been relocating the loining component of their operations to lower cost countries in the Carribean and South America.

North America and Western Europe are the dominant markets for ground fish, with substantial competition for raw materials among the regions. Lower catch quotas to protect the code resources have recently put pressure on the markets and hence both the U.S. and Europe are looking for possible substitutes for this traditional species. The U.S. use Alaskan pollack to replace cod in many instances, especially for low-value products such as fish fingers. Hake from South America has successfully found a place on the U.S. and EEC ground fish markets.

The U.S. market is very innovative compared to the European market and completely new species find their way easily to the market. Good examples are hoki and orange roughy from New Zealand where the latter developed in only a few years into a highly priced and appreciated species on the US market. The assessment is that there is no scope for the traditional ground fish market to

recover in the near future and importing countries will have to look for new products and that there is good chance for developing countries to take advantage of this market situation.⁸⁶ It is pointed out that:⁸⁷

the trend to add more to the fish and shell fish market basket will continue. Most Americans are familiar with 10 or 12 species, although across the nation more than 300 varieties are traded. Orange roughy, tilapia, loki and king-clip were virtually unknown five years ago. Today, exotic species such as chimaera, high brown snapper, printed sweetlips and leather jacket are imported. Who is to say which ones will become household words in the 1990s?

As in Japan, the demand for live seafood is growing in the U.S. too. A large proportion of seafood departments contain a display of live fish- 70 per cent of stores responding to a Food Marketing Institutes survey in 1987 carried live seafood as part of their wide range.⁸⁸ Most of the species sold from live

86. Helga Josupeit, op. cit., p.14.

87. Editorial, "The New Decade", Seafood International, January 1990, p.90.

88. "Selling Seafood Live", Seafood International, June 1988, p.37.

display tanks are high valued crustaceans like lobsters and crabs, but molluscan shell fish and finfish such as trout and catfish can also be displayed and kept live for long periods of time. Many restaurants and hotels have live displays in the dining rooms so that the customers can even select the fish he/she likes to relish.

Domestic aquaculture is making an important mark on the U.S. market. In fact, the growth of aquaculture is reported to be outpacing all other types of farming in the U.S. In 1988, nearly 8 per cent of the seafood Americans ate was cultivated domestically and large quantities of imported products were also farm raised. America's fish farms provide 11 per cent of the nations total production.⁸⁹

Catfish, crawfish, trout and salmon are the principal species grown in the U.S.A. More impressive still is the growth of farmed species such as tilapia, salmon, hybrid striped bass, red fish, sturgeon and abalone.⁹⁰

The advent of aquaculture will improve the overall distribution of seafood as producers meet needs for

89. Editorial, "The Next Decade", Seafood International, January 1990, p.3.

90. ibid., p.3.

fresh fish, delivered more frequently, to more remote parts of the country. With farmed fish, growers can specify when to harvest, thus providing buyers with more precise sizes and product forms.

The comparatively low per capita consumption of seafood and high consumption of animal meat and poultry in the U.S. indicate the tremendous scope for expanding the demand for seafood with right promotion. More retailers are now educating consumers about seafood by distributing pamphlets describing the benefits of seafood etc.

According to predictions made by nearly 300 U.S. seafood retailers and producers who attended the Food Marketing Institutes (FMI) Seafood Merchandising Conference in Seattle, Washington, in August 1988, in the 1990s, super markets in the U.S. should be selling three times as much as seafood. Retail space devoted to seafood will increase by a massive 315 per cent, will transform from case sales to full-service seafood meal departments and will be designed as 'fish schools' as much as for fish sales in the next 5 to 10 year.⁹¹

91. Cited in "Sales net to soar in U.S. super markets", Seafood International, October 1988, p.24.

It has been estimated that per capita consumption of seafood in the U.S. will rise to 20 lbs. by 2001 (from 15 lbs. now). Most of the increase will be in the frozen seafood, but there will be a significant growth in fresh cultivated fish and seafood products.⁹²

It is also expected that seafood consumption demographics will alter with population change. In other words, the population group that eats more fish now will be eating more fish than any other group by the year 2000. Today that group is made up of people aged 35 years and upwards with above average incomes who live in or near large cities.⁹³

In short, the U.S. market for seafood is very large and innovative with tremendous growth potential.

6.3.3. Western Europe

Western Europe is the other major market for seafood. Per capita consumption of seafood is fairly high in several of the markets of this region. Per capita consumption of seafood has been growing for the last several years and the trend is expected to continue in the 1990s, the major part of the consumption requirement of this market will be met by imports.

92. Editorial, "The New Decade", op. cit. p.3.

93. ibid. p.3.

Some of the importing countries of this region are also important exporters. A large part of imports of certain products to some of these markets also result in re-exports after processing or re-packing. There is also a large volume of trade between the nations of this regional market.

The European market also shows several characteristics which are similar to those in the other two major markets. Some of these have already been mentioned in the preceding sections.

As far as shrimp is concerned, Western Europe relies on local landings-- mostly cold water species from the North Atlantic Ocean and imports to supply market needs.

When compared to Japan and the U.S., the per capita consumption of shrimp is low in this market. Consumption has, however, been on the rise over the past decade. Per capita consumption was only 0.5 kg. in 1987. The total annual usage in the EEC increased from about 120,000 tonnes (product weight) in 1982 to over 200,000 tonnes in 1988. The pace of increase has been slower than in the other two markets.⁹⁴

94. Shrimp 87, op. cit., p.3.

Shrimp consumption in the EEC is projected to increase by almost 57 per cent or 107,000 tonnes by the year 2000, almost all the increase will come from imports, most likely farm raised products.⁹⁵

This product forms and species of shrimp preferred in Europe differ to some degree from those consumed in Japan and the U.S. where the processors and restaurants like the raw headless, shell on products. In the EEC, the preference, depending upon the country, is for whole raw shrimp or cooked and peeled products. Frozen headless shrimp is not yet well accepted in this market. The Southern Europeans traditionally buy medium sizes of whole raw shrimp, whereas in the Northern countries the preference is for the small cold water species, cooked and peeled.

The share of cultured shrimp in total EEC shrimp imports was very low compared to a substantial increase in its share in the imports to Japan and the U.S.; as noted earlier. However, the market for cultured shrimp, whole raw frozen products, is developing in this market and is expected to expand gradually over the next decade as the supply of capture shrimp is not likely to increase significantly.

95. Peckham, op. cit., p.68.

EEC consumers are the main consumers of cold water shrimp, about half of the present shrimp consumption in the EEC is made up of this species, in comparison with the other two markets where the consumption of cold water shrimp is very low. The main suppliers of cold water shrimp are Greenland and the Faroe Island--traded mainly through Denmark, Iceland, Norway, the USSR and Argentina.

Some of the European countries also have traditional trade links. Because of former colonial ties, the French tend to favour tropical shrimp from Africa (Senegal, Gabon, Madagascar, Sierra Leone), the British are in the habit of buying from South Asian countries (India, Pakistan and Bangladesh) and the Spanish from North Africa and Central and South America. West Germany imports mostly from other EEC countries, and Iceland, Norway and Faeroes.⁹⁶ Thus, in contrast to U.S.A. and Japan, EEC supplies do not depend on one single region, though about 30 per cent of the EEC imports is from intra-EEC trade. Further, the supplying countries to the EEC change substantially from year to year showing a tendency of most EEC importers to procure from the cheapest source, because of the very price conscious European retail market.⁹⁷

96. Peckham, op. cit., p.66.

97. Infofish, Shrimp 88, op. cit., p.3.

Like Japan and the U.S.A., Western Europe is a large market for tuna. It is the world's largest importer of canned tuna. In 1988 the European imports exceeded imports in the U.S. by nearly 49 per cent.⁹⁸ Three countries- France, U.K. and West Germany accounted for nearly three-fourths of the imports to the Western Europe.

While Asian suppliers of canned tuna dominate imports to the Western Europe, imports from the former European colonies in Africa and Pacific are also evident. Ties between these countries are maintained bilaterally through economic cooperation programmes as well as through preferential trade agreements.

In 1988, the principal exporter of canned tuna to the EEC was Thailand, followed by Senegal. In 1987, estimates of per capita consumption of canned tuna in Western Europe ranged from 0.29 kg. in West Germany and Sweden to 1.5 kg. in Italy. Average for the EEC was 0.63 kg. The rate of growth of canned tuna consumption in Western Europe has significantly outstripped

98. Information regarding the European tuna market is drawn from David J. Doulman, "European Canned Tuna Market", Infofish International, 1/1990, pp. 17-24.

consumption in the U.S. If the European trend continues, it is possible that the size of the European market could surpass the U.S. market within 5 years.

In contrast to the U.S. canned tuna market, the West European market is more complex, varied and fragmented. It has recorded extremely strong growth in the 1980s and is expected to continue in future though moderately in some countries. In many respects, the European market is "more sophisticated market than the U.S. market, with presentation and quality being more influential on demand than price. In general, European consumers will pay higher prices for canned tuna than their American counterparts, and for this reason the European market characteristically has a higher degree of stability".⁹⁹

The Western Europe is also an important market for cephalopods. However, the cephalopod consumption is largely confined to only some countries, showing the market diversity of this region. Spain and Italy are the major cephalopod importers of this region, both together representing about 35 per cent of the world imports of this category compared to nearly 40 percent by Japan.

99. David J.Doulman, "European Canned Tuna Market", Infofish International, 1/1990, p.17.

Spain is also an important producer of cephalopods. Spanish imports nearly doubled from 61,000 tonnes in 1986 to 117,000 tonnes in 1987, then slipped to 111,000 tonnes in 1988. Italian imports amounted to 91,000 tonnes in 1988. There has also been substantial increases in per capita consumption of cephalopods. Between 1981 and 1987, it nearly doubled from 1.2 kg. to 2.3 kg. in Italy, 2.4 to 5 kg. in Spain and 3.2 to 6.2 kg. in Greece.¹⁰⁰

In the Western Europe also, the traditional marketing channels are breaking down. "Indeed, there are many pundits who believe the day of the conventional wholesaler and importer is finished ... therefore unless the [exporter] can keep abreast and hopefully ahead of the changes in the distribution chain [he] will never realise the full potential of the European market".¹⁰¹ It is pointed¹⁰² out that the most cost effective route to tackle this market is by adopting three key market approaches:

- (i) form or join a consortium for marketing

100. Anon, "Global market increases for cephalopods outpacing gains for most other species", op. cit., p. 116.

101. David Jamieson, "The European Shrimp Market", in Shrimp 88, op. cit., p.42.

102. ibid., p.42.

- (ii) appoint a dynamic Europe-wide agent;
- (iii) conduct a highly targetted public reactions exercise using a competent public relations agency.

It has been observed that

the most successful Third World exporters of food stuffs have been consortia of suppliers or those relying on a third-party marketing arm such as the Marine Products Export Development Authority of India, to promote and sell their produce abroad. By using a consortium approach, a much more cost effective and credible promotional attack can be mounted than each individual supplier pursuing their own goals.¹⁰³

In sum, while the Western Europe has several characteristics similar to the Japanese and American markets, it also has several characteristics which are different from those of the other two major markets. Further, as it is an amalgamation of markets consisting of several countries, many cultures and different economic and geographical conditions, the market is heterogeneous in several respects. However, like the other major markets, the Western Europe also is large, dynamic and growing market.

103. ibid., p.43.

Chapter VII

EXPORT PERFORMANCE OF MARINE PRODUCTS

This chapter analyses the export performance of Indian marine products in the last four decades.

7.1. Growth of Marine Products Exports

This section makes a comparative study of the export performance of the Indian marine products.

7.1.1. Relative Growth of Marine Products Exports

The last four decades have witnessed a substantial increase in the marine products export earnings. Between 1950-51 and 1989-90, export earnings from marine products increased from Rs.2.45 crores to Rs.634.76 crores, representing an increase of 25809 per cent compared to the 4468 per cent increase in the total export earnings of India during this period.¹ In other words, during the four decades ending in 1989-90, while the total export earnings of India grew at an average annual rate of about 10 per cent, this growth rate was as high as nearly

1. Unless otherwise specified, the statistics quoted in this chapter are from the various publications of the MPEDA.

Table 7.1
Export Growth of Indian Marine Products
(1950-51 to 1990-91)

Year	Quantity in Tonnes	Value in Rs. crores	Average unit value real- isation (Rs./kg)	Growth Rate	
				Quantity	Value
1950-51	19651	2.45	1.24	--	--
1960-61	19990	4.64	2.32	--	--
1961-62	15732	3.92	2.49	-21.30%	-15.52%
1962-63	11161	4.20	3.76	-29.06%	+ 7.15%
1963-64	19057	6.09	3.19	+70.04%	+44.96%
1964-65	21122	7.14	3.38	+10.84%	+17.44%
1965-66	15295	7.06	4.62	-27.59%	- 1.20%
1966-67	21116	17.37	8.23	+38.06%	+145.90%
1967-68	21907	19.72	9.00	+ 3.74%	+13.53%
1968-69	26811	24.70	9.21	+22.39%	+25.26%
1969-70	31695	33.46	10.56	+18.22%	+35.47%
1970-71	35883	35.07	9.77	+13.21%	+ 4.83%
1971-72	35523	44.55	12.54	- 1.00%	+27.03%
1972-73	38903	59.72	15.35	+ 9.52%	+34.08%
1973-74	52279	89.51	17.12	+34.38%	+49.88%
1974-75	45009	68.41	15.17	-13.73%	-23.57%
1975-76	54463	124.53	22.86	+20.76%	+82.03%
1976-77	66750	189.12	28.33	+22.56%	+ 5.87%
1977-78	65967	180.95	27.43	- 1.17%	- 4.32%
1978-79	86894	234.62	27.00	+31.72%	+29.66%
1979-80	86401	248.82	28.80	- 0.57%	+ 6.05%
1980-81	75591	234.84	31.07	-12.51%	- 5.62%
1981-82	70105	286.01	40.80	- 7.26%	+21.79%
1982-83	78175	361.36	46.22	+11.51%	+26.35%
1983-84	92691	373.02	40.24	+18.57%	+ 3.23%
1984-85	86187	384.29	44.59	- 7.02%	+ 3.02%
1985-86	83651	398.00	47.58	- 2.94%	+ 3.57%
1986-87	85843	460.67	53.66	+ 2.62%	+15.75%
1987-88	97179	531.20	54.66	+13.21%	+15.31%
1988-89	99777	597.85	59.92	+ 2.67%	+12.55%
1989-90	110843	634.99	57.29	+11.09%	+ 6.21%
1990-91	135847	877.55	64.69	+22.56%	+38.20%

Source: MPEDA., Review of Marine Products Exports (various issues)

15 per cent for the marine products. Thus, the growth of marine products export earnings was nearly 50 per cent faster than the total export earnings.

Table 7.2 makes it clear that although in the three decades since 1950-51, the average growth rate of the marine products export earnings was much higher than that of the total export earnings of India, it was during 1960-61 to 1980-81 that the export performance of marine products was very spectacular.

During 1980-81 to 1989-90, the growth rate of export earnings of marine products lagged very much behind that of the total export earnings. Average annual growth rate of marine products exports during this period was only 10.45 per cent compared to the 15.22 per cent of the total export earnings.

The divergence in the growth rates between the total export earnings and the marine products export earnings was very pronounced in the last three years of the Seventh Plan. The exceptionally good growth in the total exports was mainly responsible for this. In 1989-90, the fall in the unit value of marine products exports was also a very important reason for the low growth rate.

