

GROWTH AND CHANGING STRUCTURE OF THE PRAWN EXPORT INDUSTRY IN KERALA, 1953 - 83

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the requirements for the award of
the degree of Master of Philosophy in Applied Economics
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SEBASTIAN MATHEW

Centre for Development Studies
Trivandrum

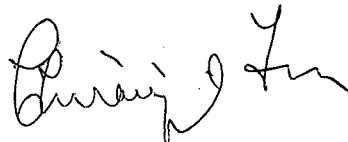
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I hereby affirm that the research for this dissertation titled "Growth and Changing Structure of the Prawn Export Industry in Kerala (1953-1983)" being submitted to the Jawaharlal Nehru University for the award of the Degree of Master of Philosophy was carried out entirely by me at the Centre for Development Studies, Trivandrum.

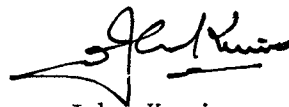
Trivandrum


Sebastian Mathew

Certified that this dissertation is the bonafide work of Sri Sebastian Mathew and has not been considered for the award of any other degree by any other University. This dissertation may be forwarded for evaluation.



Dr. Chiranjib Sen
Fellow



John Kurien
Associate Fellow

Supervisors



Director

Centre for Development Studies

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Contents

	Page No
Chapter I Introduction	1
Chapter II Prawn Exports in History - A Brief Overview	13
Chapter III Emergence of Frozen Prawn Export Industry in Kerala (1953-1970)	21
Chapter IV Growth and Changing Structure of the Frozen Prawn Exporting Industry in Kerala (1971-1983)	41
Chapter V Summary and Conclusions	82
Appendix I India's Marine Exports: Growth of Prawn Exports and the Structure of the International Market	90
Appendix II Procurement of Prawns by the Export Firms	111
Appendix III Profile of Export Firms of Frozen Prawns	115

List of Tables

No.	Title	Page No.
2. 1	Dry Prawn Exports from Travancore (1921-22 to 1935-36 -- Selected years)	17
3. 1	Production and Export of Frozen Penaeid Prawns	26
3. 2	Value of Frozen Prawn Exports from India and Value Realisation (1961 to 1970 - selected years)	27
3. 3	Structure of the Marine Products Export Industry of Kerala (1961-68 selected years)	28
3. 4	The Market Share of USA and Japan in Indian Frozen Prawn Exports (1953 to 1970 -- selected years)	29
3. 5	Growth in Freezing and Frozen Storage Capacity in Kerala State till 1970	30
3. 6	Growth in the Number of Firms Exporting Frozen Prawns from Kerala (1954-1970 - selected years)	32
3. 7	Structure of Export Firms in the Frozen Prawn Export Industry of Kerala (1954 to 1970 - selected years)	36
3. 8	Growth of Marine Products Exports from India (1963 to 1970 - selected years)	39
4. 1	Exports of Marine Products from Kerala (1970 to 1982 - Selected Years)	43
4. 2	The Market Share of USA and Japan in India Frozen Prawn Exports (1971 to 1982 selected years)	44
4. 3	Average Unit Value Realisation for Indian Frozen Prawn in the US and Japanese Markets (1971 to 1982 Selected years)	44
4. 4	Entry of Locally Based Firms into the Frozen Prawn Export Industry in Kerala (1971-1982)	47
4. 5	The Unit Value Realisation of Frozen Prawn Exports (1970 to 1982 - selected years) (Rs./Kg)	49

(ii)

No.	Title	Page No.
4. 6	Production of Penaeid Prawns in Kerala (1971 to 1982 Selected Years)	50
4. 7	Installed Capacity and Estimated Capacity Utilization in the Frozen Prawn Export Industry of Kerala (1968 to 1982 - Selected years)	52
4. 8	Capacity Utilization Based on Assumption of 60 Days Production (1968 to 1982 - selected years)	53
4. 9	Value of Replenishment Licence Issued to Marine Products Exporters and Its Share in Total Exports of Marine Products (1972-73 to 1983-84)	57
4.10	CCS as a Percentage of the FOB Value of Marine Products Exports (1974-75 to 1983-84)	59
4.11	Structure of Export Firms in the Frozen Prawn Export Industry of Kerala (1954-1982)	63
4.12	Relative Composition of Active and Deregistered Units as on December 1983	65
4.13	Years in Business of Deregistered units (as on December 1983)	67
4.14	Structure of the Frozen Prawn Export Industry in Kerala showing Class-wise Distribution of Export Earnings (1969-83)	68a
4.15	Distribution of the Largest Class of Exporters of Frozen Prawns (1975 to 1982-83)	69
4.16	Lorenz ratio* of Exports by Firms in Kerala	70
4.17	Share in Total Exports of the Top-most and Bottom-most Decile Groups (1975-1983)	71
4.18	Average Unit Value Realisation of Different Class of Exporters from Kerala (1975 to 1982-83)	73
4.19	Share of Large Business Houses Multinational Corporations and Kerala Based firms with Turnover Above Rs.10 million in the Frozen Prawn Exports of India (1976-77 to 1980-81)	76
4.20	Comparison of Average Unit Value Realization of Large Exporters (turnover above Rs.10 million) in Kerala with LBH's and MNC's (Rs.per Kg.)	80

No.	Title	Page No.
APPENDIX		
1	Prawns, Direct-on of Trade, 1980	91
2	World Catch of Shrimp and Prawns, by Major Producing Countries:(1973-1981)	92
3	Countrywise Percentage of Catch Exported in the year 1981	93
4	USA Shrimp Imports by Country of Origin	96
5	Japanese Imports of Shrimp by Country of Origin	99
6	Japan wholesale Shrimp Prices January 1983	105
7	Average Unit Value of Imports in Japan: Frozen Shrimp	107

Chapter I

INTRODUCTION

The waters off the coast of Kerala are quite well known for their resource abundance at least from the fourteenth century. This has been exploited by traditional communities of fishermen with a diverse technology base. Currently Kerala produces about 330,000 tonnes of fish from the sea and accounts for 19 per cent of the total all-India production.

Kerala is not only the highest producer of marine fish but also the biggest consumer. The per capita annual fish availability in Kerala was 14.5 kgs in 1984 compared to the corresponding all India level of 3.7 kgs in the same year.

The fisheries sector contributes to the well-being of the State's economy in three ways - as a provider of cheap animal protein; generator of mass employment; and earner of valuable foreign exchange.

Fish has been the cheapest source of animal protein available in Kerala. In protein terms the fish consumption of the Keralites accounted for about three quarter of their daily animal protein intake during 1976.

The fish economy employs about 3.2 per cent of the workforce of the State. In 1985 about 2.5 lakh people were directly employed in various

activities of fishing, processing and marketing in Kerala (See Kurien, J, 1985b). Out of this about 30,000 (12 per cent) were employed in activities related exclusively to harvesting and processing of prawns. Trawl fishing, peeling of prawn shells, removing the head and vein; grading, freezing and packing are some of these activities.

Fisheries sector is also an important source of foreign exchange. Between 1957-58 and 1983-84 the share of value of marine exports to Kerala's total export value increased from 2.6 per cent to 21.5 per cent. Considering marine products alone Kerala's position vis-a-vis the all India level has registered an impressive growth. In 1955-56 Kerala's value of marine products exports was Rs.5.1 million and accounted for 13 per cent of the all-India marine products exports. By 1984 the value reached Rs.1,402.46 million and accounted for 36 per cent of the total all India marine products exports.

EARLIER RESEARCH WORKS

The importance of understanding of the dynamics of development of the sector has led to various studies on Kerala's fish economy. They include work on prawn resources (Joseph, K.M.1971; Kurien, C.V. and Sebastian, V.O.1976; various studies done by the Central Marine Fisheries Research Institute, Cochin); economics of artisanal and mechanised units in fishing (Kurien, J. and Willman, R, 1982); on technological change and its impact on resources and fish workers (See Kalawar et al. 1985; Kurien, J. and Mathew, S. 1982); on internal marketing

of fish (Kurien, J, 1984); and also attempts at building a theoretical framework for understanding the fish economy (See Kurien, J, 1978a)

There have been ^afew studies dealing specifically with Kerala's marine products exports industry. One is V. John's work on the structure and backward linkages of marine products export industry in Kerala (John, V. 1976). Her study was done when rapid changes were just about beginning to take place amongst the export firms. Though she attempts an analysis of the structure of the marine products export industry in Kerala, the main focus of her thesis is on a detailed case study of two firms - one large and the other a small one - and their backward linkages. A serious flaw in her study is that she clubs all the different products together while discussing the structure of the industry without handling them separately. This is particularly important in the context of the fact that organizational set up of different products vary. One cannot, for example, club together the export industries of frozen prawn and dry prawn/fish because they involve different kinds of processing, different levels of capital ^{investment} ~~involvement~~ and turnover. She has discussed the concentration among export firms but has not been able to examine the factors responsible for this concentration. She was not able to look at the nature of involvement of these firms in production and processing or on the performance and involvement of large business houses vis-a-vis the local firms. She also does not attempt to either describe or understand the temporal and sectoral

pattern in investment in the industry.

Another study is J. Kurien's analysis of the impact of the entry of big business into fishing (Kurien, J, 1978). His study is not based on empirical data but is more an attempt at making an analysis of the political economy of the fish economy. In spite of the paucity of detailed studies, the role of indigenous capital in the export industry is derisively portrayed by him. He writes: "though the marine export trade of the country has progressed quantitatively by leaps and bounds, in terms of quality standards, product diversification, market strategies and the like it has miles to go. The root cause of the 'backwardness' has been the approach of those who presently control the trade; bearing no direct responsibility for the production as such, they trade where they can and what they can, the motive being quick current profits by circulation" (Kurien, J. 1978, pp.1563). All this is said without any analysis of the behaviour of firms in their particular context.

FOCUS OF THIS STUDY

The focus of this study is on the structure, growth and dynamics of change in the marine products export sector of Kerala with special reference to the product frozen prawns. Frozen prawns comprise about 70 per cent of quantity and 90 per cent of value of all marine products exports from Kerala. In this study we will be dealing with three aspects. They are:

- (a) the manner of the emergence of frozen prawns as an important and successful foreign exchange earner
- (b) the nature of competition among firms exporting prawns and
- (c) the specific nature and role of the firms within the industry and the character of state support extended to them.

Prawns as an Exchange Earner

In the light of a growing foreign exchange crisis in the country in the decade of the sixties attempts were made to promote many non-traditional items as important foreign exchange earners. In this effort there emerged only a few success stories. One which would rank very high among these is marine products exports especially if we consider its very low import content.^{1/} This success is particularly significant since it was achieved largely at the initiative of the local entrepreneurs with minimal state assistance in the "take off" stage.

In absolute terms as well as growth, sea food exports have come to occupy a prominent place in India's export earnings. In 1983-84 they earned Rs.3,730 million and ranked sixth in the list of exports from India.

Nature of competition among firms

In the industry, the nature of competition and its outcome clearly reveal that the few firms who control the export market are

1 The only material that is imported is packing materials.

able to do so because of a combination of economic and non-economic factors. What is important is not only involvement in production and/or processing but also one's social background; control over suppliers of pre-processed prawns; credibility in the international market; and collective influence in quasi-state bodies like the Marine Products Export Development Authority (MPEDA). The latter point is further revealed by the clout exercised by the locally established export firms to oust large business houses and multinational corporations from the industry thus consolidating their position and preempting strong competition.