Table 7.2
Relative Growth of
Total and Marine Products Export Earnings

Period	Average annual growth rate (percentage)	
	Total exports	Marine products
1950-51 to 1960-61	0.53	5.98
1960-61 to 1970-71	8.24	20.19
1970-71 to 1980-81	14.35	18.87
1980-81 to 1989-90	15.22	10.45
1950-51 to 1989-90	10.02	14.90

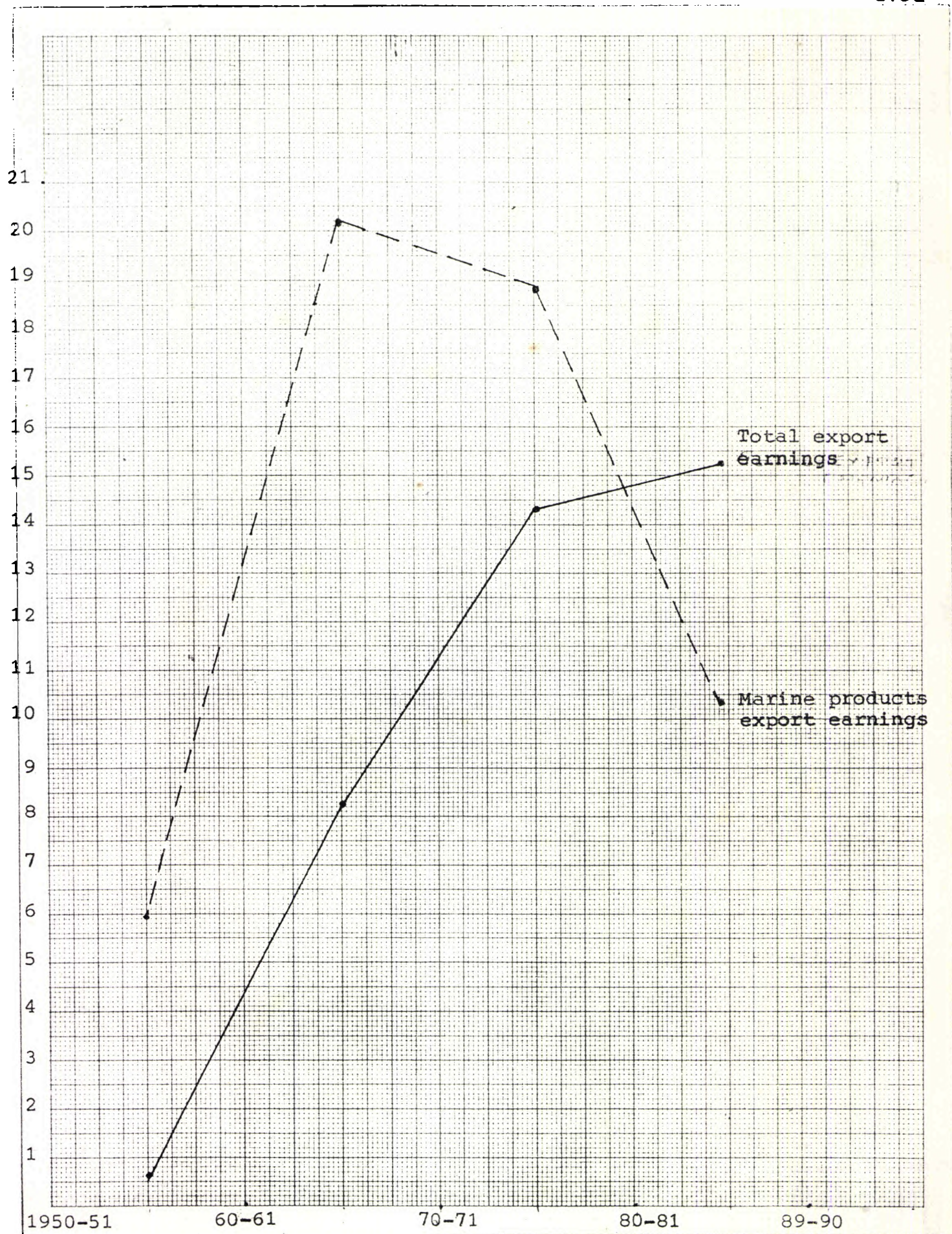


Fig.7.1. Relative Growth Rates (%) of Total and Marine Products Exports.

The growth trends of export quantity and earnings were obviously led by frozen shrimp. Between 1970 and 1988, exports of frozen shrimp increased 153 per cent in quantity and 1801 per cent in value. The near stagnation in the frozen shrimp exports since 1979 was mainly responsible for the deceleration in the growth of seafood exports in recent years. While the quantity of frozen shrimp was almost stagnant between 1980 and 1988, there was an increase of about 33 per cent in the total quantity of marine products exported. Frozen lobster tails, frozen cuttlefish and fillets, fresh/frozen fish and frozen squids recorded significant increases in their exports in recent years.

7.1.2. Share of Marine Products in the Total Export Earnings.

The growth of marine products exports at a rate much faster than the total exports naturally resulted in a substantial increase in the share of the marine products in the total export earnings of India. From about 0.4 per cent in 1950-51, it reached the peak level of 4.10 per cent in 1978-79- a ten-fold increase in the share in the course of about three decades.

Table 7.3
 India's Aggregate Exports and the Share of
 Marine Products Exports

Year	Aggregate Exports (Rs. Crores)	Marine Products Exports (Rs. Crores)	Share of Marine Products (percentage)
1957	657.2	4.6	0.70
1958	579.2	5.9	1.02
1959	621.0	6.2	1.05
1960	634.1	4.0	0.63
1961	660.1	4.1	0.62
1962	668.2	3.7	0.55
1963	774.1	5.9	0.76
1964	811.8	6.8	0.84
1965	803.2	6.9	0.86
1966	1,171.4	13.5	1.15
1967	1,229.7	19.9	1.65
1968	1,320.9	22.0	1.67
1969	1,376.3	33.1	2.40
1970	1,519.8	36.5	2.34
1971	1,580.9	39.2	2.48
1971-72	1,608.0	45.0	2.80
1972-73	1,971.0	60.0	3.04
1973-74	2,523.0	90.0	3.57
1974-75	3,329.0	68.0	2.04
1975-76	4,043.0	125.0	3.09
1976-77	5,146.0	189.0	3.67
1977-78	5,404.0	181.0	3.35
1978-79	5,726.0	235.0	4.10
1979-80	6,459.0	249.0	3.86
1980-81	6,711.0	235.0	3.50
1981-82	7,803.0	286.0	3.67
1982-83	8,834.0	361.0	4.09
1983-84	9,866.0	373.0	3.78
1984-85	11,855.0	384.0	3.24
1985-86	11,011.0	398.0	3.61
1986-87	12,550.0	461.0	3.67
1987-88	15,714.0	531.0	3.38
1988-89	20,281.0	598.0	2.95
1989-90	27,681.0	635.0	2.29

Source: MPEDA, Statistics of Marine Products Exports 1982, p.256 and 1988, p.203 and Review of Marine Products Exports 1989-90, Annexure III.

Although the marine products exports continued to grow in absolute terms in the decade following 1978-79, export earnings rising from Rs.235 crores in 1978-79 to Rs.598 crores in 1988-89, its share in the total export earnings ranged between 4.09 per cent and 3.24 per cent between 1979-80 and 1987-88 and in 1988-89 it dropped to 2.95 per cent, although that year achieved an increase of Rs.67 crores, or 12.6 per cent, in export earnings over the previous year. It further declined to 2.3 per cent in 1989-90 when the increase in export earnings of marine products was only 6 per cent compared to an increase of 36 per cent in the total export earnings of India.

The near stagnation in the quantity of shrimp exports, which contribute nearly 80 per cent of the export earnings from marine products, and the unfavourable situation in respect of shrimp prices in the international market coupled with the overall better export performance of the country have contributed to the recent fall in the share of marine products in the total export earnings. It should, however, be noted that although the recent figures of share of the marine products in the total export earnings are lower than the peak level of 4.10 per cent achieved in 1978-79, they are significantly higher than the figures for the years until the early 1970s.

Table 7.4
Comparative Growth of
Total and Marine Products Exports

Year	Growth rate (percentage) of	
	Total Exports	Marine Products Exports
1980-81	4.6	-5.6
1981-82	16.3	21.8
1982-83	12.8	26.4
1983-84	11.0	3.2
1984-85	20.2	3.0
1985-86	-7.2	3.6
1986-87	14.3	15.8
1987-88	26.4	15.3
1988-89	28.9	12.6
1989-90	36.4	6.2

Source: Government of India, Economic Survey 1989-90, P.S-73
and MPEDA, Marine Products Export Review 1989-90,
Annexure III.

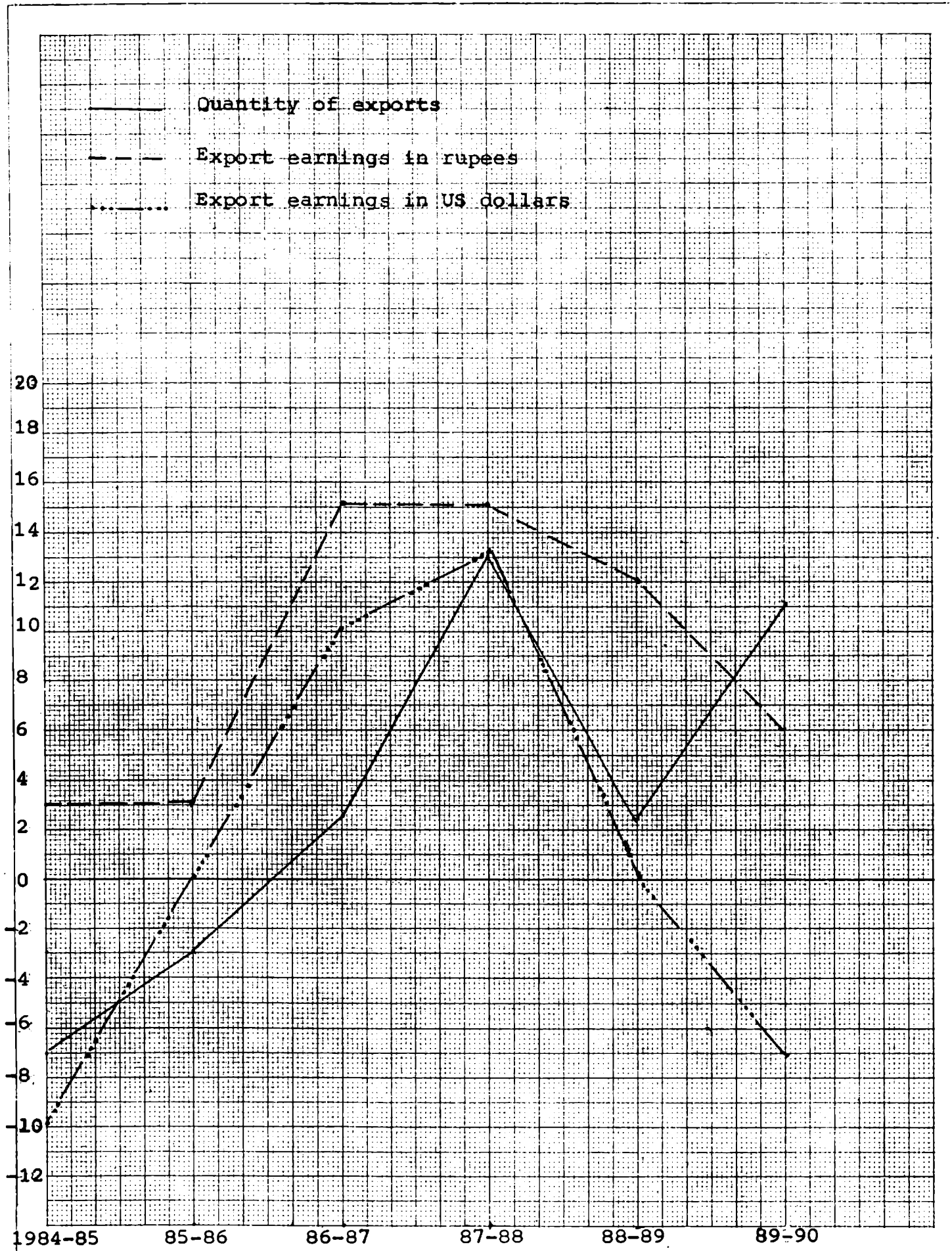


Fig.7.3. Comparative Growth Rates of Marine Products Exports in Terms of Quantity and Earnings in Rupees and US Dollars.

7.1.3. Relative Growth of Quantity and Value of Exports

The increase in the export earnings of marine products in the last four decades was mostly due to the substantial increase in the unit value realisation. As Table 7.5 shows, in all the four decades the average annual growth rate of the value of marine products exports was substantially higher than the growth of the quantity of exports.

During 1950-51 to 1990-91, the average annual growth rate of value of exports (15.52 per cent) was more than three times the growth rate of the quantity (4.82 per cent).

The change in the composition of the exports made a significant contribution to the faster growth in the marine products export earnings, particularly during the 1960s.

During 1951-56, there was an increasing trend in both the quantity and value of export of marine products. However, subsequent to 1956, there were some marked changes as evident from the analysis of triennial averages of quantities and values. Considering the first two triennials, it is seen that the average

Table 7.5
Relative Growth of Quantity and
Value of Marine Products Exports

Period	Average annual growth rate (percentage)	
	Quantity	Value
1950-51 to 1960-61	0.16	5.98
1960-61 to 1970-71	5.46	20.19
1970-71 to 1980-81	7.00	18.87
1980-81 to 1990-91	5.47	12.73
1950-51 to 1990-91	4.82	15.52

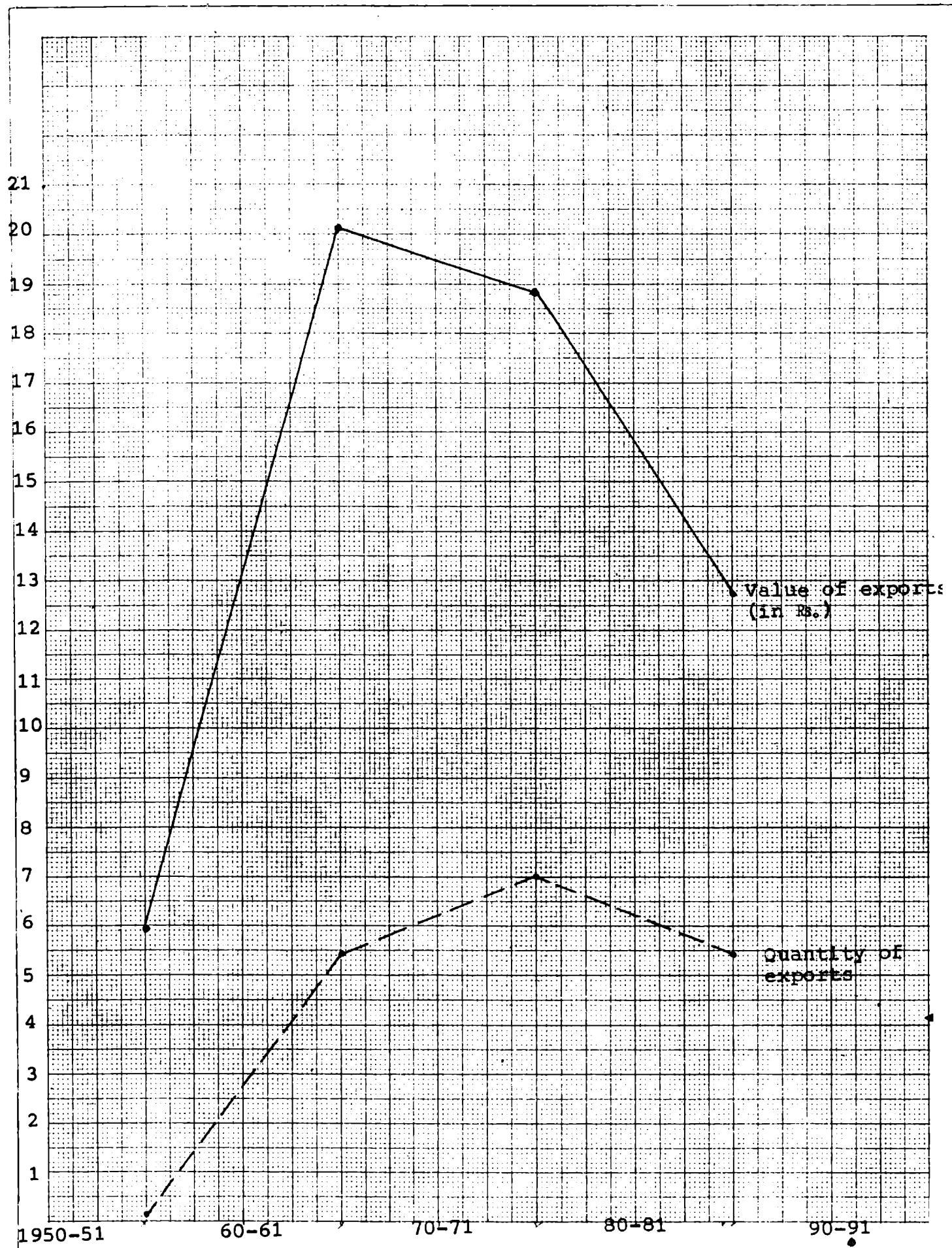


Fig.7.2. Relative Growth Rates (%) of Quantity and Value of Marine Product Exports.

quantity during the triennium ending 1962 was reduced by about 50 per cent, whereas the reduction in terms of value was of the order of only 30 per cent (see Table 7.6) indicating a change in the export trend from low unit value items comprising mainly sun-dried and salt-cured products to high unit value items consisting mostly frozen prawns, lobster tails, frog legs etc. Since then there was a rising trend both in terms of quantity and foreign exchange earnings till the late Seventies. However, during 1978-87, the rate of growth of the quantity exported was very low (1.3 per cent per annum). The quantity exported has again picked up recently, recording a growth of about 11 per cent in 1989-90 and 23 per cent in 1990-91.

Throughout the Seventh Plan, the volume growth of marine products exports was substantially lower than the targets. Production lags, mainly because of the very slow progress of deep fishing, has been mostly responsible for this. While data for the Seventh Plan is not readily available, data pertaining to all the previous Plans show a consistent and substantial shortfall in the expenditure on fisheries development when compared to the outlays provided under each Plan. The shortfalls were mainly because of the implementation lags, including lags in the procurement of vessels. As against

Table 7.6
Trends in the Export of Marine Products, 1957-73

Period	Triennial averages	
	Quantity (thousand tonnes)	Value (Rupees in Crores)
Pre-devaluation		
1957-59	29.1	5.5
1960-62	15.1	4.0
1963-65	18.3	6.5
Devaluation		
1966 (single year)	19.2	13.5
Post-devaluation		
1967-69	25.7	25.0
1970-72	36.5	44.3

Source: Government of India, Report of the National Commission on Agriculture, Part VIII, p. 268.

the original target of 500 and the revised target of 350 deep sea vessels to be introduced during the Seventh Plan, reports indicate that the actual number of vessels added during the Plan period would not come to even 200.

While there was a consistent shortfall in the achievement of the volume growth, the export earnings, in rupee terms, present a different picture. Although in 1985-86, export earnings fell little short of the target, in the next three years they were considerably higher than the targets because of the substantial increase in the unit value realisation. Depreciation of the rupee made a significant contribution to this. In 1989-90, seafood export earnings (Rs.634.99 crores) were very substantially below the target of 850 crores. The average unit value realisation declined from Rs.59.92 per kg. in 1988-89 to Rs.57.29 in 1989-90 because of the sharp decline in the price of frozen shrimp. In fact, the fall in the shrimp prices has not made its full impact felt on the export earnings expressed in rupee because the depreciation of rupee. Shrimp prices in the Japanese market sharply fell from 2025 Yen in 1985 to 1441 in 1986 and to 1179 in 1989.

The rupee value of export earnings indeed present a misleading picture of the export performance because

Table 7.7
Marine Products Exports:
Target & Achievement during VII Five Year Plan

Year	Export Volume		Export value		Variation from target (percentage)	
	Target (Tonnes)	Actual (Tonnes)	Target (Rs. crores)	Actual (Rs. crores)	Volume	Value
1985-86	86550	83651	402.68	398.00	- 3.35	- 1.17
1986-87	111700	85843	428.00	460.67	-23.15	+ 7.63
1987-88	117300	97179	470.00	531.20	-17.16	+13.02
1988-89	104500	99777	580.00	597.85	- 4.52	+ 3.07
1989-90	N.A.	110843	850.00	635.00	N.A.	-25.29

Source: MPEDA.

of the exchange rate variations. As one of the most important objectives of export promotion is foreign exchange earnings, to get a real picture of the export earnings, we should take the foreign exchange earnings and not the rupee value of the exports.

The picture of foreign exchange earnings from marine products exports is not as impressive as that of the export earnings denoted in home currency. As is clear from Table 7.8, the rate of growth of foreign exchange earnings has been considerably lower than that of the export earnings expressed in rupees. In fact, in several years when there was a positive growth of the rupee value of exports, there was a decline in the foreign exchange earnings. For example, in 1989-90, when there was an 11 per cent increase in the quantity of exports, the rupee value of exports having increased to Rs.634.99 crores representing 6.2 per cent increase over the previous year's figure of Rs.597.85 crores, foreign exchange earnings declined by 7.7 per cent, from \$ 412.88 million in 1988-89 to \$ 381 million in 1989-90. This was because of a decline in the unit value realisation from \$ 4.14 per kg. in 1988-89 to \$ 3.44 in 1989-90. Had the foreign currency unit value realisation in 1989-90 and 1988-89 remained at the same level as in 1987-88, the foreign exchange earnings in 1988-89 would have been \$ 420.06 million (instead of \$ 412.88 million) and \$ 466.65 million in 1989-90 (instead of \$ 381 million).

Table 7.8
Marine Products Export Growth
in Terms of Quantity and Export
Earnings in Rupees and US Dollars

Year	Quantity (in tonnes)	Export value (in Rs.crores)	Export value (in \$ millions)
1983-84	92691 (18.57)	373.02 (3.23)	360.75
1984-85	86187 (-7.02)	384.29 (3.02)	323.20 (-10.41)
1985-86	83651 (-2.94)	398.00 (3.57)	325.43 (0.69)
1986-87	85843 (2.62)	460.67 (15.75)	360.46 (10.76)
1987-88	97179 (13.21)	531.20 (15.31)	409.12 (13.62)
1988-89	99777 (2.67)	597.85 (12.54)	412.88 (0.81)
1989-90	110843 (11.09)	634.99 (6.21)	381.00 (-7.72)

Figures in brackets represent percentage growth rates.

Source: MPEDA

7.1.4. Comparative Performance of India

The growth in India's export earnings from marine products have, on the whole, been impressive. However, export earnings is not the whole indicator of the strength of the export sector.

The export growth has decelerated in the 1980s because of the over-dependence on shrimp, the production of which has more or less stagnated. India did fairly well in the sixties and seventies in seizing the opportunity provided by the fast growing Japanese market for shrimp by increasing the supply of the fairly easily harvestable marine shrimp. However, with the stagnation in the shrimp landings this export growth has also stagnated. On the other hand, countries like China, Ecuador, Indonesia, Philippines etc. achieved remarkable breakthrough in shrimp production by aquaculture and the failure of the market leader to increase the supply to the fast growing market enabled the competitors to forge ahead easily. As evinced by Table 7.9, India's share in the world shrimp production fell from about 15 per cent in 1980 to less than 10 per cent in 1988. As a consequence, India has been losing its share in Japan and U.S.A., the major markets for shrimp.

Table 7.9
Top Ten Shrimp Producing Countries of the World
(1980-1988)

Sl. No.	Countries	1980	1981	1982	1983	1984	1985	1986	1987	1988
1.	China	184.2	187.3	189.2	220.5	250.0	367.0	426.0	457.5	583.6
2.	India	250.3	164.2	209.7	192.9	203.2	232.5	215.3	197.2	236.6
3.	Indonesia	136.0	138.5	130.5	138.2	132.9	144.1	157.0	186.9	202.3
4.	U.S.A.	161.8	160.8	136.2	119.9	145.0	152.7	183.3	165.0	150.8
5.	Thailand	133.3	148.3	187.5	160.3	136.2	126.3	139.5	150.1	150.1
6.	Mexico	77.5	72.0	78.6	76.9	76.1	74.6	73.2	83.9	73.2
7.	Ecuador	17.0	20.1	29.5	44.6	39.9	36.2	52.8	78.7	80.8
8.	Malaysia	83.9	94.5	67.4	76.5	70.1	69.0	73.0	72.8	72.8
9.	Philippines	25.7	36.8	44.6	39.8	52.2	62.4	72.1	68.0	79.6
10.	Greenland	35.8	35.8	40.7	41.2	41.5	52.4	64.1	64.4	65.1
World Landings		1682.7	1625.0	1735.6	1225.8	1907.3	2120.3	2215.4	2343.4	2446.6

Source: Year Book of Fishery Statistics (Reproduced in MPEDA, Statistics of Marine Products Exports 1988, p. 202.

India, which is one of the ten largest fish producing nation has a share of little over 3 per cent of the total fish production of the world. However, her share in the total world exports of fish and fishery products is lower than this. India's share had increased from 2 per cent in 1980 to 2.7 per cent in 1985; but it declined to 2.5 per cent in 1986 and further to 2.2 per cent in 1987,² indicating that, of late India has been lagging behind the rest of the world in increasing the export of this product.

Until 1985, India had a predominant position in the shrimp exports. But, because of the stagnation in India's shrimp supplies and the tremendous progress made by several other countries, mainly by farm production, India has been continuously losing her market share.

India, which had been the largest shrimp supplier to Japan, was overtaken by China in 1988. Table 7.10 shows that while several developing countries have substantially increased their share in the Japanese market, there was a steep fall in India's share.

2. Government of India, Economic Survey 1989-90 (New Delhi: Ministry of Finance, 1990), p. S-81.

Table 7.10
Share of Japanese Shrimp Imports
by Supplying Countries

Country	1984 (per cent)	1988 (per cent)
China	6.1	14.7
India	22.8	12.4
Indonesia	14.3	14.9
Philippines	3.0	7.2
Thailand	4.0	8.5
Taiwan	9.8	8.0
Vietnam	3.0	6.4

Source: World Bank, The Shrimp Industry: Global Subsector Study, op. cit., p.12.

Similarly, in the U.S. market for shrimp, China which had a share of only one per cent in 1984, compared to India's share of 6.7 per cent, overtook India in 1987 and attained a market share of over one-fifth by 1988. While the share of Asia in the shrimp imports to U.S. substantially increased from nearly 27 per cent in 1984 to 47 per cent in 1988, there was a slight decline in India's share from 6.7 per cent to 6.4 per cent³ during this period.

Thus, when compared to the progress achieved by several developing countries in seafood exports in recent years, India's performance has been very poor.

7.2. Composition of Exports

A new era in the annals of Indian Seafood Exports was dawn in 1953 when a Cochin firm exported about 13 tonnes of frozen shrimp, valued at Rs.7 0,000, to the U.S.A. Hitherto, India's marine products exports were confined mostly to dried fish and dried shrimp to the neighbouring countries like Ceylone, Burma and Malaysia. Hence, it is no exaggeration to say that till the early fifties, Indian seafood was virtually unknown

3. World Bank, ibid., p.13.

in international trade circles.

Although India now exports many marine products, over 95 per cent of the export earnings is contributed by five items, namely, frozen shrimp, frozen lobster tails, frozen cuttlefish and fillets, fresh/frozen fish and frozen squids.

Shrimp alone accounts for about 80 per cent of the export earnings by marine products. Indeed, the growth of seafood exports from India was triggered by the growth of shrimp exports. Between 1963 and 1982, export earnings from marine products increased by Rs.336.38 crores. Rs. 297.71 crores, or about 88.5 per cent, of this increase was contributed by shrimp items, mostly frozen shrimp.

Shrimp accounted for 44.71 per cent of the total quantity and about 65 per cent of the total value of marine products exports in 1963. By 1982, the respective figures reached about 72 per cent and 88 per cent. Thereafter, there was a gradual decline in their shares and in 1988 shrimp accounted for 56.4 per cent of the total quantity and 79.05 per cent of the total value of marine products exports. In 1989-90, these shares declined to 52.18 per cent and 72.96 per cent.

Within the shrimp category, the growth of frozen shrimp was very much spectacular, while exports of canned and dried shrimp declined in absolute as well as relative terms. The share of frozen shrimp in the total marine products exports increased from about 22 per cent in terms of quantity and 36 per cent in terms of value in 1963 to about 73 per cent of the quantity and 88 per cent of the value in 1983 and in 1988 they stood at about 56 per cent and 79 per cent respectively. This single item, frozen shrimp, contributed nearly 2.7 per cent of India's total export earnings in 1987-88 and 1.67 per cent in 1989-90.

Several factors have contributed to the spectacular growth of the shrimp exports. While on the demand side the rapid growth in shrimp consumption and the remunerative price have encouraged exports, on the supply side the comparative ease of harvesting the inshore and inland shrimp stock and the easy access to the processing technology by even small entrepreneurs facilitated the growth of shrimp exports until the late 1970s since when the shrimp landings and the quantity exported have almost stagnated.

Table 7.11
Structure of Marine Products Export from India

	1963		1968		1973		1978		1983		1988	
	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
Frozen Shrimp	3967 (22.15)	21204 (36.16)	14397 (58.02)	156340 (70.80)	35895 (73.58)	658122 (82.70)	51223 (65.72)	1790644 (84.40)	53603 (62.21)	3103724 (85.66)	55976 (56.37)	4611285 (79.04)
Frozen Frog Legs	514 (2.87)	3192 (5.44)	452 (1.82)	4891 (2.21)	2698 (5.53)	44979 (5.65)	3570 (4.58)	84251 (3.97)	1871 (2.17)	49590 (1.37)	13 (0.01)	360 (0.01)
Frozen Lobster tails	53 (0.30)	313 (0.53)	297 (1.20)	6684 (3.03)	380 (0.78)	10663 (1.34)	691 (0.89)	45668 (2.15)	676 (0.78)	61271 (1.69)	1574 (1.58)	222182 (3.72)
Frozen Cuttle-fish and Fillets	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
Frozen Squids	11 (N)	37 (N)	5 (N)	50 (N)	146 (0.30)	731 (0.09)	9931 (4.74)	63396 (2.99)	19094 (22.16)	241276 (6.66)	12303 (12.39)	286305 (4.97)
Fresh and Frozen Fish	1231 (6.87)	7576 (12.92)	2238 (9.02)	26156 (11.84)	2199 (4.51)	52369 (6.58)	204 (0.26)	9149 (0.43)	29 (0.03)	1408 (0.04)	13 (0.01)	513 (0.01)
Canned Shrimp	2809 (15.69)	9325 (15.90)	1411 (5.69)	7259 (3.30)	284 (0.58)	3230 (0.41)	4 (N)	75 (N)	28 (N)	454 (N)	87 (0.09)	1640 (0.03)
Dried Shrimp	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
Dried Fish	8704 (48.60)	13721 (23.40)	5388 (21.72)	14045 (6.36)	3388 (6.94)	10955 (1.38)	6311 (8.10)	32135 (1.51)	4873 (5.66)	41038 (1.13)	4175 (4.20)	52197 (0.89)
Shark Fins and Fish Maws	342 (1.90)	3051 (5.20)	331 (1.37)	4690 (2.12)	252 (0.52)	6569 (0.83)	423 (0.54)	34676 (1.63)	141 (0.28)	20526 (0.88)	158 (0.40)	30111 (1.22)
Other items	277 (1.55)	227 (0.39)	291 (1.17)	730 (0.33)	3530 (7.84)	7955 (1.43)	4610 (15.17)	44989 (2.92)	1727 (6.71)	20246 (2.57)	903 (25.04)	30393 (10.20)
Total	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
	17908 (100.00)	58646 (100.00)	24810 (100.00)	220846 (100.00)	48785 (100.00)	795763 (100.00)	77946 (100.00)	2121574 (100.00)	86169 (100.00)	3623231 (100.00)	99306 (100.00)	5833819. (100.00)

Figures in brackets are percentages.

N = Negligible.

Source: MPEDA, Statistics of Marine Products Exports, 1982 and 1988.

Exports of IQF shrimp, freeze dried shrimp, frozen deep sea lobster, frozen tuna and live crabs started during the Seventh Plan. Export of frozen octopus has also been started recently.

The progress of value added exports has been very slow. Even in 1990-91, IQF shrimp contributed only about 10 per cent of the total marine products export earnings although the Seventh Five Year Plan aimed at a target of IQF shrimp equivalent to 40 per cent of the total shrimp exports by the end of the Seventh Plan.

For the growth of marine products exports in future, more reliance will have to be made on cultured shrimp and non-shrimp items with a much greater thrust on value added items. Deficiencies of the fishing and processing paraphernalia and marketing efforts will have to be overcome for achieving this.

7.3. Direction of Exports

As in the case of products, the markets for Indian marine products are also characterised by a lack of diversification.

Indian exports are too dependent on two markets, viz., Japan and the U.S.A., particularly Japan.

Over the years, some changes in the relative shares of different markets for Indian seafoods have taken place. However, the prominent change was in the direction of concentration and the net effect on the market diversification has not been very significant.

The most notable changes have been in the shares of U.S.A., Japan and Sri Lanka.

Considering the period since 1963, until 1970 the U.S. was the dominant market for Indian marine products. Japan, whose market share in 1963 was less than one per cent, began to substantially increase it since the mid sixties and by 1971 with a share of nearly 53 per cent it became the largest market for Indian marine products. It further increased its market share and between 1979 and 1982 its share hovered around 70 per cent. There was a decline thereafter and in 1988 it stood at about 59 per cent. The share of U.S.A., on the other hand, declined from the peak of nearly 60 per cent in 1966 to less than 10 per cent in 1980 and remained around 13 per cent between 1982 and 1988. Although the market share of the U.S. has substantially declined, the total quantity and value of exports to that market have been on the increase.

About 62 per cent of the growth in the marine products export earnings of India between 1964 and 1971 was due to the increase in the exports to Japan. Nearly, three fourths of the total increase in the export earnings from marine products during 1971-81 was contributed by the growth in exports to Japan. During 1981-88, this was about 47 per cent. During the period of the quarter century from 1964 to 1988, increase in exports to Japan contributed about 60 per cent of the growth in the export earnings. Thus,

expansion of a single market is mostly responsible for the growth of India's marine products exports. What is more interesting is that, a single product, frozen shrimp, exports to a single market, Japan, brought about as much as 55 per cent of the growth in export earnings from marine products between 1964 and 1988. During 1964-84 it was as high as 66 per cent.

Although the share of U.S.A. in the marine products exports from India has substantially declined, the combined share of Japan and U.S.A. has been very high. Between 1972 and 1986, except in 1980 when their share was about 79 per cent, in all the years it was above 80 per cent; in some years it being as high as about 90 per cent.

Japan and the U.S. together contributed nearly 82 per cent of the increase in the export earnings from marine products between 1964 and 1985. Since 1985, exports to other countries have grown relatively faster. Between 1985 and 1988, Japan and U.S.A. together accounted for only about 53 per cent of the growth in export earnings. U.K., Belgium and Australia have in recent years increased their share of intake of Indian marine products' exports.