Nature and role of firms and state support

Most of the established firms who entered the export industry were/are involved in some trading activity or the other before getting involved in the frozen prawn export sector. These activities included dry prawn trade; coir exports; cashew exports; import agency function etc. Because of a trading background and because of the involvement in basically a trading activity, these firms are considered by some as merchant capitalists.

Though the nature of state support in the nascent stages of the industry was minimal, with the emergence of the industry as a promising exchange earner, we see that the situation changes. On the one hand the state undertook investment in direct exports (formation of Kerala Fisheries Corporation in 1966), on the other it provided

concessional credit and liberal subsidies to the private sector. In addition, infrastructural facilities were strengthened by the state (fishing harbours, approach roads etc.). These required very heavy investment and had a longer gestation period. This investment primarily benefited the private sector.

OBJECTIVES OF THE STUDY

The specific objectives of our study are:

- (i) To trace the history of frozen prawn exports from Kerala from 1953-1983
- (ii) To examine the growth in the number of exporting firms, particularly the nature of their involvement in production and processing, and the changes therein in the period 1953-1983.
- (iii) To bring out the role played by government policies in attracting firms to enter the frozen prawns export business, and finally
- (iv) To focus on the factors responsible for big business houses entering and leaving the industry.

SOURCES OF DATA

Our main data source was the Marine Products Export Development Authority, (MPEDA) Cochin which is an autonomous body under the Ministry of Commerce.

Most of the data the MPEDA collects is included in aggregated form in their annual publication "The Statistics of Marine Products Exports".

Data on fish landings; exports of marine products from India on port, exporter, product and destination basis; status of the firms (whether proprietary, partnership, private Ltd. public Ltd. etc.); nature of involvement (whether the export firm has trawlers, processing plants, transport facilities, storage etc.) were all collected from the Statistics and Marketing Division of the MPEDA.

Data on annual firm-wise exports; registration and de-registration of exporting units are not published. This data are available in disaggregated form and accessible only with great difficulty.

All the data on firm-wise exports (quantity and value), of which we have made extensive use for studying the structure of the export industry, were culled from MPEDA's restricted access primary data files.

Data on registration/deregistration, extent of integration of the firms, (whether with production units, processing, marketing and storage facilities) were obtained from the Registration Book maintained in the Marketing Division of MPEDA.

In addition to these unpublished data we also had access to some of their studies conducted for their own internal use.

Information on packing credit policy vis-a-vis the sea-food export sector were obtained from the regional office of Reserve Bank of India, Trivandrum. Circulars of RBI for Commercial Banks regarding the marine products export sector were made accessible to us. This again is unpublished information.

In addition to these sources, we also met some of the exporters of frozen prawns to get a clearer idea regarding the extent of involvement; factors involved in maintaining/increasing market share; relationship with the buyers in the international market and suppliers of pre-processed prawns; reasons for leaving the industry etc. The pioneers in the industry were interviewed mainly with the idea of understanding the effort they put in to initiate this export industry in India. All these meetings with exporters representing different strata within the industry were conducted on an informal basis without recourse to a structured questionnaire. Our range of interviews varied from that with the pioneer to one who allegedly smuggled snake skin and cannabis in frozen prawn packets.

CHAPTER OUTLINE

The growth and structure of the seafood export industry is divided into three chapters. The first (Chapter 2) gives a brief overview of prawn exports in history until the advent of frozen prawn. The second (Chapter 3) covering the period 1953-70 examines the emergence and initial growth of the prawn export industry in Kerala. The final chapter (Chapter 4) covering the period 1970-83 analyses in detail the growth and changing structure of the industry.

Chapter 2 traces the genesis of the seafood export Industry of Kerala and reveals the existence of enterprising traders responsive

to the world market even before the advent of frozen prawn. Here we show how the traders shifted from one commodity to the other with changing market preferences and technologies.

Chapter 3 begins with the efforts made by the early pioneers in exporting frozen prawns. The discussion of the introduction of "modern" technology (specifically trawlers, freezing technology) is situated in the context of the role played by the Indo-Norwegian Project. The spread of this technology and growth (albeit as yet slow) of exports and entry of firms is linked to the initial entry of the US importers. Here we also bring out the nature of relationship between the US buyers and Indian exporters. An important issue here is the nature of involvement of Indian exporters in production and processing. These two features are stressed to bring out the change in the subsequent "boom" period.

Chapter 4 continues this analysis in greater depth, based on a substantive analysis of firm-wise data between 1975 and 1982-83 (this continues and elaborates more fully an earlier study done on firms between 1969 and 1974). (See V. John 1976).

Following a discussion of the reasons for the large scale entry of firms into the export business between 1975 and 1982-83 we look at the entry of large business houses (LBH's) into the export business. We stress the differing nature of involvement of LBH's vis-a-vis that of the local export firms, bringing out the relative performance of the

two and also the reasons for the ultimate withdrawal of the former and the increasingly assertive power of the latter.

That locally based export firms do not form a homogenous category is brought out in an analysis of changing structure. We see that the more established firms are also the ones which grow and are the ones with a greater involvement in the industry. A careful statistical analysis also brings out the high and growing concentration of export firms.

This discussion of heterogeneity of firms is an important aspect of our study in as much as it has a direct bearing on how we characterise these firms, i.e. the need to look at the nature of involvement of established and large firms separately from small or "fly by night" operators.

This chapter also discusses the role of government policies in encouraging entry into the business. We also speculate that government incentives like liberal credit facilities may have led to misuse of incentives.

Chapter 5 sets out the overall summary and conclusions. There are three appendices. Appendix 1 is a discussion on the factors behind the emergence of India as the most important exporter of penaeid prawns in the world. In this context we discuss the trends in production, consumption, sources of imports of the two major countries - the U.S. and Japan. It also brings out the rather ironical position of India in

the world market, with her receiving a price lower than other important producers/exporters despite the fact that she is the biggest producer/exporter of prawns in the world.

Appendix 2 discusses the procurement of prawns and its processing in Kerala. In this context different categories of suppliers of preprocessed prawns and their relationship with the export firms are also discussed.

Finally, there is Appendix 3 which attempts a brief profile of three export firms we had visited.

Chapter II

PRAWN EXPORTS IN HISTORY - A BRIEF OVERVIEW

Since fishermen cannot live by fish alone, no sooner more than three or four fish are caught, they have a "surplus" that needs to be bartered or exchanged. The compulsion for trade and exchange therefore emerges even at a very low level of development of the productive force.

This objective situation permits for the early entry of a category of persons who facilitate the process of barter or trade. Evidence from many countries indicates an early division of labour and role specialisation in fishing communities where the men go fishing and the women take responsibility for the barter and trade of the "surplus". This is followed fairly soon by specialised traders, most often from outside the fisher folk community, who are responsible for linking fish producing centre to the consumption demand of distant areas.

A major constraint to trade in fish is its high degree of perishability. In tropical countries, once out of water, fish spoils in less than four to five hours. The implication of this is the need for a stage of processing if the time between harvest and final consumption is to be

increased. The age old fish processing techniques of sun-drying, salt-drying and smoking have histories as old as fish harvesting itself.

New processing techniques which do not involve any transformation of fish (into dried form, oil or pulp) thus preserving its "fish form" are a result of technological progress as recent as the early part of this century. The two most widely used techniques are preservation with ice and preservation by freezing.

In India today while the use of ice is wide-spread for all varieties of fish, freezing is restricted largely to the high-priced export-oriented species of marine resources like prawns, lobsters cuttle fish etc. In Kerala, as we shall examine below there is a situation where initially exports develop in response to demand patterns in distinct markets. Later, the adoption of modern processing techniques and new market opportunities make the trade profitable enough to attract entrepreneurs from other sectors of the economy. We will concentrate our attention on the development of export trade of one species prawns.

DRY PRAWN EXPORTS

In the history of Kerala's marine products export industry the earliest recorded evidence is of the export of fish oil to UK in the 19th century. To meet an oil shortage arising from the over-killing of whales, the merchants of Malabar and Cochin responding effectively to market demand exported sardine oil. Oil sardines which until the

1820's were primarily caught for their value as organic fertilizer were now used to be processed into oil for export.^{1/} (Day, F, 1865).

In the early part of this century dry prawns fish replaced sardine oil as the major items of marine exports. Dry prawns/fish were shipped mainly to Sri Lanka, Burma and South-East Asia. These two instances of trade with widely divergent markets indicate that the merchants of marine products in Kerala were quick to exploit market situations whenever and wherever they arose.

Prawns were harvested in Kerala mainly during the South-West monsoon when they became accessible to fishing gear due to oceanographic factors.^{2/} Six different types of traditional gear are used for catching prawns^{3/} and all these gears have a mesh size most ideal for the sustenance of the stock as they are big enough to let the juvenile prawns escape.^{4/}

-
1. The total exports increased in a matter of 15 years from 66 cwt (equivalent to 3.4 tonnes) in 1845-46 to 34,167 cwt. (equivalent to 1760 tonnes) in 1859-60. The annual value of these exports in the decade 1854-55 to 1863-64 was around 7391 after remaining at 1271 in 1850-51 (Day, F.1865, pp,xxi-xxv).
 2. Due to oceanographic factors prawns which are demersal (bottom dwelling) species become semi-pelagic (mid-water) during the monsoon.
 3. Kollivala, Madivala, Thanguvala, Kambavala, Kanthavala and Veesuvala are the gears (See Kurien & Sebastian, 1976).
 4. Ranging from 0.64 cms to 6 cms at the cod end whereas the same for shrimp trawlers is 0.20 mm! (See *ibid.* and Kalawar et al. 1985).

Though prawns constituted about ten to fifteen percent of the total catch they did not enjoy a ready market in Kerala. Prawns were not a sea-food readily consumed by an otherwise fish eating population. People would resort to eating it at the most when other fishes were not available. Even fishermen had a strong aversion to eating prawns. This distaste for prawns arose out of a general belief that it contained certain toxic substances which caused stomach disorders. This aspect of the consumption pattern seems to be a peculiar feature of Kerala.^{5/}

The prawns catch in the monsoon season was quite substantial. Whatever was in excess of the capacity of the dry prawn trade was converted into manure for the coconut trees. Though the catch fluctuated, the demand of dry prawn trade was more or less constant. Dry prawns was traded with countries of South and South-East Asia. The following figures^(table 2.1) give some idea about the export of dry prawns from the southern part of Kerala State, which was known as Travancore, from 1921-22 to 1935-36.

The net live weight equivalent of the quantity traded would be at least five times, making the total quantity in live weight ranging between 8000 to 13,000 tonnes. Though we do not know what proportion

5. This is in comparison with other fish eating populations in South East Asia where there is a distinct preference for crustaceans like prawns.

Table 2.1: Dry Prawn Exports from Travancore
(1921-22 to 1935-36 -- Selected years)

Year	Quantity (tonnes)	Approximate Live weight (before drying) (tonnes)
1921-22	1,571	7,855
1928-29	2,515	12,575
1933-34	2,587	12,935
1935-36	2,114	10,570

Source: Statistics of Travancore (Trivandrum) various issues

of total production was exported, from these figures we get the idea that the total harvest of prawns then was above 10,000 tonnes which is quite high compared to the period just preceding the advent of more modern methods for harvesting them.

A salient feature of the dry prawn export trade was that trade was largely between the colonised countries under a common administration.

According to Anwar Sait of Abad Fisheries, Cochin, whose grandfather was a dry prawn trader from 1905, dry prawn export trade was a profitable venture with minimal risk and competition. A potential high profit margin is perhaps corroborated by the migration of muslim merchants from the Kutch region in Gujarat to Cochin in the early years of this century to participate in this trade (the great grand father of Anwar Sait was a horse trader in the Kutch region!).