Sri Lanka had a considerable share of Indian exports of marine products until mid 1960s. Because of the rapid increase in exports to other markets and the fall in the quantity of exports to Sri Lanka, its share fell steeply and today accounts for only a negligible share. Bulk of the exports to Sri Lanka, as in the past, continues to be dried fish and dried prawns. Sri Lanka absorbs over 90 per cent of India's export of dried fish.

The percentage growth of exports to several countries like Spain, U.K., Singapore, France, Greece and Italy during the Seventh Plan was spectacular. The first four years of the Seventh Plan registered an export growth of 2998 per cent to Spain, 1015 per cent to Italy, 621 per cent to Greece, 178 per cent

to Singapore, 159 per cent to France and 123 per cent to U.K. compared to 40 per cent to Japan and 48 per cent to U.S.A. However, in absolute terms the aggregate growth in exports to all the six markets mentioned above, excluding Japan, amounted to only 53.33 crores compared to 91.46 crores in respect of Japan. Thus, even very recently, Japan has accounted for the substantial chunk of the export growth. In 1989-90, Japan continued to be the largest market for Indian marine products with a share of 36 per cent in volume and 57 per cent in value, followed by the EEC with a share of 34 per cent in volume and 24 per cent in value. The U.S.A. held the third position with a share of 12 per cent in both volume and value.

There is a very high degree of market concentration in respect of India's shrimp exports. Till 1970, the most of India's shrimp exports were absorbed by U.S.A. However, since 1973, most of the shrimp exports has been directed to Japan. After Japan and U.S.A., the next important market for Indian shrimp is the U.K. In recent years, these three markets together accounted for over 90 per cent of the shrimp exports; Japan and the U.S. together accounted for over 80 per cent, except in 1989-90 (79 per cent).

Table 7.12

Major Importers of Indian Marine Products and their Share in our Exports
(1979 - 1988)Q: Quantity X (in percentage)
V: Value X

Major Importers	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
1. Japan	Q: 41.4 V: 68.2	Q: 49.96 V: 69.65	Q: 55.47 V: 71.25	Q: 53.61 V: 71.47	Q: 43.44 V: 66.67	Q: 46.84 V: 68.42	Q: 47.16 V: 68.04	Q: 44.85 V: 67.62	Q: 43.28 V: 66.55	Q: 34.86 V: 58.92
2. U.S.A.	Q: 15.9 V: 15.3	Q: 10.35 V: 9.17	Q: 13.99 V: 11.69	Q: 16.70 V: 12.91	Q: 15.40 V: 13.35	Q: 13.50 V: 12.42	Q: 13.37 V: 13.20	Q: 12.96 V: 12.48	Q: 14.67 V: 13.27	Q: 13.84 V: 12.32
Sub Total	Q: 57.3 V: 83.5	Q: 60.31 V: 78.82	Q: 69.46 V: 82.94	Q: 70.31 V: 84.38	Q: 58.84 V: 80.02	Q: 60.34 V: 80.84	Q: 60.53 V: 81.24	Q: 57.81 V: 80.10	Q: 57.95 V: 78.82	Q: 48.70 V: 71.24
3. France	Q: 3.9 V: 3.2	Q: 3.21 V: 2.65	Q: 2.64 V: 1.67	Q: 2.64 V: 1.65	Q: 1.83 V: 1.19	Q: 1.68 V: 1.04	Q: 3.35 V: 1.57	Q: 4.87 V: 2.58	Q: 5.06 V: 2.85	Q: 4.75 V: 2.41
4. Netherlands	Q: 2.5 V: 2.6	Q: 4.07 V: 3.74	Q: 3.18 V: 2.53	Q: 2.38 V: 1.74	Q: 2.13 V: 2.26	Q: 1.34 V: 1.15	Q: 0.72 V: 0.98	Q: 0.99 V: 1.57	Q: 0.49 V: 0.87	Q: 0.88 V: 1.06
5. U.K.	Q: 1.7 V: 2.2	Q: 2.33 V: 2.61	Q: 4.00 V: 3.52	Q: 3.94 V: 3.52	Q: 4.20 V: 4.55	Q: 5.08 V: 5.78	Q: 5.48 V: 5.49	Q: 5.05 V: 5.43	Q: 4.66 V: 5.18	Q: 7.37 V: 7.69
6. Australia	Q: 0.5 V: 0.9	Q: 0.65 V: 0.87	Q: 0.61 V: 0.73	Q: 0.55 V: 0.67	Q: 0.27 V: 0.36	Q: 0.18 V: 0.26	Q: 0.27 V: 0.34	Q: 0.66 V: 0.41	Q: 0.42 V: 0.45	Q: 0.40 V: 4.26
7. Belgium	Q: 0.6 V: 0.7	Q: 1.57 V: 1.09	Q: 1.13 V: 0.99	Q: 1.08 V: 0.80	Q: 0.87 V: 0.84	Q: 1.32 V: 1.13	Q: 1.20 V: 0.85	Q: 0.96 V: 0.60	Q: 0.91 V: 0.61	Q: 1.51 V: 1.28
8. Sri Lanka	Q: 3.7 V: 0.6	Q: 5.47 V: 0.84	Q: 1.14 V: 0.16	Q: 3.28 V: 0.55	Q: 5.59 V: 1.10	Q: 11.05 V: 2.02	Q: 10.84 V: 2.00	Q: 7.29 V: 1.58	Q: 5.38 V: 1.22	Q: 4.10 V: 0.83
9. Others	Q: 29.8 V: 6.3	Q: 22.39 V: 9.38	Q: 17.84 V: 7.46	Q: 15.82 V: 6.69	Q: 26.27 V: 9.68	Q: 19.01 V: 7.78	Q: 17.61 V: 7.53	Q: 22.37 V: 7.73	Q: 25.13 V: 9.00	Q: 32.29 V: 11.23
Total Exports	Q: 100.00 V: 100.00	Q: 100.00 V: 100.00	Q: 100.00 V: 100.00	Q: 100.00 V: 100.00	Q: 100.00 V: 100.00	Q: 100.00 V: 100.00	Q: 100.00 V: 100.00	Q: 100.00 V: 100.00	Q: 100.00 V: 100.00	Q: 100.00 V: 100.00

Source: MPEDA, Statistics of Marine Products Exports 1988, p. 11.

Some market diversification has been achieved in respect of frozen lobster tails, frozen cuttlefish/fillets and frozen squids.

Although U.S.A. had a very large share of the lobster tails, since 1982 most of the exports of this item has been to Japan. The quantity of lobster landings in India has been very erratic and so has been its exports.

In respect of frozen cuttlefish/fillets, there was a substantial decline in the share of exports to Japan and a substantial increase to Spain which has recently emerged as the major market for this product from India. The total quantity of cuttlefish export from India has considerably increased and the bulk of this increase has been absorbed by Spain.

Besides Spain and Japan, other important export markets for Indian cuttlefish are Italy, France, Portugal and Greece.

Significant increase was recorded in the exports of frozen squids also. As in the case of cuttlefish, Spain accounted for the large part of the increase in the export of squids and as a result the share of France,

which was the largest market for Indian squids, declined, although the total export of this product to France increased. Other important markets for Indian squids are Greece, Italy, Belgium and Australia.

The major market for frozen fish is Singapore. Other important markets are Japan, Kuwait, Taiwan, U.S.A. and U.K.

In short, there is very high market concentration in respect of dried fish, frozen shrimp and frozen lobster tails. In respect of frozen cuttlefish/fillets and frozen fish, although one market accounts for a large share of the exports, market concentration is much lower than in the case of the three products mentioned above. In respect of frozen squids, market concentration is considerably lower than in respect of frozen cuttlefish/fillets and frozen fish.

Chapter VIII

PROBLEMS OF INDIA'S MARINE PRODUCTS EXPORT INDUSTRY

The Indian marine products export industry is fraught with many problems which hamper the growth of exports. Some of these problems are, in fact, inherent in the very nature of this industry in India characterised by disintegrated structure, large number of small units, obsolete technology etc. There are several problems caused by the deficiencies of planning and implementation, and government policies and procedures. There are also problems arising out of lack of commitment on the part of exporters. Lastly, there are the problems posed by the growing competition from other nations. This chapter reviews the important problems of India's marine products export industry.

8.1. Scarcity of Raw Materials

Inadequate supply of raw materials is a major hurdle in the way of increasing India's seafood exports. As a matter of fact, in the case of shrimp, especially, demand has not been, at least until very recently, a constraint. It has indeed been the supply constraint that has prevented Indian exports from growing in the fast expanding shrimp markets of Japan, the U.S.A., Western Europe etc.

For over a long time now, there has not been any increase in the marine shrimp landings despite the significant increase in the numbers of vessels engaged in shrimping. The consequent decline in the per vessel shrimp catch has made the vessel operations unprofitable. The competitive bidding by the processors for the limited supply of raw material has pushed the raw material price in India very high when countries like China, Taiwan, Ecuador etc. have forged ahead with low cost farm produced shrimp.¹

A substantial improvement in the productivity of prawn farms in India is necessary to reduce the cost. Despite the enthusiasm professed by the Government in expanding prawn farming, it is disappointing to note that unfavourable government attitude and procedural delays discourage private enterprise in aquaculture. Those disgusted by such lethargic attitude include young technocrat entrepreneurs as well as large industrial houses. It is reported that some companies like Bombay Dyeing and Godrej have even given up their proposed prawn farming projects.²

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1. According to some estimates, while it costs \$ 9 per kg. for fishing, the comparable cost for prawn production by aquaculture is \$ 3 (Source: The Economic Times, Madras Bureau, "Seafood exports hit by cut-throat competition", The Economic Times, 25.5.1990.
 2. Indira Khanna, "Prawn Farming: Angling for exports", Business India, May 28-June 10, 1990, p.31.

Because of supply constraints, it has been difficult to establish and expand market for cephalopods, tuna and several other commodities.

8.2. Weakness of the Industry

The seafood industry in India suffers from several structural and other weaknesses. Several of the weaknesses are inherent in the present structure of the industry. The shrimp sector, for example, is much proliferated and diverse, as is evident from the number of catching units, final and intermediate processing operations and diversified collection or buying operations. Most of these intermediate processing and buying facilities are quite independent of the final processors for export. Some of the problems and characteristics described below are a manifestation of this very nature of the industry as developed in India.

8.2.1. Lack of Integration

The modern seafood export industry in several countries is characterised by vertical integration. However, the situation in India, as indicated above, is quite different. Most of the processors depend on outside sources for their entire supply of raw materials. According to the findings of the survey conducted by this researcher, in the case of processors having fishing

operations, own sources of supply meet only a small proportion of their total raw-material consumption. It is not that the exporters did not feel the need for having own sources of supply. Several of them had tried this but it did not prove to be a viable operation. Overheads were high and there were problems of supervision and control leading to the pilferage of materials on the high seas. Therefore, processors tend, by and large, to depend on outside sources for their raw material requirements.

Some shrimp exporters have gone in for backward integration by taking up prawn farming. However, a complete integration encompassing hatchery, prawn farm, feed mill, processing facilities and export marketing is yet to take off. The large industrial houses interested in seafood exports could have been led in this direction, but their enthusiasm has been killed to a large extent by the government apathy, as noted earlier.

In an environment characterised by supply constraints and tremendous demand expansion, shrimp exports by several trading houses amount to a sort of trade diversion than trade creation. It was even reported that export houses and trading houses were tipping off export orders from

small exporters to fulfil their targets. In an environment as described above, the real test of efficiency in export performance is export growth by generating exportable surplus. Vertical integration helps to generate such exportable surplus.

8.2.2. Large Number of Units and Excess Capacity

The booming demand for shrimp lured many entrepreneurs to this business. The easy access to the freezing technology and the relatively small capital requirement resulted in the establishment of a large number of small processing units. However, because of the raw material shortage, capacity utilisation has remained at a very low level. It has been reported that only 20 per cent of the installed capacity is utilised.³

Many entrepreneurs who suffered losses left the business, leasing or hiring out the processing facilities. The large excess capacities with many other entrepreneurs have also been available on hire. The availability of processing facilities on lease or hire without having to make capital investment attracted many fair-weather

3. Editorial, "Stop this Discrimination", Seafood Export Journal, May 1991.

businessmen who have no permanent stake in the industry. Neither the owners nor the lessees/hirers have any long-term interest to improve the processing unit. Further, there are the problems given rise to by the increase in the number of exporters in a situation of inelastic supply.

The smallness also affects the marketing capability. A critical minimum effort and big push are needed to enter and take off in the competitive seafood market.

It is a dynamic, sensitive and complex market and can be an expensive one to enter. Market surveys, packaging and advertising have to be addressed. Indicative of how complex the market is 'Findus' has spent £ 20 million in brand advertising the 'Lean Cuisine' products.⁴

It may be noted that annual export earnings of even the largest Indian seafood exporter does not come to even half this amount spent on brand advertising. This is a clear indication of the limitation of the Indian exporters.

4. R. Lambert, 'Value added shrimp products in Europe', Infofish International, July/August 1990, p.12.

In 1988-89, there were only 6 marine products exporters in India with a turnover of Rs.10 crores or more each. About two-thirds of the total number of exporters each had exports of Rs.1 crore or less in 1988-89. Table 8.1 gives further details.

8.2.3. Technological Obsolescence

Processing facilities of most of the units are obsolete. Most of the plants take more than three hours for the freezing shrimp or fish. The conventional facilities rule out production of value added items. Of late, although some units have introduced plants which freeze the material within 90 minutes and 60 minutes with the help of MPEDA's assistance under its modernisation and technology upgradation schemes or otherwise, the modernisation has not pervaded the large part of the industry. Besides the situation described in the preceding section, financial constraints also come in the way of modernisation.

Several seafood processing units in other countries employ highly sophisticated, automated technology which facilitate very efficient grading, processing and quality control. Products from such plants have a special appeal to the consumers who pay great attention to the hygienic

Table 8.1
 Distribution of Marine Products Exporters
 By Size of Exports (FOB Value)

Range of Export	1988-89		1987-88	
	Number of Exporters	Share of Exports (percent)	Number of Exporters	Share of Exports (percent)
Rs. 10 crores and above	6	13.50	8	17.45
Rs. 8 - 10 crores	6	9.29	4	6.64
Rs. 5 - 8 crores	24	25.13	15	17.67
Rs. 2 - 5 crores	47	26.79	51	31.03
Rs. 1 - 2 crores	52	12.46	46	12.33
Rs. 50 lakhs - 1 crore	51	6.06	54	7.38
Rs. 25 - 50 lakhs	55	3.38	67	4.63
Rs. 10 - 25 lakhs	89	2.61	62	1.85
Rs. 5 - 10 lakhs	42	0.50	49	0.65
Below Rs. 5 lakhs	151	0.28	144	0.37
	<u>523</u> ===	<u>100.00</u> =====	<u>500</u> ===	<u>100.00</u> =====

Source: MPEDA

aspects of food products. The environment and conditions of handling and processing seafood are among the factors given importance by the final consumers and importers.

Technological upgradation will, besides other benefits, help increase the quantity available for exports by reducing the waste. For example, blast freezing for export of head-on shrimp, besides adding value, results in waste reduction in the range of 30-50 per cent, according to the MPEDA sources.

It is high time that effective measures are taken to absorb state of the art technology in the Indian seafood industry. The import and industrial policies in particular and the economic policy in general, and the procedural delays have, besides other factors, been discouraging such modernisation. Although active export promotion has been an avowed objective of economic policies in India and schemes of assistance to this end have been offered, the overall environment has not been congenial and motivating enough to usher in the needed change and dynamism.

8.2.4. Lack of Diversification

Lack of diversification of India's seafood exports is reflected by the product and market concentration, as explained in Chapter 7.

Most of the processing plants have been concentrating on shrimp, despite the very high under-utilisation of the plants. Processors' using hired facilities are not interested in increasing the plant capacity utilisation by venturing into risky diversification. The processing industry has not been able to make use of bulk landings of sardines, mackerel etc. due to various technical and economic reasons.

Most of the Indian seafood exports are in the block frozen forms. According to the MPEDA sources, exports in the value added form will enable the seafood industry to increase the export earnings by about 25 per cent. The progress achieved in this direction, has, however been disappointing. For example, although the Individually Quick Frozen (IQF) shrimp had become popular in the international market quite long ago, it was only during the Seventh Plan that India ventured into the export of IQF shrimp, despite the fact the Report of the National Commission on Agriculture (1976) and the IIFT's Survey Report on India's Export Potential of Marine Products (1970), besides several others, had emphasised the importance of promoting IQF exports. The MPEDA in its Draft Seventh

Five Year Plan had pointed out that

if our efforts result in switch over to IQF and other value added shrimp at the rate of about 8 per cent per annum, the share of value added items will be about 40 per cent of the total quantity of shrimp exported from India. Thus, the foreign exchange earnings from value added shrimp products alone will account for an addition of about 64 crores.⁵

However, the achievement so far has been meagre, despite the fact that IQF does not involve very sophisticated technology. The total value added exports in 1988-89 amounted to only 26.94 crores, consisting mostly of IQF shrimp and accelerated freeze dried shrimp. MPEDA is reported to be planning to convert 50 per cent of the shrimp export into IQF form by the end of the Eighth Plan.