After the Second World War, because of changing import policy of India's main buyers the dry prawns/fish export sector in the region that is now Kerala started suffering quite badly. According to an MPEDA study,

"after the war...Sri Lanka slashed her import of seafood heavily while Burma completely stopped imports. Other countries like Singapore and Malaysia also cut down their imports considerably. The impact of these cuts/stoppages posed a disastrous threat to India's trade in marine products as well as to the very existence of persons engaged in it: (Marine Products Export Development Authority 1982 unpublished) (also see Klausen, 1968)

By the 1950's the dry prawn export trade of Kerala started disappearing with seemingly nothing to take its place. A nascent international frozen prawn trade existed. Its impulses had not yet come to Kerala largely because of a lack of access to the emerging markets in the United States of America and the limited spread of the relevant technologies of freezing and frozen storage.

EMERGENCE OF FROZEN PRAWN EXPORTS

There was a growing international demand for prawns from the US in the 1950's. Before the Second World War very little sea-food was sold in inland USA. During the War due to a shortage of meat more people began to eat sea-food. The population shifts during the war also resulted in many inland people shifting to coastal areas and eating fish; later on returning home, with a taste for fish, resulted in more people eating sea-food. This included a taste for prawns too. This was

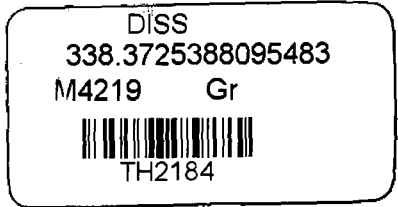
further complemented by the discovery of large shrimp grounds off Louisiana and the establishment of a more efficient transport system and cold storage chain, giving a boost to the marketing of marine products. Another reason seems to be the taste for prawns acquired by US army personnel serving in South East Asia, which has a tradition of preparing excellent dishes of prawns. These people on return home perhaps started eating more of crustacean foods (Kurien, J 1985^a).

By 1950 the import of shrimp into the US was 18,000 tonnes. This was because local production could not cater to the entire demand. Though Mexico was a prime supplier to the US market and had locational advantages she could not cater to the full demand.

In the search of new suppliers the private prawn importers in the US came into contact with the export potential of the Indian waters through the pioneering activities of an entrepreneur from Cochin in Kerala State. The initiatives were a rather timely intervention which came as saving grace to many traders involved in the then languishing dry prawn trade. The new market, the technological requirements needed to cater to it and also the profit opportunities perceived also brought into the marine export business a new breed of entrepreneurs. The responses to this new opportunity will be the focus of our next chapter.

Summary

This chapter deals briefly with the genesis of the seafood export industry of Kerala. From the mid nineteenth century till the emergence of frozen prawn export industry in the mid twentieth century we see that there is no dearth of enterprising traders who were quite responsive to the demands of the world market. We also see that this market responsiveness is not product specific -- it changes with the changing nature of demand. Thus if the traders initially dealt in fish^{oil}, they shift to dry prawn/fish trade with the waning of market potential for the former. The emergence of frozen prawn exports in the mid 1950's following the shrinking of the market for dry fish/prawns came as a saving grace to the merchants. Unlike their earlier operations the level of technology and the sophistication of the end markets provided the basis for new style of entrepreneurship.



Chapter III

EMERGENCE OF FROZEN PRAWN EXPORT
INDUSTRY IN KERALA (1953-1970)

INTRODUCTION

This chapter will deal with the emergence of a vibrant export trade in frozen prawns. It will examine broadly the economic stimuli and facilitating factors which give rise to this trade and describe the nature of the economic response of the actors involved and spell out some of the constraints placed on their involvement. It will cover the period from 1953 to 1970.

The developments in this period lay the solid foundation for the emergence of a significant frozen prawn export sector. The international market boomed first in USA and by the late 1960's in Japan. The Indian response was initially slow because of the constraints of technology, market linkage and credit. These were soon overcome. Technology and credit were initially supplied by the Americans soon to be taken over by Indian firms and banks by the early 70's. Market linkages were developed by enterprising exporters and eager foreign buyers especially after the publicity achieved by the results of the Indo-Norwegian Project which confirmed the presence of significant prawn resources off the Kerala

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coast. All these developments resulted in the rapid entry of firms into the business by the late 1960s.

PIONEERING EFFORTS

Export of frozen prawns for the first time in India was undertaken by Mr. Madhavan Nair of Cochin Company, Cochin in 1953.

In this context it will be worthwhile to discuss the pioneering efforts of this entrepreneur from Cochin who was the chief executive of a company in the erstwhile Travancore state called West Coast Fisheries Ltd. which was under the partial sponsorship of the Government. This company, which was set up in the late 1940's to undertake mid-water trawling and exports of fish products with the assistance of Taiyyo Fishing Company, Japan, had to close down soon after its inception mainly because of shortage of ice and problems of marketing and distribution (See Sandven, 1959). In 1951, two years after the closure of the company, Mr. Madhavan Nair came to know about the market potential for frozen prawns in the US through one of his American friends.^{1/} Accordingly, he visited the US to get a first hand idea about the market. He visited Japan around the same time to negotiate with Taiyyo Fishing Company about the possibility of securing freezing technology from them. Once he was assured of their assistance, he visited the US again, this

1. He was already involved in importing road rollers, tractors and pump sets from the west before joining West-Coast Fisheries Ltd.

time with a sample of penaeid prawns from Cochin. According to him, the American buyers were initially sceptical about quality, technical viability etc. but he successfully convinced them about quality,^{2/} and his ability to supply. In 1953 he exported his first consignment of 13 tonnes.

In the late 1950's he diversified into production with an American built trawler. In the second half of 1960s he expanded his activities: imported a 65 ft. trawler with a Canadian skipper; augmented his processing capacity by procuring a plate freezer on hire purchase from his import agent in the US - Atlanta Trading Corporation, New York; and started a boat building yard in Cochin.

Frozen prawn exporters like Mr. Nair remained few and scattered. The industry itself was of negligible consequence till it received recognition and encouragement in the late 1950's. The first step in this direction was something entirely fortuitous in the shape of the Indo-Norwegian Project.

BOOSTING EXPORTS: THE ROLE OF INDO-NORWEGIAN PROJECT

The Indo-Norwegian Project (INP), originally envisaged as a community development project for fishermen in Kerala by the Norwegian Government played a supportive role in the development of the prawn exports

2. He says he invited some chefs to test the quality of his sample, which highly satisfied them and they recommended the good quality, taste and colour of Indian prawns to the American buyers.

to the international market. This in turn also helped the indigenous exporters to establish themselves in the industry. The specific contributions of INP were of two kinds: one of a direct nature and the other indirect. The direct and more specific contributions of INP were (a) resource confirmation^{3/} and its area of concentration and (b) introduction and development of bottom trawling using small 30-36 ft. trawlers. The indirect contribution is that it brought Kerala's fishery and its resources into sharper focus of the world market, disseminated the information regarding the confirmed existence of vast prawn beds in Kerala's waters.

INP also played the role of facilitating entrepreneurship. This was a more region-specific contribution in the sense that this activity was confined to Quilon district, where the project site was located. In the early 1960's INP invited local fish merchants in Sakthikulangara - Neendakara area^{4/} to make use of its freezing plant at a nominal rent for undertaking frozen prawn exports. INP also provided financial support and marketing assistance to set up new plants and to find markets abroad

3. This was the result of a resource survey INP carried out in collaboration with Central Marine Fisheries Research Institute, Cochin.
4. Two of the three villages covered by the project in Quilon district. The other one is Puthenthura (in the same district)

(See Kurien J, 1985a) (Klausen, A.M. 1968)^{5/}

THE 'PINK GOLD' RUSH

With the boost received from the results of the INP, frozen prawn exports took off. The total production of prawns increased from 14,000 tonnes in 1956 to 22,000 tonnes in 1963 and touched 37,000 tonnes in 1970 (See Table 3.1). In the corresponding period the total exports of frozen prawns increased from 190 tonnes (1956) to 22,000 tonnes (1970). When the production more than doubled the quantum of exports increased almost two hundred times, thus increasing the proportion of catch exported to 91% in 1970 from a mere 2% in 1956

5. Here we want to add a word of caution that these contributions of INP were not the original objectives of the project. It was originally a community development project with the central objective of improving the standard of living of the fishing communities in the project area (for the list of objectives see Sandven, P. 1959; Kurien, J. 1985; Kurien, J 1985a). Once the project's attempts at motorising the traditional crafts/introduction of suitable beach landing crafts, distribution of frozen fish in the domestic market become a failure we see that the project drifts into the realms of activities away from the original objectives, which would ensure some "success" in a mere functional sense. This drift as Kurien J (1985a) observes, was in conjunction with the increasing response that local merchants showed towards the export market for prawns. As Kurien contends:

"(a) this 'success' was achieved at the cost of a shift in the direction of the INP which was largely inconsistent with its original objectives. (b) social and economic forces external to the project and almost totally outside the control of the Norwegians were responsible for steering the INP along this new direction...."(ibid).

With the result of this reorientation, the project became more of a technical assistance one rather than the originally envisaged one for community development.

Table 3.1: Production and Export of Frozen Penaeid Prawns
(1953 to 1970 - Selected Years)

Year	Total Production in Kerala* in tonnes	Total exports from India** (product weight) tonnes	Total exports*** (live weight) tonnes	Share of total exports in total**** production
1953	N.A	13	20	-
1956	14,000	190	290	2
1957	20,000	496	755	4
1960	13,000	1,211	1,843	14
1963	22,000	3,967	6,037	27
1966@	28,000	8,784	13,367	48
1968	25,000	14,397	21,908	88
1970	37,000	22,135	33,684	91

@ year of devaluation

* The total production figures are for Kerala alone, available only after 1955.

** The total export figures are for India. But more than 95% frozen prawn exports from India till 1970 were from Kerala (See Kurien J, 1985a) (Also see Marine Products Export Promotion Council 1970a)

*** 1 Kg. product weight is approximately equal to 1.52 Kg. live weight (See Rackowe, et al. 1983)

**** Given the above note ** we have assumed the ratio to be a fairly good estimate for the trend in Kerala.

Sources: 1. Kurien, J. 1978a

2. Kerala State Planning Board, 1969

3. The Marine Products Export Promotion Council 1970b & 1970a

4. The Marine Products Exports Development Authority 1973.

Table 3.2: Value of Frozen Prawn Exports from India
and Unit Value Realisation
(1961 to 1970 - selected years)

(Rupees per Kg.)

Year	Value (in Rs.million)	Unit value realisation	
		Rs.per Kg.	US dollar per Kg.(in exchange rates prevailing in respective years)
1961	7.0	4.78	1.00
1963	21.0	5.29	1.11
1965	41.0	5.84	1.23
1966*	89.0	10.13	1.35
1968	156.0	10.84	1.44
1970	263.0	11.88	1.58

*the year of devaluation of the Indian rupee

Note: 1. Until 1970 more than 95% of frozen prawn exports from India were from Kerala (See Kurien J. 1985a). Also see the Marine Products Export Promotion Council 1970a.

Source: Kerala State Planning Board 1969. The Marine Products Export Promotion Council 1970b. The Marine Products Export Development Authority 1974.

The value of exports are available only from 1961 onwards. From Table 3.1 and 3.2 we can see that when the price in Indian rupees more than doubled in the period 1961-1970, total quantity of exports increased phenomenally. At the same time, the ratio of total exports to production also increased rapidly from 14% in 1960 to 91% in 1970. This shows that almost whatever was produced in the late 1960's was exported.

Changes in Export Product-Mix

As a result of this growth in the export industry we see that the structure of the export market of Kerala changes from 1962-63 onwards. Till then the predominant item of exports from Kerala was dry prawns.

Table 3.3: Structure of the Marine Products Export Industry of Kerala

(1961-68 - selected years)

Products	Year			
	1961-62	1962-63	1965-66	1967-68
Frozen and Canned Prawns	*30(48)	*61(73)	*88(94)	*88(95)
Dried Prawns	*68(51)	*36(25)	*11(6)	*10(5)

* Percentage share in quantity

Figures in brackets represent share in value

Source: Kerala State Planning Board 1969

Though there was a redistribution of total production of prawns from the dry prawn export sector into the frozen sector in the 1960's, the predominant share of prawn production in this decade was still from fishermen using non-mechanised boats and catching prawns during the monsoon. Only from 1970 onwards did this situation change. In this year the share of prawns caught using the INP introduced mechanised trawlers increased from 35% in 1969 to 62% (See Kurien J, 1978^a).

Change in the Direction of Exports

Apart from a boom in the prawn exports and an enormous increase in its contribution to total marine exports, the 1960's also saw a change in the direction of exports. Until 1962 more than 90 per cent of the exports of prawns were to USA. Though Japan entered the market in 1962, until 1970 USA was the most important market for Indian prawns. The following table on market share shows the respective shares of these two countries.

Table 3.4: The Market Share of USA and Japan in Indian Frozen Prawn Exports

(1953 to 1970 -- selected years)

(Value and Quantity in percentage)

Year	Countries			
	United States		Japan	
	Q	V	Q	V
1953	100	100	-	-
1957	100	100	-	-
1962	92	91	neg.	neg.
1963	91	89	2	3
1965	81	79	10	12
1966	81	78	12	14
1968	73	64	23	32
1970	63	47	30	30

Source: The Marine Products Export Development Authority
1974 (figures rounded off)

Though the market share of USA remained the highest in this period it was steadily declining particularly in value terms. It more than halved between 1953 and 1970. On the other hand the share of Japan had been impressively growing after it made its entry in 1962. The most important reason for this, as is evident from the table, is the increasingly higher prices which Japan pays vis-a-vis USA.

NEW INVESTMENT IN PROCESSING

Increasing exports to quality conscious markets in the developed countries necessitated investment to facilitate processing of the prawns caught in the desired form. Substantial investments were made both in freezing plants and frozen storage in the period under our consideration (See Table 3.5).

Table 3.5: Growth in Freezing and Frozen Storage Capacity
in Kerala State till 1970

(Cumulative and in tonnes)			
Growth of Freezing Capacity	Private Sector	Public Sector	Total
Upto 1962	82	34	116
1963-1966	210	34	244
1967-1970	348	48	396
Growth of frozen storage:			
Upto 1962	1,285	825	2,110
1963-1966	2,627	825	3,452
1967-1970	4,844	960	5,804

Sources: 1. Government of Kerala 1983
2. MPEDA 1983
3. MPEDA 1984a (unpublished)

Investments were undertaken both by the private sector and the public sector. The share of public sector was only 17 per cent of the total freezing capacity and 20 per cent of the frozen storage. While the processing facilities installed in the private sector were catering entirely to the international market for prawns those in the public sector were intended to promote domestic marketing of fish. However, from 1968-69 the State also made an effort at entering the export market by setting up the Kerala Fisheries Corporation with all the accessories necessary for production, processing and exports.^{6/}

GROWTH OF EXPORT FIRMS

The share of exports to total prawn production went up from an insignificant 2 per cent in 1956 to 91 per cent in 1970 implying a good response from Kerala to the growing international demand for frozen prawns (See Table 3.1). For nearly a decade from the first exports of frozen prawns in 1953 the industry was in the hands of eight pioneering firms. Thereafter we notice a fair substantial growth with the number of export firms nearly doubling every three years. The following table (Table 3.6) shows the growth in the number of export firms from Kerala in this period.

Among the four exporters who entered before 1957, two were already involved in dry prawn exports. Of the remainder, one was a coir exporter from Alleppey and the other an import agent of road rollers, tractors etc.,

6. The Kerala Fisheries Corporation could not successfully compete with the indigenous established exporters. They finally leased out their freezing and frozen storage plants to the private sector!

Table 3.6: Growth in the Number of Firms Exporting Frozen Prawns from Kerala (1954-1970 - selected years)

Year	Number of Exporters (cumulative)
1954*	1
1957	4
1960	6
1962	8
1963	13
1966	27
1970	53

* Though this firm began exporting from 1953 it was registered only in 1954

Source: Compiled from the Register of Marine Products Exporters maintained at the Marketing Division, Marine Products Export Development Authority, Cochin.

Thus all of them were some way or other people who were involved in international trade. Two of these firms were assisted by either Japanese or Americans to establish their processing facilities.

By 1962 eight firms had joined the fray. Four were dry prawn exporters. For them it was relatively easier to settle down and have control over frozen prawn exports since they had their supply lines already in existence. Moreover, their workers who were involved in the processing of dry prawns had the necessary skill for peeling and deveining of prawns. This was particularly significant in the early stages of the export market considering that the firms were fully

dependent on the traditional sector of the fish economy for their procurement of raw material. For these firms the emergence to frozen prawn exports was a blessing in disguise considering the crisis which the dry prawn trade was facing during that period (See p.18)

From 1963 the number of exporting firms increases rapidly. Many factors were responsible for this growth. The viability of the industry was well established by then. The profit potential, the nature of the market, and the growing demand roped in many. The devaluation of the Indian rupee in 1966 gave a big push to exports. There was also greater extent of Government of India's encouragement. Financial and technical support from the buyers in the US was inherent in the system of trade carried out with the US importers: the consignment system of sale. This helped to "establish" the local firms in the trade and develop their contacts and expand their business.

Consignment System of Sale

The consignment system of sale was more or less a patron-client trade relationship practiced till 1971, between the Indian exporters and the American buyers. In this contractual tie-up, each exporter shipped his product to one particular importer. Exporters were given open orders by the importers without specifying quantity and size and therefore he did not have to worry about the market. At the time of the shipment the exporters were advanced 60 to 80 per cent of the estimated value of the product. This more or less covered the cost and

freight value of the commodity and enabled the exporters to utilize the funds for purchase of raw material. The remainder of the price was remitted to the exporter after the product was sold in the US. Direct costs, together with the agents commission would be deducted from the proceeds.

As an MPEDA study (MPEDA 1982 unpublished) remarks:

"Under the long term contractual arrangement the importers were assured of getting shipments on a regular basis from the same source and hence they kept their exporters furnished with the latest and projected market reports and trends and also passed on information on the technical and technological developments in the industry and made suggestions for packaging, improvement of quality, methods and style of packing etc. in order that the product met with the specific US market requirements at all times" (ibid).

As this study further observes:

"In the initial stages of the development of the sea-food industry, the consignment system certainly helped a number of exporters to establish their units here and their products abroad. The buyer often opened a Red Clause Letter of Credit enabling exporters to draw money in advance from Banks to purchase raw material, process and export. Since the buyer had a heavy stake in the trade, he supported the exporters to the maximum extent possible thereby ensuring regular flow of merchandise to him. Since the exporters did not have undue worry about securing finance for their operations and finding market for their products, they were able to establish their business on a sound footing. In some cases the importers even helped the exporters by supplying machinery like plate freezers" (ibid.)

We do not have any data on the specific number of firms who were assisted by their import agents in the USA. But what we infer from the discussions we had with some of the export firms is that in the nascent stage of the export industry their support really helped many exporters to establish themselves in the business. This was particularly significant in the 1960's considering that freezing and packing technology was not yet widely disseminated -- freezing frozen storage plants and packing materials had to be imported -- and there was only marginal assistance forthcoming from the State at this stage.

Though this system enabled exporters to establish themselves, with the development of trade with Japan which paid higher prices and with the availability of liberal credit market at home (post 1970's development), it was replaced at the request of the exporters by outright sales in 1971 (See Chapter IV).

NATURE OF FIRMS

Though a large number of firms entered the export trade they were not of the same kind. Firms could be fully "integrated", "partially integrated", or "non-integrated" units. The following Table 3.7 gives the extent of integration of frozen prawn export firms registered between 1954-1970.^{7/}

7. This includes (i) frozen prawn exporters only and also (ii) frozen prawn/canned prawn exporters. We have excluded firms who export only canned prawns/frozen froglegs etc. In other words our list of firms include only frozen prawn exporters alone or frozen and canned prawn exporters.

Table 3.7: Structure of Export Firms in the Frozen Prawn
Export Industry of Kerala

(1954 to 1970 - selected years)

Period of registration	Fully inte-granted units	Partially integrated Units	Non-inte-grated units	Total
1954-62	6(75)	2(25)	-	8(100)
1963-65	4(36)	5(45)	2(18)	11(100)
1966-68	4(19)	11(52)	6(29)	21(100)
1969-70	2(15)	4(31)	7(54)	13(100)
Total	16(30)	22(42)	15(28)	53(100)

Note: Fully Integrated units:- With fishing boats, freezing plant and/or frozen storage, insulated vans

Partially Integrated Units:- No fishing boats -- only freezing plant and/or frozen storage and insulated vans.

Non-integrated Units:- No investment in freezing plant frozen storage, or insulated vans -- operating in the lease market.

Figures in brackets stand for percentages of total

Source : Compiled from the Register of Marine Products Exporters maintained at the Marketing Division, MPEDA, Cochin.

We see from the table that three-quarter of the firms registered between 1954-62 entered the export industry making all the investments in fishing and processing. This is due to the fact that with the introduction of commercial trawling in the 1960's most of the early entrants diversified into fishing mainly to break the seasonality of the traditional prawn fishery which is confined to the monsoon months. The 1960's were a time without any autonomous expansion in the trawler fleet by

fishermen themselves and hence it was essential that these firms invest in boats to augment production and exports. This situation however changed in a matter of less than a decade. As we move down from 1954-62 to 1969-70, the proportion of firms which were "fully integrated" decreased. If 75 per cent of the firms registered in 1954-62 were "fully integrated", it was only 15 per cent in 1969-70.

In the corresponding period, firms which were "non-integrated" increased from zero to 54 per cent indicating unutilised capacity in the industry making it possible to lease in processing capacity. The availability of unutilised capacity was largely in the installed capacities in the public sector (See Page 30-31) which arose from the failure of these units to promote internal marketing of frozen fish.

The "partially integrated" units, after registering an increase till 1966-68 decline to 31 per cent in 1969-70. However, in the overall structure of the industry, we see that 'partially integrated' units form the highest proportion of firms (42%) following by 'fully integrated' ones (30%) and finally the 'non-integrated' (28%).

Primacy of Private Initiative

What is most significant about the prawn export boom is that the development of the export market is largely at the initiative of the exporting firms themselves without perceptible state support. As a study done by the Indian Institute of Foreign Trade contends

"the finances for the shrimp industry have however all come from the commercial banks and the private operators. There has been very little investment by Government or foreign parties or monetary assistance from the Industrial Finance Institutions sponsored by the Government. Even the commercial banks have been reluctant till recently to advance funds for the acquisition of fishing vessels and other capital equipment or working capital" (IIFT 1970 pp.499-500)

In the period 1961-69 though Rs.110 million were spent on fisheries development in the state (See Kurien J. 1985^a) only Rs.20 million (18%) was spent on schemes related to the development of exports like setting up of processing plants. About 75 per cent of the amount was spent on production oriented schemes which was primarily for financing mechanised boats largely intended for traditional fishermen to do gill-netting for domestically consumed species of fish. By 1970 however, the number of mechanised bottom trawlers(used exclusively for prawn fishing) issued by government financed schemes increased to 150 from a mere 4 in 1967-68.