There are several constraints in the promotion of value added and diversified products.

Firstly, there are the usual problems associated with the import policy and procedures for the import of technology, equipments, materials etc.

Secondly, the Government incentives have not been attractive enough.

5. MPEDA, Draft Seventh Five Year Plan 1985/86-1989/90 (Cochin: MPEDA, April 1984)p.69.

The canned shrimp export is a case in point, for instance. India was reported to be the market leader in this product until early 1970s. However, her exports of this item declined from 2000 tonnes valued at Rs. 5 crores in 1973 to a negligible level of 13 tonnes valued at about Rs. 5 lakhs in 1989-90 whereas the new comer Thailand nearly doubled its export from 11631 tonnes in 1984 to 21366 tonnes in 1988⁶ in the growing market for this product. To revive the canned shrimp exports, the Seafood Exporters' Association has been pleading the authorities to raise the CCS from 8 per cent to 25 per cent. Had the industry been given adequate and timely support, it should have been possible to maintain the market position.

Thirdly, some exporters are not convinced themselves of the economic benefits of switching over to the IQF, for they feel that the incremental benefit would not be worth the incremental cost and trouble.

Fourthly, the traditional importers who were reprocessors/repackers preferred the block frozen product and, therefore, it was easier for the Indian exporters to sell the conventional product than the IQF product.

6. Editorial, "Review of Shrimp Canning- Vital to Achieving Marine Product Export Target", Seafood Export Journal, May 1990, pp. 3-4.

Marketing of products in consumer packs by the exporters has been resisted by the importers as this would undermine their control of the market. Marketing such products, therefore, needs greater skill, effort and resources. Many Indian exporters lack the skill, resources or willingness to take the risk; they remain mere suppliers of the product required by the foreign importers rather than international marketers in the management sense of the term.

Absence of regular and economic supplies of raw materials and deficiencies of the domestic marketing system have also discouraged the processing of non-shrimp items by the Indian seafood industry.

8.3. Infrastructural Constraints

The Indian export sector, in general, suffers from several severe infrastructural constraints, as described in Chapter 2. The environmental sensitiveness and vulnerability of the seafood industry make the infrastructural constraints more problematic for the seafood exports. The seafood export sector struggles against

several problems like:

- (i) power shortage;
- (ii) non availability of sufficient potable water;
- (iii) shortage of ice;
- (iv) inadequacy of refrigeration facilities;
- (v) inadequacy of storage and ware-housing facilities; and
- (vi) inadequacy of shipping and transportation facilities.

The infrastructural bottlenecks have come in the way of:

- (i) developing markets;
- (ii) ensuring quality;
- (iii) making timely supplies; and
- (iv) controlling costs.

According to the Seafood Exporters' Association, inadequacy of the reefer sailing facilities to ship frozen cargo to the continental ports had acted as a great impediment in developing the highly affluent

markets in the continent in the past.⁷ Even now this constraint hampers market diversification and export growth.

Uninterrupted supply of power and potable water are essential for hygienic processing of seafood and for maintaining the quality of the raw material and processed product in storage. The situation in this respect is far from satisfactory. Due to power-cut and load-shedding/interruption/low voltage during the peak hours in the regular distribution system, the seafood and exporting units have to run generators as stand-by arrangement which is expensive. The demand of the seafood exporters for subsidising the cost of oil by the Government, though very genuine, is not yet accepted.

The MPEDA in its Draft Seventh Five Year Plan had pointed out that in India top level consultancy service on refrigeration, as applied to fishery, was not available.⁸ The situation is not in any way different even today when we are in the Eighth Plan.

7. Stated in the Presidential Address at the Annual General Meeting of the Seafood Exporters' Association of India, 1971 (reproduced in the Seafood Export Journal, July 1971, pp. 15-29).

8. MPEDA, Draft Seventh Five Year Plan, op. cit., p.28.

8.4. Financial Constraints

Non-availability of adequate finance at reasonable cost is a serious problem which the marine products export industry faces. This problem comes in the way of improvement of processing facilities and affects the volume of business and the selling price. Financial constraint weakens the holding capability of exporters in times of market decline and the resultant fall in the value realisation may even affect their ability to finance modernisation, expansion or even routine maintenance expenditures.

Although several measures have been taken to assist the financing of capital investment and to provide pre-shipment and post-shipment credit, finance continues to be an important constraint.

There is no serious difficulty in getting post-shipment credits since the export contracts in seafood are executed through irrevocable letter of credit. However, difficulties are experienced by the exporters in getting packing credit. The two important considerations of commercial banks in granting packing credit, viz., the past performance or credit worthiness of the exporter, and his ability to ensure adequate profit margins, sometimes make it difficult to get adequate finance.

The main impediment in arriving at the working capital needs of the exporter is the fluctuating cost of raw materials. Since the availability of raw materials depends on the vagaries of nature, it is difficult to predict the quantity of raw material that would be available for processing. Because of the uncertainties in the catches, the banks are reluctant to advance adequate finance.

Further, as pointed out in Chapter 2, the cost of finance in India is exorbitant, compared to that in several other nations.

Several schemes involving subsidy or equity participation are operated through the MPEDA for reducing the financial burden of the marine products industry. There is, however, a need for expansion of the scope of some of these schemes. For example, under the scheme of Equity Participation, MPEDA may subscribe to the paid up capital of public limited companies for deep-sea fishing or production of value-added items. Firms other than public limited companies are excluded from this scheme. It is not right to do so because projects of value-added products need not always be capital intensive, and partnership or proprietary firms can also undertake such projects.

Indeed, several partnership firms and proprietary concerns have already taken up the production and export of value added products like IQF shrimp. There are a number of other value added products such as surimi, canned clams, canned lobster meat, cured and pickled products which can be produced and exported by the small and medium scale sector which forms the backbone of India's seafood export industry. It is, therefore, essential to extend the Equity Participation Scheme to units in this sector.

8.5. Quality Problems

Complaints regarding the quality of the Indian seafood had been frequent. As a result of several measures taken to improve the quality and greater quality consciousness, the situation has improved over the years. Yet, there is a lot more to be done. It was not long ago that the Indian shrimp was block-listed by the FDA, USA, for reason of salmonella contamination. This instance has, of course, further alerted the government and the industry and the Export Inspection Council has further strengthened the monitoring of quality standards.

The greater importance given to quality by the consumers and the growing competition underline the need for constant

efforts for quality improvement. For upgrading quality of the final product, there is need for quality up-gradation at the catching, transportation, processing and packing stages. It is also necessary to educate the workers on the need for good manufacturing practices and the hygienic handling and storage of raw materials.

Besides the quality of the raw materials used, quality depends on a number of factors such as the layout and environment of the plant, the type of technology and condition of the plant, handling practices, adequacy and quality of water supply, uninterrupted power supply etc. As noted earlier, the Indian export sector is handicapped on most of these aspects.

According to MPEDA sources, by improving quality and by eliminating waste at the pre-processing and processing stages, it is possible to increase the exportable volume by 5 to 10 per cent.

Unit values obtained for Indian marine products have been less than those obtained for exports of similar products from several other countries, mainly because of the poor quality.

When a quality revolution is on in the international area, India will find herself in a very precarious situation if she fails to keep pace with international quality standards.

Along with measures to improve the quality, it is also necessary to take measures to improve the quality image of the Indian products.

8.6. Lack of Institutional Support

Although export development has been accorded high priority by the Government and several measures have been taken towards this end, the fact remains that export development in India has been retarded by institutional rigidities and inadequacy of institutional support.

As noted in an earlier chapter, the seafood export in the earlier days had almost an autonomous growth. It was only in the 1970s that modern deepsea trawlers, freezer trawlers etc. were introduced in India and it was felt that it was

indeed a matter of surprise as to how the seafood industry could have sustained itself and produced such phenomenal results over the years inspite of not having been provided with its basic requirement in the way of deep-sea

trawlers. Perhaps no other country in the fishing industry has even plodded along in this manner for so long a period.⁹

Even today deep sea fishing industry has not been provided with enough incentives. The MPEDA in its Draft Seventh Plan had pointed out that

with high costs of diesel and escalation of prices in general, operation of deep-sea fishing vessels has become highly risky. Unless subsidies on operational costs and also internal marketing of catch freely are allowed, it is not likely to attract further investment.¹⁰

We have already seen how institutional rigidities and procedural delays have been hampering export development. The MPEDA itself has in its official documents pointed out this problem. Such is the case of infra-structural constraints.

9. John P. George, "Deep-sea Trawlers: A new era in the annals of fishing industry in India", Seafood Export Journal, January 1971, p. 122.

10. MPEDA, Draft Seventh Five Year Plan, op. cit., p.9.

Although several subsidies and other concessions and incentives have been offered, they are regarded as insufficient considering the cost and other conditions in India and the international environment. In India, in several cases, government on the one hand grants subsidy on machinery and equipment and on the other hand imposes heavy customs duty on them.

The withdrawal of duty drawback for packing materials used for marine products consequent to the condition effective from 1.6.1986 that duty drawback will be given only if the duty element is 2 per cent or more of the f.o.b value further reduced the profit margin. Further, although the government professes the need for promoting exports in consumer packs, the CCS is not available to the export of consumer packs.

The long standing demand of the exporters for permission to export on c.i.f. terms was granted only recently. Exporters are also aggrieved against the hike in the inspection fee by the EIA.

Several exporters feel that the overseas offices of the MPEDA, at New York and Tokyo, need to improve their services of providing market intelligence to the exporters.

8.7. Lack of Export Culture

Lack of export culture on the part of many exporters is another handicap. Long term commitment and astute business ethics are very much essential for establishing enduring business relations and for the healthy development of exports. Unfortunately, not all exporters possess these essential characteristics.

There have been instances of deliberate deceiving by misgrading, short weight etc. Importers have also complained about renegeing by Indian exporters. Such unfair acts by some could tarnish the general image.

It may be appropriate to reproduce here the observations of an American importer of Indian seafood:

In the past, Indian shippers have been selling to any importer willing to pay one or two cents more per pound during the price boom. ... There is little loyalty to buyers who have been working with a company in India for many years. Some importers have been visiting India annually for the last ten years, and very few of them can be sure that their shippers will ship to them when the prices become stronger. ... many Indian suppliers,

during period of price rises, did not fulfil their commitments. Prices were agreed on and letters of credit were opened but shipments were not made because in the meantime the supplier had been offered a few cents more per pound and simply did not ship to his original buyer ... the ultimate result of this type of unbusinesslike action is for the importer to turn to other countries and more reliable suppliers.¹¹

As noted earlier, many exporters are fair-weather businessmen and their commitment to export development, if any, is limited. The international market for shrimp is no more a seller's market. Image of the exporter will, therefore, be more important in future.

11. Robert S. Russell, "The Rise and Fall of the American Shrimp Market", Seafood Export Journal, January 1973, pp. 119-20.

Chapter IX

SURVEY FINDINGS

Information has been collected from several primary sources to supplement the secondary data regarding the characteristics of seafood exporters, problems faced by the exporters of marine products, problems of India's marine products export sector, impressions of importers of Indian seafood about the Indian products, prospects of India's marine products exports etc.

The survey included a sample of Indian exporters and importers of Indian seafood and other knowledgeable persons like officials of government organisations associated with the seafood industry such as the Marine Products Export Development Authority, Central Marine Fisheries Research Institute, Integrated Fisheries Project, Central Institute of Fisheries Technology, Export Inspection Agency; bankers; exporters'/importers' agents; officials of trade/industry associations like Seafood Exporters' Association and Association of Indian Fishery Industries; academicians and others connected with seafood industry.

9.1. Sample Characteristics

Discussions were held with a representative sample of 30 exporters. A semi-structured pre-tested and modified schedule was used to collect required specific information from the exporters.

In 1988-89, the number of active exporters was 523 and in 1987-88 the number was 500. It was decided to cover 26 exporters, forming about 5 per cent of the total number of active exporters in 1988-89. To give appropriate representation to small, medium and large exporters, exporters were stratified into four groups on the basis of the value of exports, viz., those with annual exports of Rs. 10 crores and above, those with exports of Rs. 5-10 crores, those with exports of Rs. 1 crore to 5 crores and those with exports of less than Rs. 1 crore. It was decided that the number of exporters to be included in the sample from each stratum should be more or less in proportion to their respective share in the total exports. However, later the sample size was increased to 30 because it was found, as the research progressed, that there were some units with unique characteristics whose exclusion from the sample would not make the study all inclusive.

As has been mentioned in the introductory chapter, the sample included:

- (i) exporters with long standing experience on the one hand and those who have very recently entered this business on the other;
- (ii) small, medium and large exporters (including export houses);
- (iii) single product exporters and multi-marine product exporters;
- (iv) manufacturer exporters and merchant exporters;
- (v) exporters with own sources of raw-material supply as well as those who partly or solely depend on outside sources for raw material supplies;
- (vi) exporters using leased/hired processing facilities as well as those having own facilities; and
- (vii) partnership firms, private limited companies and public limited companies (including multinationals).

In addition to the thirty mentioned above, information was also collected from three units which had given up seafood exports for one reason or other.

Having decided the size and composition of the sample, the next task was to select the areas for survey. As the marine products export industry was widely spread in this large subcontinent, constraints of time and other resources dictated that the survey be confined to certain select areas. After discussions with officials of organisations like the Marine Products Export Development Authority; exporters and other learned persons, Cochin, Calicut, Cannanore, Quilon, Madras, Visakapatnam, Delhi and Bombay were selected, because of their representative nature, as the areas for the survey.

A stratified, judgement-cum-convenience sampling was used for the survey. Information obtained from discussions with officials of organisations like MPEDA, exporters etc. helped to identify several units with unique characteristics to include in the sample.

9.2. Characteristics of Exporters

Tables 9.1 and 9.2 give some of the important characteristics of the units surveyed. Of the four units with annual exports of Rs. 10 crores or more each, one was a merchant exporter (a Japanese firm). All the three manufacturer exporters in this category have their

Table 9.1
Break-up of Sample by the Type of Units and Value of Exports

Value of annual exports	No. of manufacturer exporters		Number of merchant exporters	Total
	with own processing facility	with leased/hired processing facility		
Rs. 10 crores and above	3 (75)	--	1 (25)	4 (100)
Rs. 5 to 10 crores	7 (87.5)	--	1 (12.5)	8 (100)
Rs. 1 to 5 crores	8 (80)	1 (10)	1 (10)	10 (100)
Less than Rs. 1 crore	5 (62.5)	2 (25)	1 (12.5)	8

Figures in the bracket indicate percentage of units to the total number of units in the category.

Table 9.2
Break-up of Sample by Sources of Raw-Material and Value of Exports

Value of annual exports	Completely own	Partly own	Completely outside	Total No. of units
Rs. 10 crores and above	--	2 (66.6)	1 (33.3)	3 (100)
Rs. 5 - 10 crores	--	2 (28.6)	5 (71.4)	7 (100)
Rs. 1 - 5 crores	--	3 (33.3)	6 (66.6)	9 (100)
Lessthan 1 crore	1 (14.3)	2 (28.6)	4 (57.1)	7 (100)

Figures in the bracket indicate percentage of units to the total number of units in the category.

own processing facilities. All of them have been in this business for a long time and have achieved considerable growth in business. Unlike the merchant exporter in this category, which exports only shrimp, all the manufacturer exporters, although originally started with shrimp, are now multi-product exporters. Two of them have also ventured into backward integration, namely, prawn farming.

Though a number of exporters have fishing operations/farming, in most of these cases the own sources meet only a small part (10 to 15 per cent) of the total raw material requirements. Only one of the units surveyed was not dependent on outside sources for raw material. But, this is because of the very nature of the unit—the vessels operated by the unit are integrated units capable of mass catching and onboard processing. It may be noted that this is the only one of its kind in the country. One of the units surveyed, whose estimated export in 1988-89 was about Rs. 2 crores, was getting as much as about 80 per cent of its raw material supplies from its four multipurpose trawlers capable of deepsea fishing. This unit is also a special case in another respect. While all other units surveyed started their business with shrimp and many still continue to be

solely shrimp exporters, this unit started with lobsters and in the survey year lobsters were estimated to account for 80-85 per cent of its total exports while in the case of all other multiproduct exporters shrimp was the predominant item.

While in the case of some of the exporters, processing and exporting represented forward integration to their fishing operations, some exporters have gone in for backward integration. Some large exporters have both "capture" and "culture" operations and also supporting facilities such as fish feed and hatchery.

The survey has also revealed that several exporters were planning acquisition of vessels.

Although it is generally acknowledged that a lack of long term commitment to the marine products exports has always been a bane of this sector, the Survey has revealed that there are quite a few exporters who have achieved considerable growth by horizontal and vertical expansion. Of course, there is still plenty of scope for them for further growth and development. A commendable achievement is that of a Cochin based company which has recently started exporting cooked ready to eat products. Again it is the only one of its kind in India.