The export promotion policy of the Government of India in the 1960s also did not contribute much to the sea food sector. Though various schemes like duty drawback facilities, import entitlement schemes which later became import replenishment schemes etc. were introduced, they were essentially directed towards the promotion of other 'non-traditional' exports like engineering goods, products of chemical, and iron and steel industries. Marine products despite their tremendous potential in terms of growing world demand and widening domestic resource base was largely neglected (See Nayyar, D. 1976).

The credit policy of commercial banks till the late 1960's were also indifferent to marine products.

The policy which had the most significant influence in the 1960's was devaluation of the Indian rupee in 1966. As Nayyar points out, it provided "a very positive export incentive" which is reflected in a marked growth of marine products exports in the post 1966 period (See Table 3.8).

Table 3.8: Growth of Marine Products Exports from India
(1963 to 1970 - selected years)

Year	Quantity (000 tonnes)	Value in Rs.million	Value in \$ million (in exchange rate prevailing in res- pective years)
1963	18	58.65	12.31
1965	15	69.24	14.54
1966*	19	135.25	19.32
1968	25	230.85	30.78
1969	31	330.73	44.10
1970	37	355.36	47.38

* The year of devaluation of the Indian Rupee

Source: Marine Products Exports Development Authority 1974

SUMMARY

The decades of the 1950's and 1960's continued the earlier marine export tradition of Kerala. Between 1956 and 1970 annual prawn production increased from 14,000 tonnes to 37,000 tonnes, percentage of catch exported

increased from 2 per cent to 91 per cent, value of export increased from less than Rs.10 million to over Rs.260 million. Kerala's exporters responded to the international demand for frozen prawn on their own initiative with minimal state support. They were largely supported by the Americans who were the main buyers during this period. In terms of finance, technology, maintenance of quality etc. the role played by the American import agents were quite crucial. This facilitated the establishment of the industry. In addition the confirmation of extensive prawns resources; and the introduction of small-scale commercial trawling, gave a fillip to the industry.

Towards the late 1960's the business changed its character. Trawling became a more important source of prawns; Japan turned into a market as important as the USA; devaluation of the rupee in 1966 and the establishment of the export industry's viability after over a decade's experience served to boost the number of exporters. By 1970 there were 53 firms in business. Many of them entered the business after the mid 1960's. Most of the firms entering in the 1950's and early 1960's were "fully integrated" the proportion of "partially integrated" and "non integrated" firms increased towards the latter half of the decade. This was largely due to the emergence of unutilised capacity in the industry, and the steady autonomous growth of the harvesting (production) activity with increasing state support.

Chapter IV

GROWTH AND CHANGING STRUCTURE OF THE FROZEN PRAWN EXPORTING INDUSTRY IN KERALA (1971 - 1983)

INTRODUCTION

The late sixties had evidently seen the beginnings of what can now be termed as the 'prawn rush'. The period thereafter -- from 1971 to 1983 -- is undoubtedly the most significant period in the history of the sea food export industry of India and particularly of Kerala. From 1971 onwards the frozen prawn export market of India shifted completely in favour of Japan mainly because of the higher prices being offered by them. From 30 per cent of exports in 1970 the Japanese share reached 71 per cent in 1982. The period saw the end of the consignment system of sale and the emergence of an outright sales system. This period also witnessed the highest and the lowest production of penaeid prawns in Kerala after the trawling boats were popularised. The highest production was in the period 1973-75 -- averaging about 74,000 tonnes -- and the lowest in 1981-82 -- averaging about 24,000 tonnes. Unlike the 1960's the largest proportion of this was caught by shrimp trawlers. Increasing support was provided by the state in the 1970's in the form of loans and subsidies for setting up freezing plants and for the purchase of trawlers. More importantly, the credit policy of commercial banks was liberalised vis-a-vis the sea-food export sector. From 1971-72, cheap credit was available

in the form of pre-shipment credit. The export-import policy was also relatively more promotive in nature during this period.

The enhanced prawn production, the phenomenal growth of value of the output in an atmosphere of government encouragement promoted the entry of a large number of firms into the industry with varying stakes and capabilities. Some were local firms with enough confidence to invest in freezing capacity; some were large business houses and multinational corporations with specific motives; while most were those which did not invest in many major equipment. The latter survived for a time due to easy working capital credit availability and the large unused capacity in the industry. Intense competition between firms in the face of declining prawn production resulted in increasing economic concentration resulting in the exit of a large number of firms from the industry by the early 1980's. The strongest firms survived: they had control over fresh prawn procurement and credibility with the foreign buyers. We will examine these aspects in detail in this Chapter in our attempt to unravel the nature of growth and the character of the changing structure of the frozen prawn exporting industry in Kerala.

TRENDS IN MARINE EXPORTS

The total quantity of all marine products exported from Kerala increased from 24,000 tonnes in 1970 to 33,000 tonnes in 1982. In the corresponding period the value of exports increased from Rs.275 million to Rs.1,380 million. Frozen prawn exports alone accounted for 80 per cent of quantity and about 85 per cent of value. The following table gives the quantity and value of total exports and the share of frozen prawns.

Table 4 1: Exports of Marine Products from Kerala
(1970 to 1982 - Selected Years)

Year	Quantity (in tonnes)	Value (In Rs. Million)	Share of frozen Prawns	
			Quantity in tonnes	Value (In Rs. million)
1970	24,000	275.0	20,000(83)	230.0(84)
1973	31,000	540.0	26,000(84)	454.0(83)
1976	31,000	979.0	28,000(90)	810.0(83)
1979	32,000	1097.0	27,000(84)	973.0(88)
1982	33,000	1380.0	27,000(85)	1225.0(89)

Note: Figures in parenthesis show percentages

Source: MPEDA 1974, 1977a, 1980, 1984b

We see that during the period 1970-82, while the quantity of prawn exports increased only by 30 per cent the value quintupled.

If the total exports were largely to USA in the 1960's we see that this trend changes in the 1970's. From 1971 onwards Japan emerges as the biggest importer of Indian prawns.

As is ^{evident} ~~clear~~ from the Table both in terms of quantity and value the share of Japan increased steadily vis-a-vis the US market. The main reasons for this shift are: (a) higher prices offered by Japanese buyers (b) lower freight charges to Japan.

Table 4.2: The Market Share of USA and Japan in Indian Frozen Prawn Exports (1971 to 1982 selected years)

Year	Markets Shares*			
	USA		Japan	
	Value	Quantity	Value	Quantity
1971	28	41	66	49
1975	21	29	73	65
1979	16	25	77	68
1982	13	21	78	69

Source: MPEDA 1979, 1984

(*For period 1953 to 1970 See Table 3.4)

As we can see from the Table 4.3(below) there is more than a 40 per cent price difference between the US and the Japanese markets. In addition to this, freight charges to Japan are cheaper. There is more than 30 per cent difference between the freight charges to the US and the Japanese ports (See MPEDA 1979, 1984b). Further, it was easier to enter the Japanese

Table 4.3: Average Unit Value Realisation for Indian Frozen Prawn in the US and Japanese Markets (1971 to 1982 Selected years)

Year	Average unit value Realisation (Rs./Kg.)		Ratio of US price to the Japanese price
	USA	Japan	
1971	9.12	17.73	51
1975	14.71	22.63	65
1979	27.28	47.21	57
1982	35.51	62.00	38

Source: MPEDA 1980 and 1984b

market because their market for imported marine products was growing rapidly as a result of an increase in per capita consumption (See the Appendix I on the International Market for Prawns). These factors encouraged the exporters to shift their market preference.

THE END OF THE CONSIGNMENT SALE SYSTEM

Though this system enabled exporters to establish themselves in the nascent stages of the industry it was however replaced by outright sales system from 1971 onwards. According to the MPEDA study it was replaced by the Union Government at the behest of the local exporters. The main reasons for this according to the study, were some of the anomalies in this system which adversely affected the Indian exporters. Thus for example, some importers started sending Debit Notes to the exporters claiming huge losses allegedly out of a falling market that frozen prawns were facing in the U.S. The local exporter had no way to verify the veracity of this claim since he did not have any machinery to get timely information about the U.S. market. He was always at the mercy of the importer for all this information (ibid.)

However, two factors are quite significant for the discontinuation of consignment system of sale. The first is the emergence of Japan as the most important importer of Indian prawns and the second, availability of easy credit from the commercial banks; both from 1971 onwards (See below). A continuation of participation in the consignment system of sale would have implied selling prawns only in the U.S. market which

paid a much lower price vis-a-vis the Japanese market. Therefore, the exporters would have wanted to sell more of their commodity to the Japanese buyers who preferred outright sales arrangement which implied a break of tie-up with the American importers.

Secondly, with the liberalisation of credit from 1971 onwards exporters could easily raise the working capital for procurement and in addition they could also take loans to secure processing/packing facilities from commercial banks and governmental agencies. This considerably reduced their dependence on the American buyers for financial support.

GROWTH OF EXPORT FIRMS

The tremendous growth in the value of exports in 1970's was simultaneous with a spurt in the number of firms operating in the business. Compared to the late 1960's we observe a further intensification of entry into the frozen prawn export industry.

Two types of firms were involved in the export business of frozen prawns in the 70's. The most important was the locally based firms operating from Kerala who were primarily involved in the export of marine products -- basically frozen prawns. The other type comprise of large business houses and multinational corporation like Union Carbide, ITC, Raunag, Voltas, Brooke Bond, DCM, Britannia etc. who entered the industry mainly for complying with the changing import policy of the Union Government in the 1970's.

Among the latter category of thirteen firms only three were based in Cochin; Brooke Bond India Ltd., Rallis India Limited and Raunag International. Of the rest, some firms like ITC, Union Carbide etc. utilized the services of the local firms to procure prawns and got them processed and packed under their own brand names.

Kerala Based Firms

The total number of firms primarily involved in frozen prawn exports more than quadrupled from 53 to 224 -- in the period 1970 to 1982-83 (See Table 4.4) (This number includes the three large business

Table 4.4: Entry of Locally Based Firms into the Frozen Prawn Export Industry in Kerala (1971-1982)

Year	Number of firms entering	Cumulative Number	Percentage increase over the previous year
Upto 1970	53	53	-
1971	14	67	26
1972	16	83	24
1973	34	117	41
1974	18	135	15
1975	13	148	10
1976	32	180	22
1977	14	194	8
1978	6	200	3
1979	5	205	3
1980	14	219	7
1981	2	221	1
1982	3	224	1

Source: Compiled from Register of Marine Products Exporters kept at Marketing Division MPEDA, Cochin.

houses (LBP) and multinational corporations (MNC) operating from Kerala)

The period which attracted the largest number of firms is 1971-1976. The compound rate of growth of the number of export firms entering the industry in this period is about 22 per cent. From 1977 onwards this trend changes: the compound rate of growth in the period 1977-1982 is only 4 per cent.

FACTORS PROMOTING ENTRY AND GROWTH OF FIRMS

Several factors were responsible for the entry and growth of frozen prawn export industry in the early 1970's. Among these factors, the crucial seem to be the economic ones. We have identified four factors which were responsible for this phenomenon in the early 1970's. They are:

Firstly the enhancement of the price of frozen prawn in the international market as a result of the emergence of Japan as the most important buyer.

Secondly, availability of unutilised processing capacity which was the result of expansion of the facilities of the established units in anticipation of increasing prawn production.