With the commissioning of its plant to manufacture value added products, its previous major export product, viz., block frozen shrimp, has become raw material for new products. The new plant, with an investment of about Rs. 4 crores, has enabled the company to increase its turn-over four times, from Rs.50 lakhs to Rs.2 crores a month.

Some of the large exporters have expanded their business by setting up new units. One of the units surveyed, for example, has seven associated concerns, spread over in different parts of the country, processing and exporting seafood, with a group annual turnover of about 20 crores. Two of them have two processing plants each. Five units of the group are partnership firms and the other three are private limited companies.

The business background of the seafood exporters are very diverse. While in respect of some exporters export processing followed fishing operations, the business background of many exporters are quite unrelated to seafood, such as textiles, soft drinks, cinema house, real estate and electrical goods.

In respect of one of the exporters, a public limited company, starting of seafood exports resulted from the identification of this product as a potential one for export growth as a part of its corporate growth plan. The company which has been a popular name in such business as real estate, electrical goods and energy systems (some of them with collaboration with foreign firms like General Motors and Universal Electricals) started seafood exports as a merchant exporter but has been planning vendor development and setting up of its own processing plants as well.

There are also a number of seafood exporters who are exclusively in this business. Two of the units surveyed were launched by young technocrats with no business background. At the time of the Survey, it was not yet time to evaluate the success of one of them. The other one, started recently, was doing fairly well and it was in fact the ambiguity of government policy and bureaucratic hurdles that were coming in the way of its diversification and growth.

Some entrepreneurs who started with seafood business have diversified into different areas.

Most of the seafood exporting units are family managed. However, three of the units surveyed (excluding the foreign firms) were professionally managed. One of them which started the seafood export in 1958 and which is now one of the largest seafood exporters of India, has diversified into such areas as construction, shipping, computer software and educational institution. Indeed, the imprint of the professionalisation is seen in the modernisation of its seafood industry, business expansion and perspective views. Another professionally managed exporter is the one which has recently taken up seafood exports as part of the corporate growth plan mentioned above, whose seafood exports during the Survey year was estimated to be less than Rs.5 crores. The other professionally managed firm was a widely held public company whose promoters were solely in this business. This unit which came under the category of small exporters (less than Rs. 1 crore per year) and which was exporting only shrimps was unique in that it was the only one in India with onboard processing facility and was planning to venture into diversified fishing and prawn farming.

As could be naturally expected, a higher proportion of the exporters in the large category is multi-product exporters, as shown in Table 9.3. In the category of

Table 9.3
Break-up of Sample by Product Mix and Value of Exports

Value of annual exports	No. of units exporting		Total No. of units
	Single product line	multiple product line	
Rs. 10 crores and above	1 (25)	3 (75)	4 (100)
Rs. 5 - 10 crores	4 (50)	4 (50)	8 (100)
Rs. 1 - 5 crores	7 (70)	3 (30)	10 (100)
Less than Rs. 1 crore	8 (100)	--	8 (100)

Figures in the brackets indicate percentage of units to the total numbers of units in the category.

units with more than Rs. 10 crores exports, out of the four units surveyed three were multi-product exporters. The single product exporter, a Japanese firm which was a merchant exporter, was exporting only shrimp. There was not even a single multi-product exporter among those with less than Rs. 1 crore exports. All single product exporters were invariably shrimp exporters.

All manufacturer exporters with annual exports of Rs. 5 crores or more have their own processing facilities, as per the Survey findings. Table 9.1 shows that the proportion of manufacturer exporters depending on leased/hired facilities is the highest in respect of the small exporters (less than Rs. 1 crore). It has been found that in several cases the lessees change frequently. There are two reasons for this. Several inexperienced entrepreneurs who enter the seafood business with the expectation that there is quick money in this business soon find that things are very hard and quit. Secondly, there are a number of exporters who frequently change the name and address of their business for ulterior motives.

However, there are also cases of exporters who started with leased facility later acquiring the processing facility. The Survey covered three such

units with long term interest in the seafood business. It was interesting to note that two of them had already installed an IQF plant and in the case of the other, steps were taken to install such a plant.

Though the MPEDA has been encouraging the adoption of IQF by the exporters with a view to increasing the value added exports, the industry has not been adequately enthusiastic. This is revealed by the shortfall in achieving the target fixed by the MPEDA as well as the apprehensions of the exporters brought out by the Survey. Some exporters felt that IQF was not worth the investment and other troubles. One exporter stated that the IQF export was sustained by the cash compensatory support and that if the CCS would be withdrawn it would not be profitable. Therefore, with the uncertainty in the government policies it would be risky to go in for the IQF. This fear has come true now with the withdrawal of C.C.S. It may be pointed out here that, although the MPEDA claims that IQF shrimp can fetch in about 25 per cent higher value realisation, the export statistics released by MPEDA shows that the unit value realisation of the IQF shrimp was only about 10 per cent higher than the average realisation for the frozen shrimp in general. Another exporter opined that the subsidy for IQF plant was not sufficient. Yet another exporter stated

that it was more easy to sell the block frozen than IQF, as many foreign importers who bought for re-processing preferred the block frozen.

However, one of the leading exporters, who realised the IQF to be very successful, has pointed out that many exporters are averse to the IQF because in the case of IQF the quality has to be very meticulously maintained were as it would be possible to sell the block frozen even if the quality is not so good.

One unit in the category of Rs. 5-10 crores exports had a processing plant put up 10 years ago; but it was later leased out and began to get its export products packed by other processors. Thus, the manufacturer exporter became a merchant exporter, still owning the processing facilities.

Only one of the units surveyed do the entire exporting directly without any intermediary and it is the only one seafood exporter in India who has any branch abroad. Although most of the other exporters also get orders directly from the foreign buyers, part of their business is solicited by agents. Many exporters, particularly the small ones, also do indirect exporting (i.e., through merchant exporters), besides direct

exporting. It has been revealed that towards the end of the financial year many export/trading houses are on a frantic bid to obtain additional business to fulfil their targets. This provides an opportunity for many seafood exporters to earn additional income by way of commission by parting with their business to the export/trading houses. One exporter stated that such commission contributed a considerable part of his profits.

Several exporters, including leading exporters, undertake packing for foreign firms under the foreign brand names. Some exporters do packing for more than one foreign firm. A Japanese firm in India getting seafood packed by Indian processors stated that the major problem it encountered was in maintaining consistent quality and therefore it began to employ its own personnel for ensuring proper quality consistently.

Problems

The Survey has revealed that the seafood export industry suffers from the following problems:

- (1) The facilities for berthing fishing vessels and getting water and fuel for them, storage and transportation are inadequate.

(2) There are also complaints of technical problems with indigenous vessels.

(3) Harbour charges are very high.

(4) There is shortage of certain categories of skilled and trained personnel like skippers to operate the fishing vessels.

(5) In recent years, there has been a decline in the per vessel catches mainly on account of the increase in the number of vessels operating in the same fishing ground. This had tended to make fishing unprofitable.

(6) There has been an excessive concentration on shrimping at the expense of diversification of fishing activities. Lack of facilities, mainly, berthing facilities for tuna long liners, processing and marketing facilities discourage diversification.

(7) Competitive bidding for the limited supply of raw materials, particularly shrimp, sometimes raise the raw material prices to unremunerative levels.

(8) Several large companies have given up seafood business either because their high operational costs do not allow them to compete with the small firms or because the opportunity cost of the seafood business is very high.

(9) The availability of processing facilities on hire/lease has attracted many small time businessmen to the seafood export industry with no commitment of long term resources and with no long-term interests. Several such fair-weather business men are doing harm to the long-term interests of the industry. Further, all these small time fortune seekers concentrate entirely on shrimp, the supply of which has been stagnant, causing undesirable fragmentation of effort and unhealthy competition.

(10) Though several exporters also export in consumer packs, in addition to the bulk packs, exports in consumer packs are negligible. Indian exports in consumer packs are often repacked abroad and sold under foreign brand name. Thus, Indian seafood has a 'faceless' presence abroad- because of the repacking and marketing under foreign brand names, the ultimate consumers, and in several cases even the retailers, do not know that the product is Indian.

(11) Foreign importers do not encourage exports in consumer packs and sale under Indian brand names as these would eventually lead to the loss of the importers' control over the business. Indeed, any attempt by the Indian exporters to establish direct contacts with foreign

consumers or retailers is strongly resisted by the importers for this reason. One of the large Indian exporters established a depot abroad to ensure smooth supply and to establish close link with the distribution channel. However, it had to be wound up soon because of non-cooperation and, perhaps, retaliation by the importers. It was reported by one exporter that while a branch was being set up in New York, he was threatened by the seafood trade mafia there.

(12) Resource constraints come in the way of making a major thrust into the market by the Indian exporters. Unfair competition between the exporters makes the situation worse.

(13) Several exporters feel that the importers' agents in India pass on to the importers information which adversely affect the interests of the exporters.

(14) There is often undue delay in leasing out government owned brackish water and other areas for aquaculture. Bureaucratic hurdles are, many a time, too disappointing, unbearable and discouraging.

(15) Some exporters also face the problem of shortage of working capital.

(16) Because of the non-availability of, locally, skilled workers for peeling shrimp, the lone seafood exporter at Cannanore shifted the processing to Alleppey. Although there was a similar problem at Calicut, this could be overcome by bringing workers from places like Alleppey under a contractor. The contract work helped the processor to reduce the labour cost of the peeling work as the processor did not have to incur any social security expenditure.

(17) Exporters from Kerala feel that the ban on monsoon trawling has a very adverse effect on exports, particularly of shrimp.

(18) Seafood exports by some of the export/trading houses amount to trade diversion, without any contribution to real generation of exportable surplus.

(19) Foreign importers are not very happy with the packing of Indian seafood.

(20) While some exporters are of the opinion that the Indian Seafood Trade Fairs are a waste, there are others who feel that they are useful in providing an opportunity to meet many importers in one place. However, as some of the foreign delegates at the Eighth Indian Seafood Trade Fair opined, the organisation of the Fair needs to be improved.

(21) A large number of the Indian seafood exporters are not true exporters in the true sense of the term; they are rather suppliers of export goods. Further, most of the Indian exporters are not real marketers.

Chapter X

CONCLUSION

10.1. Conclusion about the Hypotheses

This study proves all the three hypotheses of the study: Export performance of marine products as well as the general export performance of India have suffered considerably because of the absence or deficiencies of export development strategy and the deficiencies in the implementation of the plans and programmes. Lucrativeness of the sheltered domestic market, small size and meagre resources of the Indian exporters and lack of commitment to export development have also contributed to the poor export performance.

An export development strategy was conspicuous by its absence in the first two Five Year Plans. Although the Third Plan recognized the need for increasing export earnings and several export promotion measures were taken, no comprehensive export development strategy was formulated. It was only in 1970 that an Export Policy Resolution was announced. Even though export promotion has been pursued more vigorously since then, the progress in identifying the thrust sectors and formulating comprehensive development strategies has been very slow. Because of the absence of an effective system

for efficient market intelligence and forecasts and developments based on them, India has been lagging behind the trends in the international market. Not only that India has not been innovative to thrust ahead in the international market but also she has been very slow even in following the trends.

India's export growth has been retarded also by the inherent biases in the economic policies against exports, as brought out in Chapter-2.

10.2. The Export Promotion Regime

Although several export promotion measures have been taken, the export promotion regime in India has been characterised by several deficiencies, limitations and problems, as pointed out in Chapter-3.

An effective export promotion regime should compensate the national exporters for the disadvantages they suffer vis-a-vis their counterparts in other countries and should make the export business profitable enough to lure entrepreneurs to this sector and achieve the ultimate objective of boosting the exports.

Available evidences, however, indicate that the export promotion regime in India has not succeeded in achieving these objective. The Abid Hussain Committee has pointed out that:¹

- (i) The present regime of export promotion policies is mostly a compensation for disadvantages faced by the exporter on account of domestic economic policies, and the element of incentive, if any, is very small indeed.
- (ii) The compensation is, perhaps, not entirely adequate, whether we consider the CCS, the duty drawback system or the import facilities for export production.
- (iii) Even if these factors were perfect in their operation, there is a wide range of factors that constrain export performance which are left untouched by the regime of export promotion policies.

Two studies about the export performance of companies financed by the ICICI had shown that export business was relatively unprofitable compared to the domestic business.

1. Government of India, Report of the Committee on Trade Policies, op. cit., p.36.

The first study² of the export performance of 55 companies for the period 1972-73 to 1974-75 as well as the second study³ with reference to 65 companies for the period 1978-79 to 1980-81 revealed that the companies were, on the whole, incurring huge losses on the export sales, without export incentives. The export incentives enabled them to take marginal profits on the export sales; but even with the export incentives there was a wide gap between the profit on domestic sales and profit on the export sales. The divergence between export and domestic profitability during the second triennium of the study was much wider than during the first indicating that towards the end of the seventies domestic marketing became more profitable while export operations, notwithstanding the availability of export incentives, became less attractive. The above findings highlight the importance of export incentives and indicates the need for a better incentive regime to make the export business more attractive.

2. ICICI, Export Performance of Companies: ICICI Portfolio (Bombay: ICICI, 1977).

3. ICICI, Export Performance of ICICI Financed Companies (Bombay: ICICI, 1985).

It has also been pointed that one of the drawbacks of the export incentives regime in India is that it is largely transparent in character.

While foreign buyers have sharp eyes for them, these constitute an eye score for the governments particularly of the industrialised importing countries. The importers try to grab these incentives almost in their entirety on the pretext of growing competition, thus depriving the Indian exporters of the benefits of the promotional measures. In fact these tend to create an insatiable urge for more and more incentives in extent and magnitude. On the other hand, the governments of the developed countries viewing these as subsidies invoke the provisions of the anti-dumping and countervailing duty laws. ... The effectiveness and purposiveness of incentives thus lie in their non-transparent character. This could be possible only by devising a policy framework with inherent and inbuilt, albeit latent, promotional incentives.⁴

4. M.L. Verma, Foreign Trade Management in India (New Delhi: Vikas Publishing House Pvt.Ltd., 1988), pp. 72-73.

A major factor necessitating large incentives is the structural weaknesses and high cost of the Indian economy. It is, therefore, necessary to remove these handicaps to reduce the need for the exogeneous incentives. Further, the institutional inadequacies and procedural complexities and delays need to be urgently attended to. Absence/lack of dynamism and innovativeness in policies, procedures, product development and marketing continue to hamper India's export development.

10.3. Reasons for Poor Export Performance

In short, the following factors have been responsible for the poor export performance of India.

1. Export pessimism and the resultant neglect of export development in the earlier Five Year Plans.
2. Over emphasis on import substitution and the resultant adverse effects of a protected market on export development.
3. Import restrictions and the industrial policy restrictions which restricted competition in the domestic market resulting in general inefficiency and relative neglect of the export market.

4. Negative impact of other domestic economic policies, like fiscal and monetary policies, on the export sector.
5. The long delay in the recognition of need for action and the long time gap between need recognition and action.
6. Lack of an effective export development strategy that is properly integrated with appropriate macro economic development strategy.
7. Deficiencies of objective setting and policy formulation.
8. Inefficiencies of the institutional system and deficiencies of the export promotion regime.
9. Small size and meagre resources of the exporters.
10. Lack of long term export perspective on the part of several exporters.

10.4. The Case of Marine Products

The case of marine products exports has also been the same. In the early stage, the growth of marine products export was more or less an autonomous one in the sense that it was not promoted by any specific external (i.e. government)

stimulai. It was the Draft Third Five Year Plan which, for the first time, incorporated export earnings as an objective of fisheries development. Although the Marine Products Export Development Authority was constituted in 1972 with the objective of development of the marine products industry with special reference to exports, development efforts have been hampered by lack of co-ordination between the several agencies responsible for one or other segment or aspect of development, role conflicts between the agencies, lack of sufficient authority for the Authority, deficiencies in the implementation of the development plans etc. As the Seafood Exporters' Association of India in its memorandum submitted to the Central Minister of State for Commerce on the occasion of inauguration of the new headquarters building at Cochin on 11.6.1990 has pointed out, on several occasions the Central Government have turned down the recommendations of the Authority which were made after a lot of deliberations. Several times the Authority has also pleaded its inability to take certain development measures for want of authority and has also pointed out the hampering effect of procedural delays on the development of deepsea fishing and export development.

The development of the marine products exports, as that of the export sector of India in general, has been retarded by the lag in the recognition of need for action, lag in the formulation of action plans and the lag in the implementation of the plans, besides the deficiencies of the plans themselves.

It is true that the export performance of marine products until the late 1970s was very impressive in comparison with that of the export performance of India in general. This rapid growth in marine products exports was facilitated by two factors, viz.,

- (1) the demand expansion for shrimp, particularly in the U.S.A. and Japan, and the absence of severe competition until recently, and
- (2) the good response of the Indian entrepreneurs, motivated by the lucrativeness of the shrimp exports and facilitated by the easy availability of freezing technology, to this demand expansion.

India, however, has not been successful in meeting the real challenges of seafood exports. This is evident from:

- (i) the near stagnation in the quantity of shrimp exports since the late 1970s due to supply constraints and the consequent fall in the market share;
- (ii) the very slow progress in value added exports;
- (iii) the very slow progress in the product and market diversification; and
- (iv) lack of innovativeness.