Thirdly, the liberalisation of export credit in the form of pre and post shipment credit as a result of the directives from the Central Bank and

Fourthly, the import-export policy of Government of India which included many incentives in the form of import replenishment license, cash compensatory support, duty drawback facilities etc. for non-traditional products (which also included marine products).

We will go in detail into these factors below

(a) Enhancement of Prawn Prices^{1/}

The greatest increase in the international price of prawns was in the period 1971-76. The rate of increase of average unit value was 22.2 per cent in 1971-76 (average for all the 6 years). The corresponding figures for 1962-70 and 1977-82 were only 12.6 per cent and 9 per cent.

Table 4.5: The Unit Value Realisation of Frozen Prawn
Exports (1970 to 1982 - selected years) (Rs./Kg)

Year	Unit Value Realisation	% increase over the previous stated year
1970	11.0	8
1971	13.5	19
1973	18.3	26
1975	20.1	9
1976	33.5	60
1980	38.4	14
1982	55.1	30

Source: The MPEDA 1974, 1980, 1984b

Perhaps in response to the increase in world demand and the consequent increase in price the total production of prawns suddenly shot up,

1. We can assume that enhanced prices would have led to good profits. Profitability figures are very hard to come by. Yet one cannot believe the comment made by leading exporters that their's is a low profit sector. The only two years for which some data is available from the MPEDA are 1979 and 1981 (Gopalakrishnan and Co. 1981 Report on Cost Study of Marine Products 1980-81, MPEDA unpublished and MPEDA, 1982 - A Status Report of the Marine Products Processing Industry in Kerala unpublished). These show an implausible loss of nearly 2%. In both the studies the weak point is raw material costs amounting to over 75% of the cost of production, as one has to accept whatever figures the exporter gives in the absence of any neutral monitoring of raw material prices at different stages. This gives the exporter ample scope to undervalue his accounted profits.

reached its highest point and afterwards slowly moved down because of overfishing. Concomitantly, the investment in the fisheries sector expanded through the entry of a large number of firms. There were not only export firms at various levels of integration but also several hundred investors who merely obtained trawlers for prawn harvesting but with no direct export links.^{2/} The total number of trawlers shot up from

Table 4.6: Production of Penaeid Prawns in Kerala
(1971 to 1982 Selected Years)

Year	Quantity (tonnes)
1971	31,000
1973	85,000
1975	77,000
1976	34,000
1978	45,000
1980	53,000
1982	27,000
1971-1976	53,700(average)
1977-1982	36,200(average)

Source: MPEDA, 1984b

-
2. Right from the late 1960's commercial banks had come forward to assist the productive forces. Also, in the 1970s the Government of Kerala was increasingly involved in the financing of mechanised trawlers. Thus for example, out of Rs.209 million spent by the Government of Kerala in the 1970s Rs.57 million was utilised for the issue of mechanised boats, Rs.14.4 million for supporting infrastructure development and Rs.4 million for export oriented investment in marketing and processing (See Kurien, J. 1985).

about 1000 in the late 1960's to 2600 by 1977 (See Kalawar et al 1985, pp.223-224). The above table shows the level of production of prawns in the 1970's. The attraction of good prices was matched by easy possibility of entry. Firstly, there was unutilised capacity which made it possible to operate without investing in any major equipment.

(b) Unutilised Capacity in the Processing Industry

The form in which prawns are desired in the international market makes freezing an essential requirement. Therefore, investment in freezing/frozen storage capacity has to be normally undertaken. A situation where there is unutilised capacity in the industry, makes entry of new firms into the industry relatively easier, especially when there are firms willing to lease out facilities during the greater part of the year.

Our estimates of capacity utilization based on 250 and 180 days^{3/} show that it is on the average well below 50 per cent for the period

3. We have taken two separate periods because we wanted to base our estimate of capacity utilization on two factors. First is the period which is normally taken for estimation of capacity utilization in the case of the firm i.e. 250 days. All studies on capacity utilization in the processing industry in India have taken this period as the base. (See Indian Institute of Foreign Trade, 1970; Marine Products Export Development Authority 1982; Iyer K. et.al. 1981). Second is 180 days, the period in which almost the entire catch of prawns take place in Kerala (See Kalawar et al, 1985, p.149; also See Fig.1). The latter is more realistic because it takes into account the period of actual production.

Table 4.7: Installed Capacity and Estimated Capacity
Utilization in the Frozen Prawn Export Industry
Industry of Kerala

(1968 to 1982 - Selected years)

Year	Penaeid Prawn Production (in tonnes)	Freezing capacity (tonnes per day)	Capacity utilisation based on	
			250 days (in percentage)	180 days (in percentage)
			(Cumulative)	
1968	25,000	320	31	43
1970	37,000	400	37	51
1972	31,000	470	26	37
1976	34,000	570	24	33
1980	53,000	580	37	51
1982	27,000	590	18	25

Note: 10% of the total capacity is in the public sector

Source: Compiled from: Government of Kerala 1983; MPEDA, 1984a, Production figures from MPEDA 1984b.

1968-1982. This is very likely the reason for the large entry of new firms into the industry without investing in freezing and storage equipment. However this begs the question why there was rapid capacity expansion in the first place.

Two reasons suggest themselves. The first is an obvious entrepreneurial motivation to build capacity in anticipation of rising production. From Table 4.7 we can see that almost the entire capacity

is built into the industry by 1976 with very marginal increase thereafter. Prawn production after 1976 never reached the peak of 1973-1975 (See Table 4.6) thus removing the reason for augmenting capacity in anticipation of higher production.

A second reason for capacity expansion could be the investors logic based on a special aspect of marine prawn production -- viz. seasonality. A substantial proportion of the annual marine prawn production is in the months of July and August. Though we do not have data on the month wise catch for the whole of Kerala, data available for Sakthikulangara, which is the most important prawn landing centre in Kerala, indicate that as much as 70 per cent of the total catch is in July-August (Figure 1). Assuming this proportion to be true of Kerala, we see that capacity utilization calculated on this 60 day basis indicates very efficient use of the facilities (Table 4.8).

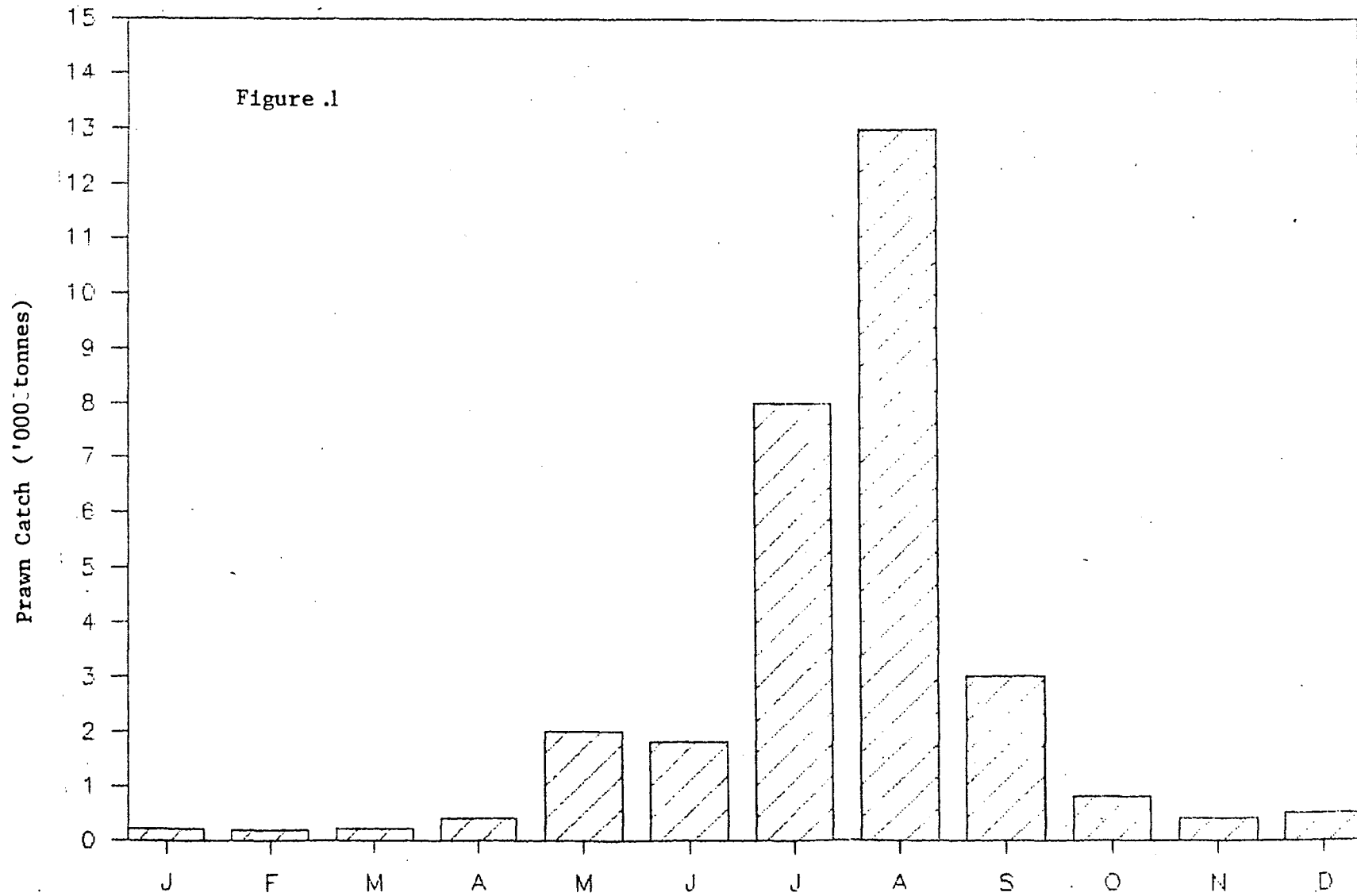
Table 4.8: Capacity Utilization Based on Assumption of 60 Days
Production (1968 to 1982 -- selected years)

Year	1968	1970	1972	1976	1980	1982
Capacity utilization based on 60 days (percentages)	87	103	74	67	102	51

Source: Kalawar et al 1985 (Compiled)

Note : Prawn production and freezing capacity figures same as that in Table 4.7.

Average Monthly Variation in the Prawn Catch Landed by Trawlers
at Sakthikulangara, 1973-79



Source: Kalawar, A.G. et al 1985

This suggests a plausible explanation for the logic of what appears to be over-investment in freezing capacity. By this "over-investment" the investor would be able to capitalise on the peak prawn harvest period of two months when freezing facilities would not be available easily on lease. The investor makes the highest profit in this 60 day period when the shore price of prawns is relatively low due to the peak landings with the international price remaining steady. The maximisation of profit in this peak period is an important consideration since it is likely to compensate for the lower revenues arising out of under utilisation of capacity during the rest of the year.

From the above discussion it is significant to note that while there is sufficient under utilized capacity to attract myopic operators to enter the industry, the ability of such firms to fully exploit this situation is limited by the fact that in the peak harvest time when revenue/profits are high the utilisation of the facilities are also high leaving little for the lease market at that time. The unutilised capacity observed in the industry, especially in the private sector,^{4/} is thus an apparent one if we take into consideration the seasonality of the availability of prawns. This apparent underutilised capacity is one of the important reasons for both the entry and the exit of a large number of firms who were operating (or intending to operate only in the lease market (See the section on Analysis of the firms below)

4. Almost the entire capacity in the public sector - about 10% of the total capacity - was at the disposal of the non-integrated firms which perhaps helped a few of the firms to secure processing facilities during the peak production period also.