In other words, India could not forge much ahead in the international market by effectively carrying out the development process demanded of in the different situations with reference to the product-market nexus described in the introductory chapter.

The situation I, characterised by well established product-market nexus, had been true of India's shrimp exports.

In the introductory chapter, reference has been made to three important possible risks which entail this situation. Shrimp has so far been spared by the second risk mentioned there, viz., set back to exports due to competition from substitutes. In fact, weak supply of

certain crustacean species such as lobsters has had favourable demand effects on shrimp. Further, the general increase in the health consciousness has caused an increase in the shrimp consumption at the expense of non-seafood meat as pointed out in Chapter-6.

The first risk envisaged under situation I in the introductory chapter, viz., loss of market share due to new or intensified competition, has already become a reality in respect of shrimp, the major marine product of India. With substantial increase in supplies from other countries, India lost the pre-dominant position it had been enjoying in the international shrimp market. India's inability to increase the supply to the expanding international market enabled these exporters to easily sweep forward.

While in respect of frozen shrimp, India's market decline was only in relative terms, in the case of canned shrimp there was a terrible decline in market in absolute terms too. Export of canned shrimp declined from 2000 tonnes in 1973 to a meagre 13 tonnes in 1988-89 and in 1989-90 it was nil. Due to severe competition from China, the export of small size shrimp is facing difficulties.

The small size shrimp is, however, suitable for canning. India has now to struggle very hard to regain the lost ground in canned shrimp.

The set back to the export growth of India's premier seafood item came from the failure to pursue a development process that facilitated sustained development of a well established product-market nexus. The major drag has been the failure to augment shrimp supplies to take advantage of a growing market. The slow progress in deep sea fishing and aquaculture has, thus, retarded the growth of Indian seafood export.

The nose-diving of the canned shrimp exports show the failure of the development process to sustain established product market nexus as it is a result of lack of appropriate policy and other development support. While the government clamour for the development of value added exports, particularly in consumer packs, the ironic case of the canned shrimp exports is indeed a sad commentary on the development process of India's marine products exports.

The third risk mentioned under situation 1 has occurred in the case of export of dried fish.

Because of certain features of the marine products industry, there is some overlapping of the situation II (product and foreign market exist but the product-market nexus is not established), and situation III (market exists, product does not exist). The following situation would make it clear. If a species with export demand is available within India's EEZ, one may say that the product exists. But, at the same time, it would not be completely right to say that the product exists if the nation does not have adequate operational paraphernalia to catch that species in economic quantities. And this is the case in respect of several species in India's EEZ.

As pointed out in Chapter-4, the level of exploitation of several resources with good export potential like tuna, cephalopods, deep sea lobster/ deep sea prawn, perches etc. is very low. Unless the production reaches a certain level, it would be difficult to maintain a hold over the market as a fairly large and stable supply is necessary for the importers to feel dependable on a supply source.

India's slow pace of development in export diversification is a reflection of the failure to successfully

tackle the situations II and III. Further, India's failure to increase shrimp exports due to supply constraints while the international shrimp market has been growing is also a reflection of these situations.

These situations are further reflected in the slow progress in the value added exports. Even the export of IQF started only during the Seventh Plan. Chapter-6 has given some indications of the trends in product developments abroad. India lags far far behind in several cases. India's failure to significantly share the growing market for surimi is just one example. It has been rightly pointed out that

the agreement recently entered into by a Japanese company with an Indian private sector concern for producing surimi ... with a 100 per cent buy back arrangement has once more brought to the fore the lack of development of the marine products in the country. The Japanese have found after intensive studies that some of the Indian fish varieties are very good for the manufacture of surimi, the world trade in which was estimated to have reached Rs.2600 crores by 1987.⁵

5. Editorial, "Where is the Thrust?", The Economic Times, October 26, 1987.

That the initiative for this should have from the foreigners is indeed an indication of the lack of real thrust in the 'thrust sector' and the deficiency of the export development process.

The situation IV depicted in the introductory chapter is a case where product exists but a market does not exist for it. There may be several products for which there is no market currently but with chances of developing market for them. Chapter-6 has pointed out that several species which did not have a market in the past have come to occupy a good market now.

The Indian fishery resources include many species which do not have an export market now. Hardly any effort is made to cultivate market for them.

Many marketing successes have emerged out of situation V, i.e., neither product nor market exists. As a matter of fact, consumers were not aware of the full utility of many innovative products until they were demonstrated to them by successful marketers. There are indeed often opportunities for identifying potential needs of consumers and developing products accordingly. Some of these potential needs may be

characterised by latent demand, i.e., consumers realise the need for particular product but such a product is non-existent. In other cases, an innovative but right product marketed properly creates demand.

As pointed out in Chapter-6, the international seafood market is very innovative and new products and product forms are being introduced. Many years ago, for instance, many consumers would not have even imagined of a product like surimi, the global production of which in 1990 has been estimated by the Globefish to be between 40,000 - 50,000 tonnes.⁶

As stated earlier, not only that India has not been innovative but also she has been very poor in absorbing the innovations made elsewhere.

The preceding paragraphs, the observations of which have been supported by the analysis made in the preceding chapters, highlight the deficiencies of the export development process in India in establishing enduring product-market nexus in all the different situations. As mentioned in the introductory chapter, export development process

6. Anon, "Up-trend in world surimi production to continue", Seafood Export Journal, May 1990, p. 29.

involves the establishment of product-market nexus by the initiative and active effort, either singularly or jointly, by the following actors, namely, the exporter, the state, and the importer. In the Indian scene one can notice the development efforts made by all these actors. However, they have not, in general, been timely, of sufficient magnitude and properly integrated so that the expected level of results could not be achieved. These actors have had their own deficiencies and constraints.

Most of the exporters are of small means so that they have resource constraints in performing the challenging tasks demanded under the different situations. The disintegrated nature of the industry has also been a problem. Further, lack of long-term commitment and lack of willingness to take risk by the exporters have hampered the development process.

Government of India has, of course, assumed a catalistic role and has been seeking to actively promote exports. Efforts have, accordingly, been made to identify products with export potential, develop markets, increase fish production, establish and improve processing facilities, develop infra-structure, provide promotional

assistance and incentives etc. There has, however, been a lot of slip between the objectives and performances, as has already been pointed out in several places in this report. It is also important to note that the drawbacks/deficiencies of government policies and the procedural delays have come in the way of establishing the product-market nexus by the Indian firms and also jointly by the Indian and foreign firms. As it was pointed out to an Indian delegation to Japan, many foreign firms were "hesitant to enter into any joint programmes with India due to the delay in completing the required formalities as also problems relating to repatriation of profit and capital".⁷

As pointed out in Chapter-6, packers in the developed countries have been shifting the loining part of the processing to the developing countries. Mr. Minoru Yoshioka, President, Japan Marine Products Importers' Association, while addressing the delegates to the Eighth Indian Seafood Trade Fair at Madras on February 11, 1989, has stated that because of the high labour cost at home, Japan prefers the labour intensive

7. MPEDA, Report of the Indian Marine Products sales-cum-study team to Japan (Cochin: MPEDA, March-April 1982), p. 8.

processing to be carried out in the developing countries and that in future Japan will have more value added imports. While several other countries, eager to seize such opportunities, provide very conducive environment for foreign investment and collaboration, India will suffer if she does not properly respond to the environmental realities.

10.5. The Emerging Global Market

All indications are that the demand for fish will continue to grow. As fish production in the major markets is unlikely to increase significantly, except that of certain species mostly by culture fisheries, international trade in seafood will continue to grow. Shrimp will continue to be the major category traded.

Aquaculture production of several species will substantially increase in future and this will have a profound impact on the market. The impact of a large supply of farm raised shrimp is already felt. "Aquaculture has removed shrimp from the list of luxury seafood item. Now a commodity similar to chicken and hamburger, shrimp will be available year long and at reasonable price in the foreseeable price".⁸

8. Peckham, op. cit., p. 70.

The seafood sector has been expanding by increasing the variety offered to the customers, including new species some of which have been substituting certain traditional ones in short supply, and new product forms. The seafood industry will have to continue to be innovative to thrive in future, for it has to keep pace with the developments in the food industry. Consumers all over the world now pay a greater attention to convenience. Present market trends reflect a rapidly growing market for ready to eat convenience products. Added to this is the growing popularity of microwave ovens. Battered and breaded fish products will be especially well suited to cut a bigger share of this growing market. This utilisation form lends itself to an optimum use of fish flesh giving processors the edge to stay competitive. The following observations about the likely developments in the future in the U.S. are indicative of the general trends in all the developed markets.⁹

Consumers can now look forward to more product forms in the market place. Like chicken in the 1960s, seafood products will be 'cut to order' for wholesale and retail customers.

9. Editorial, "The New Decade", Seafood International, January 1990, p. 3.

Retail shops have already begun to take this one step further and offer fully prepared or ready for the oven entrees in the meat or seafood case. By the year 2000, nine out of ten homes in America will use microwave ovens. The tendency to assemble meals rather than prepare each dish from basic ingredients will strengthen in the 1990s. Experts predict that by the turn of the century, in-home preparation of the main evening meal will take fifteen minutes. Fish and shellfish are ideal for this- an inch thick fish steak requires only 10 minutes of cooking, raw fish can be cooked in a fraction of that time.

As the 21st century approaches, food manufacturing technology will combine seafood proteins with other foods for products with more health giving properties The huge increase in production and sale of products made from surimi, a pollock based protein is testimony to their broad appeal. In the coming decade, surimi based protein will be used as ingredients in their foods and as the base for non-seafood products.

Herb Baum, President of Campbell U.S.A. points out that¹⁰

10. Anon, "Americans call for maximum convenience", European Frozen Food Buyer, September 1989, p. 38.

in the early days anything micro-waveable was O.K. Now consumers are looking for more quality and even more convenience. Any time you offer a product with a cooking time greater than five minutes you are getting into a broader line of inconvenience. In terms of packaging there will be a tremendous move to microwave containers which will offer the consumers the option of using the package as both the cooking and serving vessel.

The seafood industry is growing more technology oriented and highly competitive. It has been pointed out that in the long run, the winner on the high grade seafood markets will be those suppliers who succeed in reaching as many of their customers' senses as possible—sight, smell, imagination as well as taste. This means that the seafood suppliers "will have a lot more to do than just sell fish even if it is a good quality fish. They will have to develop a lot of new ideas, almost works of art, based on the combination of product with marketing".¹¹

11. Herby Neubacher, "How to cope with the European Seafood Market: Keep the Customers Satisfied", Fish International 6/1989, p.4.

The concerted efforts by the developing countries to increase seafood exports as an important means of foreign exchange earnings will intensify the competition in future. Already about a hundred countries produce shrimp and about sixty of them produce commercial quantities large enough to enter the international market.¹² The break-through in aquaculture has already thoroughly alterned the market positions and farm production will have a greater effect on the market in future. Farm production of shrimp in Asia is estimated to triple to 750,000 tonnes by the end of this century.¹³

A 1989 World Bank study points out that¹⁴

the principal challenge for shrimp producers in developing countries over the next five years is how to market the increasing quantities of products that will be available as a result of aquaculture expansion. Estimated growth in demand for shrimp products suggests that without a reduction in real price the market can absorb an annual increase in supplies of

12. Peckham, op. cit., p. 62.

13. Anon, "Asian farmed shrimp output could triple to 750,000 tonnes in a decade", Quick Frozen Foods International, January 1990, p. 80.

14. The World Bank Industry and Energy Department, The Shrimp Industry: Global Subsector Study (Washington: World Bank, December, 1989), p.3.

approximately 3 percent to 4 per cent annually. Should supplies increase by 5 per cent to 7 per cent annually, as is expected, real price for shrimp could drop by 6 or 10 per cent annually over the next few years.

The above study points out that the likelihood of declining prices for shrimp over the next five years has a number of important implications for shrimp producing countries, namely:¹⁵

Investment in new shrimp culture ponds will decrease as profit margins decline.

Farmers using the high-input intensive culture system may have to revert to the less expensive semi-intensive system as more shrimp supplies become available on the international market, only those farmers with low production costs will be able to remain competitive.

Governments should no longer encourage the expansion of shrimp culture into new areas. They should support the structural improvements of existing ponds, which would lead to increased production.

15. ibid.

In fact, these predictions are really happening now.

Besides the demand-supply forces, the dynamics of the seafood market encompass innovations in production, preservation, processing, transportation and marketing. Exporters, to be successful, will have to be sufficiently responsive to this competitive environment.

10.6. Problems of Indian Marine Products Export Industry

With the vigorous export drive by several countries, the international market for seafood is becoming more and more competitive. India's marine products industry is very weak to face this growing challenge. The major problems are:

- (i) Scarcity of raw materials
- (ii) Weakness of the industry caused by such factors as:
 - (a) lack of integration,
 - (b) large number of units and excess capacity,
 - (c) technological obsolescence, and,
 - (d) lack of diversification.
- (iii) Infrastructural constraints
- (iv) Financial constraints
- (v) Quality problems

- (vi) Inadequacy of institutional support
- (vii) Lack of export culture
- (viii) Policy distortions and bureaucratic hurdles.

In short, even though several measures such as providing and improving facilities for landing, providing insulated fish boxes for bringing raw material to the factories; providing refrigerated trucks for transportation of finished products; education of workers by extension activities, assistance for improving processing facilities, development of capture and culture fisheries and so on have been taken for developing the seafood export industry, much remains to be done for modernising the processing facilities and improving the infrastructure and the general standard of Indian marine products to the best international standards.

The Marine Products Export Development Authority is understood to have proposed several measures to be taken during the Eighth Plan to strengthen India's marine products export industry. Past experiences should be a guide to the future and more attention should be paid to remove the procedural delays and to prompt implementation of schemes and plans. Further, the schemes and plans should be formulated with due consideration to the fast changing international environment.

Now that the international competition has become very severe, no effort shall be spared for the swift and healthy development of the industry.

Currently, India suffers from certain disadvantages vis-a-vis her competitors. India has been a traditional exporter of seafood, albeit confined, by and large, to shrimp. And her seafood industry is traditional too. On the other hand, the newly emerged competitors have been establishing the industry on modern lines, making use of the state of the art technology in many cases. As these economies are quite accustomed to the quick absorption of modern technology from different parts of the world, the development of the seafood industry on such lines has only been natural, compared to the institutional, economic and cultural hurdles for such a development in India. Further, several of the Asian exporters have cost advantages over India due to the high productivity of their aquaculture and proximity to the market. In short, the Indian seafood export industry has a growing challenge ahead.

10.7. Prospects of Indian Seafood Exports

Though the competition is increasing, India can look forward for further growth in seafood exports if proper measures are taken.

The widespread diseases which affected the aquaculture crop in several countries and the growing costs which tend to make intensive aquaculture uneconomical appear to make India's position less unfavourable than that was thought of recently.

The strategic strength of India is the large resource potential. The major weaknesses include inadequacy of institutional support, restrictive regulations, bureaucratic hurdles and poor marketing capability.

The MPEDA has set an export target of 242500 tonnes and Rs. 1500 crores by 1994-95 (See Table 10.1). It may, however, be noted that in 1990-91 both the quantity and value of exports were considerably lower than the original targets. However, they were higher than the revised targets. The growth rate of quantity (23 per cent) and value (38 per cent) of exports over the previous year were also encouraging. By taking the measures recommended in the next chapter, it should be possible for India to forego ahead in the expanding of international market for seafood.

Table 10.1

Export Target of Marine Products during 8th Five Year Plan*

Q: Quantity in tonnes
V: Value Rs. lakhs @

Item	1990-91	1991-92	1992-93	1993-94	1994-95
Shrimp	Q: 62000	63500	65000	67000	69000
	V: 55800	58420	61100	64400	67620
IQF Shrimp	Q: 3500	5000	8000	11000	15000
	V: 3300	5500	9050	12800	18000
Lobsters	Q: 3200	3400	3600	3800	4000
	V: 5200	5610	6100	6700	7070
Cuttlefish	Q: 12500	15000	19000	21000	25000
	V: 4500	5490	7200	8400	10500
Squid	Q: 24000	27000	35000	40000	45000
	V: 7910	9180	12600	15200	18000
Frozen/fresh fish	Q: 10900	15000	18000	20000	25000
	V: 2700	3750	4500	5000	6250
Tuna	Q: 24000	28000	33000	40000	50000
	V: 8400	9800	12200	14950	20000
Dried fish	Q: 4500	5000	5000	5400	5500
	V: 540	600	600	650	660
Shark fins/fishmaws	Q: 300	300	300	300	300
	V: 600	600	600	600	600
Others	Q: 3500	3500	3500	3700	3700
	V: 1050	1050	1050	1300	1300
Total	Q: 148400	165700	190400	212200	242500
	V: 90000	100000	115000	130000	150000

* For the period originally contemplated.

@ At the pre-devaluation rates.

Source: MPEDA.