(c) Changes in the Credit Policy of Commercial Banks

Until 1972 there was no well defined policy for financing sea-food export. The position of sea-food export vis-a-vis other Indian exports improved very significantly in a short span of less than a decade. From being no where in the picture of exports in the late 1960's it became the 13th largest export commodity by 1970-71 (See Nayyar, D. 1976). This quick attainment of fame started getting the industry a better deal from the commercial banks.^{5/}

The Reserve Bank of India mentioned in a circular:

"....in view of the importance which sea-food exports occupy in the total export of the country and the great potential which such exports hold for development in future, the Banks should lend adequate credit support to the sea-food exporters"(DBOD No.BM.BC.35/L97:pp.73 April 1973).

Policy decisions in this regard were already taken by the RBI in 1972. Export firms were entitled for packing credit advance for a period of 90 days at 12 per cent interest (See DBOD No.BM.BC.82/C.297 p.72 14-9-1972).

To ensure the co-operation of commercial banks, they were provided incentives like re-financing facilities by Export Credit and Guarantee Corporation at low interest rates.^{6/}

According to Reserve Bank of officials, the terms and conditions applicable to the sea food export sector from 1971-72 are the most liberal among all the export commodities. Terms and conditions in the case of this

5. From the late 1960's commercial banks had started advancing term loans for buying boats and for setting up processing capacity. But there was no clear-cut policy for advancing packing credit. Until 1972 commercial banks extended packing credit only to firms they knew very well.
6. Upto an amount equal to 10% of the annual average export credit in the previous calendar year at 4½% per annum and an additional amount upto 10% of the said average at Bank Rate (Base Year 1972) (See RBI Circular DBOD No.BMBC 82/C.297 p.72 14 9-1972)

commodity are very loosely defined and they are left largely to the discretion of the banker. Thus as one circular says:

"If the Letter of Credit/export order is not available at the time of granting of packing credit advances, banks may make advances on production of cables, letter etc. subject to the condition that the firm export order or the LC will be produced within a reasonable time" (DBOD No. BMBC.82/C. 297-p.72 14 September 1972). (Stress added)

This was further liberalised from 1973:

"Before making packing credit finance available to sea-food exporters the financing banks at present insist on a letter of credit or firm export order or other sufficient evidence e.g. cable, letter etc. subject to the condition that the firm export order or the LC will be produced within a reasonable time.....the bank may fix an overall limit for each exporter and make available to him a part of the overall limit without insisting on a letter of credit/export order..."(op.cit.)

Cheap credit must have definitely functioned as an incentive to enter the industry considering its liberal nature and the high interest rate prevailing in the unorganised money market.

(d) Export-Import Policy of the Government of India

Soaring prices and easy entry into the industry were set in the context of a set of encouraging export-import policies of the Union Government. Out of various schemes for export promotion three are applicable to marine products and function as incentives. They are:

- (i) Import replenishment licences (REP licence)
- (ii) Cash Compensatory support scheme and,
- (iii) Eligible Export House Scheme

(i) Import Replenishment Licences (REP):

Under this system introduced in 1966 exporters usually of non-traditional products like engineering goods, marine products etc., are allowed to retain a certain portion of their foreign exchange earnings

in the form of import licenses. The import replenishment granted to each exporter is equal to the import content of their exports. Granting of REP licenses were with the idea of providing an incentive for increased export activity. The replenishment license earned by exporting a particular product is also transferable in the sense that it could be sold at a premium to other manufacturers within the same group (See Nayyar, 1976; Wolf, M. 1982).

Table 4.9: Value of Replenishment Licence Issued to Marine Products Exporters and Its Share in Total Exports of Marine Products (1972-73 to 1983-84)

Year	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
Value												
Value of REP licences (Rs. million)	56.0	68.0	73.0	94.0	186.0	196.0	231.0	265.0	318.0	345.0	460.0	537.0
Value as a percentage of total marine product export	8	9	8	6.5	10	10	10	10.5	14	12	13	14

Source: Compiled from: Ministry of Commerce 1984

The rate of import replenishment for fish and fish products was only about 6.3 per cent in the post devaluation period (See Nayyar, D., 1970 p.234) but in 1983-84 it more than doubled and reached 14 per cent (See Table 4.9). In other words, if 6.3 per cent of the total value of marine

products exports were issued in import replenishment licenses in the late 1960's it has reached 14 per cent in 1983-84.

However, the share of import replenishment licenses granted to marine products is only 2.4 per cent of the total value of replenishment licenses (in 1979-80) (Wolf, M. 1982). This is mainly due to the fact that the import content of marine products exports is quite low.

According to some of the exporters we have interviewed these licenses are usually sold by the exporters to Large Business Houses at a premium. The premium fluctuates according to the foreign exchange scarcity and in the year 1982 one exporter has got a premium of 200 per cent on his REP licenses.

The full magnitude of the premium, however, is not properly reflected in the cost of production and profitability of the firm. For example, in a study (unpublished) done by MPEDA the premium on import entitlement is given only as 14 per cent which by all standards is quite low (N.P. Gopalakrishnan & Co., 1982).

Though the REP licenses were issued to all marine products exporters, in effect, it benefitted the large business houses and multinational corporations more than the other exporters of marine products. This is because the commodity group of these large houses and MNC's were much larger than the sole exporters of marine products which implied a greater scope of transferability of the license for these large houses which meant an even further increase in the market premium of their REP licenses (See MPEDA 1977b).

(ii) Cash compensatory support:

Under this scheme, which again is a post-devaluation programme, exporters of selected non-traditional products are granted cash subsidies specified as a fixed percentage of the f.o.b. value of exporters. "The stated objective was to enable exporters to meet competition in foreign markets, to develop marketing competence, and to neutralise disadvantages inherent in the present stage of development of the economy" (Annual Report of the Ministry of Commerce 1967-68 Government of India p.20 quoted in Nayyar D. 1976).

Table 4.10: CCS as a Percentage of the FOB Value of
Marine Products Exports (1974-75 to 1983-84)

Year	CCS/FOB	Recommended CCS/FOB in relation to freight disadvantage	Variance %
1974-75	-	N.A	-
1975-76	6.1	N.A	-
1976-77	4.9	N.A	-
1977-78	5.6	N.A	-
1978-79	5.4	N.A	-
1979-80	5.0	N.A	-
1980-81	6.5	4.0	62.5
1981-82	6.0	4.0	50
1982-83	6.6	4.0	65
1983-84	5.1	4.0	52.5

Sources: 1. Ministry of Commerce, 1984.

2. Gopalakrishnan, N.P. & Co. 1982

This scheme was made applicable to marine products only from 1975-76. Table 4.10 gives the proportion of the F.O.B value of marine

products exports distributed as cash compensatory support.

In the case of marine products exports CCS is intended mainly to neutralise the disadvantages of freight charges. According to a study done for MPEDA (Gopalakrishnan, N.P. & Co. 1982) the freight disadvantages that India suffer vis-à-vis her important competitors in the U.S. and the Japanese markets amount to 4 per cent of the total f.o.b. value of exports. Though the same rate, viz 4 per cent, is recommended by the study as CCS the table 4.10 shows that the actual support is about 45 per cent above the recommended rate.

Thus in addition to fully neutralising the freight disadvantages the CCS scheme also provides an incentive to the exporter.

Though liberal credit facilities of the commercial banks and REP licenses issued by the Central Government in themselves were positive incentives they were also misused by at least some of the firms in the industry. According to some of the bankers we had interviewed there were quite a few cases of diversion of packing credit from the marine products sector for other business purposes. This was mainly due to the peculiar nature of the industry which made a physical verification of the stock a very difficult task for the bankers (As per a banker it was virtually impossible to climb down into the frozen storage space which is at subzero temperature and verify the stock!)

REP licenses as we have mentioned earlier were sold at high premium to large business houses. These funds were largely unaccounted,

Thus the direct incentives also had certain inherent but illegal advantages to further the profit motive of the exporting firms. It is possible that some firms entered the arena in search of such dubious advantages.

(iii) Eligible Export House Scheme:

The introduction of this scheme in 1970-71 is the most important factor that attracted large business houses (LBH) and multinational corporations (MNC) into the marine products export industry. The object of the scheme was the granting of import replenishment licenses to strengthen export houses in their negotiating capacity for sales abroad; to build up a more enduring relationship between export houses and their supporting manufacturers; to enable them to keep their supporting manufacturers supplied with imported raw materials from ready stocks required for export production; and to develop cooperative relations with their counterparts in overseas markets.

The primary condition for a grant of an eligibility certificate under the said scheme to an Export House from 1972 was, that:

"they export non-traditional commodities as stipulated by the government ("canned and frozen good" is a product group that satisfies the non-traditional condition) and that the value of the exports should be not less than Rs.2,500,000(f.o.b) in the financial year 1972-73"
(Chough, Soon 1974)

Frozen prawn were an ideal commodity which satisfied both the non-traditional aspect and the value aspect of the policy.

Almost all the LBH/MNC's who entered the marine products export industry did not undertake any investment in production and processing though it was stipulated in the letters of intent/industrial license under the MRTP Act of Government of India that their processing activities should be confined to their own catch^{7/}(See MPEDA 1977^b). This was largely because of three reasons.

Firstly, since the export import policy of the Union Government were inconsistent, unpredictable and liable to change annually these houses were perhaps not sure of the long term prospects of an involvement which implied heavy capital investment.

Secondly, the intense competition within the industry which resulted in the relegation/marginalisation of many firms with installed but largely unutilised capacities had given rise to a class of processors who were prepared to process and pack for the LBH/MNC's on payment of incentives.

And thirdly, the official fisheries policy obliged LBH/MNC's to operate their fishing fleet only in the deep sea -- where resources are not properly identified and where species of high commercial value in the international market are absent - which meant a very high level of risk and uncertainty vis-a-vis the potential production.

ANALYSIS OF THE FIRMS

While the entry and performance of LBH/MNC's was basically a freak

7. Here we must notice the overlapping nature of the Government policies vis-a-vis promotion and vis-a-vis entry into the production and processing of marine products for LBH/MNC's. Though these firms under the Eligible Export House Scheme are required to export products of the small scale sector (of non-traditional commodities) which include marine products also, under the fisheries policy of the early and mid 1970's they are supposed to produce and process only whatever their own fleet catch from the deep sea (See MPEDA 1977^b p.15). This overlapping nature of policies was exploited by the LBH/MNC's to their advantage till the Union Government removed this anomaly in the late 1970's.

occurrence determined more by the Union Governments' policy towards the export houses, it is the analysis of Kerala based export firms that will provide us an insight into the workings of the export industry.. Our source of statistics for this analysis will be the MPEDA with whom all export units of frozen marine products with an annual export turnover of not less than Rs.2 lakhs are registered. More than 80 per cent of these firms are either proprietary or partnership concerns. We begin with a table of the composition of these registered units.