Chapter XI

RECOMMENDATIONS

Findings of this study suggest that for improving India's export performance the following areas need serious attention.

- (i) Environmental analysis and formulation of a suitable export development strategy and its effective implementation.
- (ii) Proper integration of the export development strategy with the national development strategy.
- (iii) Planned production for exports to generate adequate exportable surplus and stabilise supplies.
- (iv) Continuous monitoring set-up for quality improvement.
- (v) Thrust in international marketing.
- (vi) Synchronised development and improvement of infrastructural facilities.
- (vii) Policy and procedural reforms.
- (viii) Proper integration of the various export development measures.

The need to improve the export performance of Indian marine products calls for the adoption of a two-pronged strategy for the development of India's marine products exports, encompassing measures to increase production and measures to increase the competitiveness.

These measures encompass the following areas:

- (i) Export production
- (ii) Marketing
- (iii) Governmental and institutional supports

11.1. Export Production

Export production with reference to marine products involves two phases, viz., production of raw material and processing of the raw material for export.

The emphasis should, obviously, be on increasing production of the species and product forms with good export potential and high value realisation.

11.1.1. Raw Materials Production

11.1.1.1. Development of Capture Fisheries

Production of several species with good export potential has been hampered by the problems and limitations pointed out in Chapter-4, particularly those relating to

deep sea fishing. The MPEDA proposes an almost doubling of the production of tuna, cephalopods, deep sea lobster and prawn, and perches by the end of the Eighth Plan. This is based on the expectation that 100 tuna long liners, 25 tuna purse seiners, 100 medium trawlers and 200 mini trawlers would be introduced during the Eighth Plan. The severe shortfall in achieving the original target of the Seventh Plan regarding the number of deep sea vessels indicates the need for several measures to encourage deep sea fishing ventures. There are indications that the interest of large industrial houses is reviving in deep sea fishing after many years. Further policy and procedural measures to enlarge this brooks no delay. Policies regarding chartering and joint venturing should be made more pragmatic. The tying of acquisition of foreign vessels to indigeneous vessels should be given up.

All except a few deep sea vessels in operation in the Indian EEZ are undertaking demersal trawling. A number of them could, however, be rigged for diversified fishing for tuna, cephalopods etc. Required institutional support should be provided to facilitate such diversification.

11.1.1.2. Development of Acquaculture

As pointed out earlier, there is enormous scope for increasing shrimp production by acquaculture. The average yield of shrimp farms in India is very low, as pointed out in Chapter-5. The low level of productivity in India has been attributed to the absence of suitable package of technology and inputs such as seed and feed. Productivity increase is needed not only to increase the supply but also to improve the cost competitiveness and profitability. In shrimp farming, emphasis should, therefore, be placed on both productivity increase and area expansion.

Besides shrimp, it is possible to raise other exportable varieties of aquatic organisms like fin fishes, sea bass, grouper, crabs, clams, sea cucumber etc., and aquarium fishes.

11.1.2. Export Processing

As brought out in Chapter-8, technological upgradation of the processing sector is very much essential to reduce waste and increase exportable surplus, improve quality, increase value added exports and to improve the performance of the seafood industry as a whole. This requires policy-assistance packages.

In view of the existence of large excess capacity for block-freezing of shrimp and fish, new plants for this shall be permitted only in exceptional cases. The pace of growth of IQF and accelerated freeze drying should be accelerated. Production of items such as breaded shrimp, squid rings, surimi and seafood mixes require the induction of technology as well as marketing know-how. Similarly, export of live products will require new technologies in packaging and transportation.

Foreign collaborations involving state of the art technology for value added export production, particularly at the upper end of the product segment, need be promoted. The new government under the Prime Ministership of P.V. Narasimha Rao have announced that they would have a more liberal attitude towards foreign technology and capital. Several developing countries have been very quick to seize the opportunities provided by international sourcing and relocation of processing. It will be suicidal if India loses further time on this.

The tendency of the export and trading houses to export by trade diversion, as pointed out in Chapter 9, should be discouraged. They should be encouraged to increase exports by generating exportable surplus. By

providing a congenial government environment, the corporate sector could be encouraged to spearhead vertical integration in the marine products export industry.

11.1.3. Development of Infrastructure

Infrastructural inadequacies have already been highlighted in earlier chapters. Improvements in export production and marketing require infrastructural improvements.

11.2. Marketing

Improvements in marketing are required for improving market penetration, improving the hold over the market and improving unit value realisation. Further, the growing competition emphasises the urgent need to give the due importance to marketing.

For developing India's marine products' exports, concerted marketing efforts are required in the following areas:

- (i) Developing a high profile image in general and for marine products in particular.

- (ii) Getting more direct access to channels close to consumers and to the consumers.
- (iii) Deepening and widening the market penetration.

11.2.1. Image Building

As noted earlier, Indian seafood exports do not enjoy a good reputation in respect of quality, reliability of supply etc. The remark of an official of the biggest super market chain in Japan that though they would very much like to deal with India, the distance involved, uncertainty of quality and steady supply and unfamiliarity were the main factors preventing them from doing so¹ is a reflection of this fact.

For the efforts of India to diversify its exports to succeed, it is also important to effectively project India as an exporter of variety of products. One of the Indian trade delegations to Japan was indeed surprised to note that in Japan many people think of India only as a shrimp country without being aware of other items of marine products available in India,² although in

1. MPEDA, Report of the Indian Marine Products Sales-cum-Study Team to Japan, op. cit., p. 31.

2. ibid., p. 51.

addition to shrimp, there were more than 200 species caught in India and India was number sixth in the world fish production. Of course, MPEDA and other agencies have been trying to project the diverse export capabilities of India. However, in their advertisements and other promotional materials, there has indeed been a clear bias in favour of shrimp as is evident from the dominance shrimp displays in the logo of the Indian seafood trade fair, illustrations of the cover page of the Seafood Export Journal etc.

Considering the role assigned to the MPEDA in promoting India's marine products exports and the poor resource position of the exporters, the MPEDA should play a major role in building up an image for the nation. The Authority has, of course, been promoting Indian marine products abroad. Greater efforts are, however, needed in this direction. For promoting the image of the Indian seafood and to enable the sale of the Indian product under the Indian brand name, the MPEDA should promote a common logo, as has been done by the Tea Board (the 'Darjeeling' logo). Only exporters who consistently maintain proper quality shall be permitted to use this logo. Exporters can use their own "family" or "individual" brand name along with the common logo. The systematic

promotion of the common logo will, thus, boost up the image of the Indian seafood generally and help exporters to promote their own brands, in particular. This will also facilitate higher value realisation for the Indian products.

The promotion of the logo will involve a substantial outlay. This shall not make the MPEDA/government fight shy. It should be viewed as a critical minimum investment needed to make a meaningful impact that will pay off well for years to come.³

However successful the institutions may be in projecting a good image, it is up to the exporters to establish and sustain the image so projected. It is, therefore, necessary that the exporter imbibes the export culture and develops a long term view. It has been reported that some exporters are in the habit of winding up units after some time and opening up new units as if they had nothing to do with the old ones they wound up. To check this unhealthy practice, registration may be

3. It has been reported that in 1988-89, the first year of the launching the Darjeeling logo, the sale of Darjeeling tea went up by anywhere between 30 and 40 per cent over the normal figures, according to estimates. What is more, there was an increase of 15 per cent in unit value realisation (Raju Parmer, "A Brand New Image", Advertising and Marketing, July 1989, p. 67.)

granted to a new exporter only after careful verification of the past records of the persons concerned.

While formulating strategies for image building, it should also be remembered that the image about the exports from a country is influenced by the country image. Simultaneous efforts should, therefore, be made to project a very good country image.

11.2.2. Development of Distribution

More direct access to the consumers (direct marketing) and to the channels close to the consumers will be helpful in increasing the unit value realisation of the export and in improving the hold over the market. But, currently the presence of the Indian marine products in the foreign market is a "faceless" one. Indian products are often reprocessed/repacked in the foreign country and sold under the brand name of the foreign packers and the consumers and the channel members do not know the original source of supply. Thus, the Indian exporters, not having any direct contact with the ultimate consumers and with the channels close to the consumers, become too dependent on the foreign importers who are reprocessors/repackers. To liberate

the Indian exports from the market power of such importers, Indian exporters should succeed in direct marketing to institutional consumers like restaurants (which, as noted in Chapter-6, accounts for the lion's share of frozen shrimp) and channels close to the consumers, i.e., the retail outlets and in popularising and establishing Indian brands. In short, Indian exporters should become real marketers in contrast to the present situation of being mere suppliers of export goods. One major hurdle in achieving this is the smallness of the size of the Indian exporters and the consequent dearth of resources. This situation makes emergence of large and committed exporters essential.

The strength of distribution is very crucial in deepening and widening market penetration. That is why companies from countries like Japan and Korea give so much importance to building up strength in distribution by buying up interest in distribution firms and otherwise.

To develop a distribution base for Indian marine products, we make the following recommendations:

- (1) As it is very difficult for the new and small firms to get shelf space in the department stores and

super markets, the MPEDA should buy shelf space and allocate it to the Indian exporters at a highly subsidised rate. This facility shall be made available only to those exporters who pay meticulous attention to quality and promoting their own brand names.

2. The possibility of acquiring shares in chain stores by a consortium of all the Export Promotion Councils, Commodity Boards, Export Development Authorities, Trade Development Authority, Trade Fair Authority of India, State Trading Corporations and the Exim Bank should be explored. As most of the Indian products face similar problems in distribution, such a consortium approach will help to mobilise more resources and to economise on resource use. The involvement of NRIs in this may also be explored. The purpose of acquisition of shares in the distribution outlets, obviously, is to facilitate sale of Indian products.

3. The possibility of setting up a new distribution net-work by such a consortium in collaboration with NRIs or others should also be explored. This distribution net-work will distribute a large assortment of goods (Indian goods will form only a part of the total sales) to attract a large consumer traffic and to make the venture commercially successful. The primary objective

will be to promote the sale of Indian goods under Indian brand names. The establishment of such distribution network will also make new product launches easier.

4. Indian firms should be encouraged to enter into strategic alliances with foreign firms with modern technology and marketing muscle for producing and marketing high value added and innovative products. Many foreign firms are, in fact, very eagerly looking for such alliances with firms in developing countries, as pointed out in Chapter-6.

5. A carefully formulated strategy of niche marketing would give a tremendous boost to the marketing of Indian products under Indian brand names. It may be noted that some Indian brands of relatively small companies have become successful in foreign markets by adopting niche marketing. Potential market segments ignored or neglected by others can be chosen for gaining an entry into the market and building up a market share and reputation. As the niche marketing avoids direct confrontation with major firms and as it amounts to serving segments which are underserved or unserved by others, this is a proposition beneficial to all the parties, viz., the marketer, the intermediaries and the consumers of

these segments. As the niche marketing is fast catching on, any delay in effectively employing this strategy by Indian firms would lead to foreclosing of this opportunity to Indian firms by others.

For the successful implementation of the above recommendations, an integrated approach is essential.

As noted in Chapter-6, the channel structure has been undergoing changes in all the major markets. Some of these changes have been conducive to making more direct marketing contacts with the consumers and channels close to consumers. However, India has not succeeded in seizing this opportunity.

Chapter-6 has given some information relevant to product promotion. For example, as suggested there, getting into the gift catalogue of super markets in Japan will be worth trying to promote Indian brands.

11.2.3. Market Penetration

Some amount of success has been achieved recently in penetrating new markets. There should be a further thrust into these markets. In addition to the major markets, the MPEDA has identified several countries and regions, viz., Thailand, Singapore, Australia, USSR, Malaysia, Greece and the Middle East as having excellent export opportunities for India.

Several exporters fear that once the Europe 1992 becomes a reality, it would be very difficult to export to the Community. The European Market unification is not likely to considerably affect the imports from outside and as such there is no reason for such an apprehension. On the other hand, the single market will ease procedural problems. What is needed is a gearing up for the new environment instead of being unnecessarily apprehensive.

11.3. Government and Institutional Support.

As brought out through out this thesis, export development in India has been affected by a host of macro and micro factors. An improvement in respect of all these factors is necessary for accelerating the pace of export development.

Despite all the tall talks about the policy and procedural improvements, the fact remains that there is still a long way to go in this direction. The Open House on Exports held in Cochin on 26th June 1990 has brought to the fore once again many of the bureaucratic hardships the exporters suffer. The replies by the Ministers and Officials of the Ministry of Commerce to the grievances of the exporters have amply demonstrated that it was high time that an Open House was held between

the various Ministries and Departments of the Central and State Governments with a view to sorting out the problems caused by inter-ministerial, inter-departmental and inter-governmental differences of opinion on account of incomplete or distorted information and lack of clarity in policy and procedural aspects. Further, communication gaps and lethargic attitude culminate in insufficient action or delayed action.

The need for an improvement in the economic and business environment that will reduce the need for visible incentives, as referred to in Chapter 3, has also been once again highlighted by the Open House.

The marine products industry should be encouraged to make best use of the new business environment emerging from the economic policy changes and procedural reforms introduced by the new government.

To make the institutional set up for the development of the fisheries sector more effective, the following measures have been recommended.

(1) There should be proper co-ordination and monitoring of the activities of the various agencies.

(2) The MPEDA should be assigned specific functions and responsibilities of execution of programmes and projects for the development of fisheries in the off-shore and deep-sea by the Ministry of Agriculture which has the overall administrative responsibilities for these fisheries.

(3) MPEDA should be given a formal status of a catalyst and consultant by the Ministry of Agriculture and maritime states for the development of infrastructure facilities such as fishery harbours, fish storage, facilities for purchase and sale of raw fish etc. and establishment of an agency for management of fishery harbours.

(4) MPEDA's services should be utilised by the State Governments for the development of a sound domestic marketing infrastructure by developing facilities and system for marketing of fishery products and their promotion in the interior parts of the country with a view to developing a firm domestic market base.

(5) MPEDA's services should be utilised for implementing the development plans and projects for inland, inshore and brackish water fisheries.

(6) MPEDA will have to be actively involved in the task of coordinating the activities of various fishery research and training institutes and agencies presently functioning under ICAR and the Ministry of Agriculture for transferring and percolating their findings and marketing of fishery products.

Besides the above recommendations made by the Report on the Review of MPEDA by the IIFT,⁴ we make the following recommendations:

(7) The MPEDA should open a Trade Promotion Office in the EEC in view of the great potential of this market and should improve the functioning of the Trade Promotion Offices at New York and Tokyo so as to effectively carry out their functions and serve their real purpose.

(9) The MPEDA should more actively involve in export marketing by taking, inter alia, the measures suggested under the Sections 11.2.1 and 11.2.2.

4. Indian Institute of Foreign Trade, Review of MPEDA (New Delhi: IIFT, 1987).

(10) Some of the Divisions of the Authority need to be further strengthened by human resource development and acquiring the required physical facilities.

(11) The MPEDA should be given real authority and more autonomy needed to carry out its functions expeditiously.

As pointed out in several places in this thesis, reforms at the macro level along with the reforms at the sectoral level are essential to make the export development efforts fruitful.

Further, there is need for a greater appreciation of the broad benefits of export development. An unhealthy tendency is to over-emphasise the foreign exchange objective of export development. The benefits of export development should be viewed in their totality and there should be proper integration of the inter-sectoral and intra-sectoral development plans for a better ramification of the benefits of development. The benefits of fisheries development should, thus, be viewed in their totality. There should be due recognition of the employment potential and other welfare effects of fisheries development, besides foreign exchange earnings. Such a comprehensive view of

the development objectives will strengthen the cause for speedier development of the fisheries sector and will eventually give a boost to the exports. There should also be a concurrent development of the domestic market to improve the domestic availability of fish and fisheries products and to help improve and stabilise the fisheries industry.

APPENDIX
SCHEDULE FOR SURVEY OF EXPORTERS

1. Name and Address :

2. Type of Organisation

- i) Public Ltd. Co. :
- ii) Private Ltd. Co. :
- iii) Partnership :
- iv) Any other :

3. For how long have you been in the Seafood Export Business :

4. Particulars regarding other business, if any :

5. Details of exports:

Products	Quantity		Value	
	1987-88	1988-89	1987-88	1988-89
Shrimp				
Lobster				
Cuttlefish				
Squid				
Others (specify)				

6. Category of exporter

- i) Manufacturer exporter :
- ii) Merchant exporter :

7. If manufacturer exporter, how do you export the products?

- i) Directly :
- ii) Through Agents :
- iii) Through Merchant Exporter :

8. If you export through agents/merchant. exporter, what are the problems with them, if any?

9. Do you have IQF facility? Yes/No

If no, do you propose to have it? Yes/No

Give reasons.

10. Processing Facility

- i) owned :
- ii) hired :

11. Sources of raw material supply with details.

- i) own :
- ii) others :

12. If you have fishing operations, what are the problems, if any?

13. How do you export?

- i) in bulk packs :
- ii) in consumer packs :
- iii) both :

14. What, in your opinion, are the problems in marketing the product in consumer packs abroad.

15. What are your comments on the export incentives.

16. What is your opinion about the support from government organisations.