Table 4.11: Structure of Export Firms in the Frozen Prawn
Export Industry of Kerala
(1954-1982)^{8/}

Year of Registration	Fully integrated units	"Partially integrated" units	"Non integrated" units	Total
1954-62	6	2	-	8
1963-67	5	12	7	24
1968-70	5	8	8	21
1971-73	4	17	43	64
1974-76	1	17	45	63
1977-79	1	5	19	25
1980-82	-	6	13	19
Total	22	67	135	224

Source: Compiled from the Register of Exporters kept at the Marketing Division, MPEDA, Cochin

The majority of the firms - 60 per cent - entered the export industry between 1971-1976. The tendency for firms to be less than "fully integrated"

8. We have included only firms whose principal export is frozen prawn. Some of these firms, along with frozen prawn, also export or used to export small quantities of canned prawn, frozen frog leg, frozen lobster tails, cuttle fish etc. The aggregate number 224 does not mean that it includes all the firms who entered so far. We could not obtain the year of registration of some firms. Therefore, the actual number of exporters of frozen prawns ought to be slightly higher ~~larger~~ than this figure. But since these firms who may not be included have an insignificant share in exports we did not think our analysis will be affected.

continues into the 1970's. Whereas 30 per cent of the firms who entered in the pre-1970 period were "fully integrated" only 4 per cent who entered later are so. Similarly the proportion of firms who are "partially integrated" also shows a decline. From 42 per cent in the pre-1971 period it declined to 26 per cent in the later period. On the other hand firms without any investment in production and processing - non-integrated firms - increased discernibly from 9 per cent in the period 1954-70 to 70 per cent in 1971-1982.

In general what we observe vis-a-vis registration of firms is that after a hesitant start in the nascent stages of the industry, the entry becomes quite rapid, reaches its peak in the period 1971-76, further slides down to the pre-1970 rate in the post 1976 period.

A study of the firms registered in the 1970's does not tell us the main story of the 1970's. An MPEDA regulation in 1978 that firms who are not following the norms of registration should leave the industry led to a large number of firms getting deregistered in the period 1978 to 1983 i.e. having to cancel their registration with the MPEDA, the registration authority for marine products exports.

Table 4.12 gives the break up of the total number of firms into active and deregistered units and their respective composition according to the extent of integration. We shall first examine the conditions of the active firms and then make a brief review of the deregistration trend.

The Active Firms

The total number of "fully integrated" and "partially integrated" firms decrease substantially from 11 per cent to zero and 74 per cent to 31 per cent respectively in the period 1971 to 1982. During the same period, the proportion of "non-integrated" firms increase from 15 per cent

Table 4.12: Relative Composition of Active and Deregistered
Units as on December 1983

Year of Registration	Number of firms*	Status in 1983 and number of firms in each category		Of firms in Column 3 (In percentage)		
				Integ- rated	Partially integrated	Non integrated
1	2	3		4	5	6
1954-62	8	A	5	100	-	-
		D	3	33	67	-
1963-67	24	A	15	33	60	7
		D	9	-	33	67
1968-70	21	A	5	80	20	-
		D	16	6	44	50
1971-73	64	A	19	11	74	15
		D	45	4	7	89
1974-76	63	A	22	5	50	45
		D	41	-	15	85
1977-79	25	A	14	7	21	72
		D	11	-	18	82
1980-82	19	A	13	-	31	69
		D	6	-	33	67
Total	224	A	92 [@]	20	46	34
		D	132	3	19	78

Note: A - Active
D - Deregistered

* Under this column A signifies the number of units still active - in December 1983 but which were registered in the corresponding period. D signifies the number of units registered in this period but were which deregistered after 1978.

@ Total number of active units is less than actual number of firms who exported in 1982-83 because we could not obtain the year of registration of 22 firms who do not own any processing facilities

Source: Compiled from the Register of Exporters kept at the Marketing Division, MPEDA, Cochin.

period, the proportion of "non-integrated" firms increase from 15 per cent case of the deregistered firms, the largest number of firms still remaining active (as on December 1983), came into the business during the period 1971-1976. Out of the total number of 92 active firms about 45 per cent were registered in this period.

The reason for the increasing proportion of firms newly registered between 1971 and 1982 in the category of "non-integrated" units seems to be related to the availability of unutilised capacity and the increasing dependence on the lease market. Furthermore, the total absence of new firms in the "fully integrated" category from 1980 reflects the oversaturation of the production fleet for prawns, as pointed out by many sources (Kalawar et al 1985). This oversaturation made any new investment in production unviable, particularly in the context of declining production from the late 1970's.

The Deregistration Trend

In the 1970's and early 1980's about 60 per cent of the total number of firms got deregistered and left the industry.

Table 4.12 presents two distinguishing features of those firms which went out of business:

1. While 66 per cent of the active firms have their own processing facilities, only 22 per cent of the deregistered units had their own facilities. In other words, the majority of the firms that left the industry are those who did not have adequate competing power in the industry.
2. 65 per cent of the deregistered firms were registered between 1971 and 1976. In other words, these were the firms who were seduced by the early 1970's production boom.

Further, about 50 per cent of the deregistered firms were in business only for 4 to 7 years^{9/} (See Table 4.13).

Table 4.13: Years in Business of Deregistered units
(as on December 1983)

Number of years in business	Percentage of firms
1 to 3	10
4 to 7	50
8 to 11	22
12 to 15	12
16 to 19	4
20 to 24	1

Source: Compiled from the Register of Exporters kept at the Marketing Division, MPEDA, Cochin.

Table 4.12 and 4.13 have presented the defining characteristics of these firms who were forced to leave business. It is clear that the economically stronger and the older established firms flourished.

DYNAMICS OF COMPETITION AND CONCENTRATION

Throughout the period under analysis the export sector is controlled by firms with a turn over above Rs.10 million and their share in the total value of exports almost double from 44 per cent in 1969 to 84 per cent in

9. But this should not be interpreted to say that these firms were doing business all these years. Perhaps, many firms were not actively involved in exports before they actually deregistered.

1982-83(See Table 4.14). In the same period the share in value of the lowest strata of exporters decreased from 3 per cent to ~~0.5~~ per cent (See Table 4.14). The value output per firm almost quadrupled from Rs.2.67 million in 1969 to Rs.9.93 million in 1982-83. What is quite significant from the table is the increasing concentration of the largest proportion of exports in the hands of firms with a turnover above Rs.10 million over the period 1969 to 1982-83.

Until 1977-78 though the share in the total quantity and value keep fluctuating for all the categories, it starts changing in the subsequent years. When the share of all classes of exporters below Rs.10 million generally declines from 1977-78, both in quantity and value, that of the largest exporters continuously increase between 1977-78 and 1982-83.

The value output per firm of the largest exporters doubled from Rs.14 million in 1969 to Rs.28 million in 1982-83 (after reaching Rs.16 million in 1975). But interestingly in the period 1975 to 1982-83 (the period for which we have quantity figures) the quantity output per firm kept a low key. From ~~284~~²⁴⁴ tonnes in 1975 it decreased to 106 tonnes in 1977-78(the lowest) but recovered from 1978-79, but could not ever surpass the 1975 mark, reflecting the pressure on resource due to overfishing.

If we further split the firms with turnover above Rs.10 million the extent of concentration becomes even more acute (Table 4.15).

Table 4.14: Structure of the Frozen Prawn Export Industry in Kerala showing class-wise distribution of export shares (1969-1983)

Class of Exporter by Size of Annual Turnover	No. of firms	1969*		1974*		1975		1976-77		1977-78		1978-79		1979-80		1980-81		1981-82		1982-83										
		Percent		Percent		Percent		Percent		Percent		Percent		Percent		Percent		Percent		Percent										
		Quantity	Value	No. of firms	Quantity	Value	No. of firms	Quantity	Value	No. of firms	Quantity	Value	No. of firms	Quantity	Value	No. of firms	Quantity	Value	No. of firms	Quantity	Value	No. of firms	Quantity	Value						
1. Over Rs.10 million	8	-	44	6	-	30	15	47	50	22	48	58	13	26	38	18	45	55	25	60	68	20	62	67	28	73	77	34	80	84
2. Rs.5-10 million	6	-	20	15	-	28	18	30	28	19	23	20	23	32	31	20	26	22	20	21	18	21	23	19	17	15	13	14	10	9
3. Rs.2-5 million	17	-	22	26	-	24	22	18	15	32	20	16	39	32	24	25	17	14	22	12	10	19	11	10	19	7	6	15	7	5
4. Rs.0.5-Rs.2 million	27	-	13	47	-	14	23	6	5	29	6	5	31	7	6	34	9	7	33	6	5	18	3	3	23	4	3	18	3	2
5. <Rs.0.5 million	35	-	3	59	-	3	21	neg	1	57	2	1	60	3	2	51	3	2	50	1	1	47	1	1	43	1	1	33	1	0.5
6. Total No. of firms	93**			153**				99				159			166			148			150			125			130			114***
7. Total Quantity exported by these firms(MT)	NA			NA				24200				23350			17600			20800			25000			24500			25400			27650
8. Total Value of these Exports (in Rs.million)	248.25			349.73				470.77				700.56			524.05			605.55			808.24			766.84			986.70			1131.66
9. Output/firm (MT)	-			-				22 244				147			106			141			167			196			195			243
10. Output/firm (Rs.million)	2.67			2.29				4.75				4.41			3.16			4.04			5.39			6.13			7.59			9.93

Source: Data files of MPEDA, Cochin

* From John, V. 1976.

** Includes dry prawn/fish, frozen fish, canned prawns exporters

*** Number of firms who undertook exports are more than the number of firms in business (Table 4.12)
This is because we could not get the year of registration of '22' firms who entered the industry after 1978.

(Quantity and value percentages are shares of total)

Table 4.15: Distribution of the Largest Class of Exporters
of Frozen Prawns (1975 to 1982-83)

(In percentage)

Class of Exporter (In Rs.millions)	1975	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
> 30	14	25	NA	22	52	50	56	60
20-30	21	24	34	29	9	20	13	13
10-20	65	51	66	49	39	30	31	27
TOTAL TURNOVER (in Rs.million) (rounded off)	23	41	20	34	55	51	76	95

Source: Compiled from the data files of MPEDA, Cochin

As seen in the table the share of exporters with a turnover above Rs.30 million (numbering just one in 1975 and 10 in 1982-83) increase from a mere 14 per cent in 1975 to 60 per cent in 1982-83. The share of both the other groups fall from 21 per cent and 65 per cent in the year 1975 to 13 and 27 per cent respectively in 1982-83.

Tables 4.14 and 4.15 give a succinct idea about the apparent concentration of export earning in the frozen prawns export sector. However since the price of prawns continuously increased in the world market (See Table 4.3) -- it almost quadrupled from 1971 to 1982--this table will not reflect the real extent of concentration. We have therefore worked out the

Lorenz ratio for the years 1975 to 1982-83 (See Table 4.16)

Table 4.16: Lorenz ratio* of Exports by Firms in
Kerala
(1975-1983)

Year	Lorenz Ratio
1975	0.60
1976-77	0.67
1977-78	0.63
1978-79	0.64
1979-80	0.70
1980-81	0.69
1981-82	0.71
1982-83	0.70

Source: Data from Files of MPEDA

*The Lorenz Ratios were calculated using the methodology given in C. Mukherjee and S. Bai, 1979

The ratios reveal an increase in concentration from 0.60 in 1975 to 0.70 in 1982-83. On the other hand, in the period 1969 to 1974 there was hardly any increase in concentration (See John, V. 1976), though the distribution of export earnings was highly skewed as it is now.

Lorenz ratios show that there is increasing inequality. They do not tell us the position of the largest and the smallest exporters which will give us a better idea about the extent of inequality. This is shown in Table 4.17.

Table 4.17: Share in Total Exports of the Top-most and
Bottom-most Decile Groups
(1975-1983)

Year	Total number of firms	Total Exports (Rs.million)	Share in total exports		Number of firms in each of the two decile group
			Top 10% of firms (Percentages)	Bottom 10% of firms (Percentages)	
1975	99	470.47	38	0.12	10
1976-77	159	700.56	49	0.11	16
1977-78	166	524.05	44	0.12	17
1978-79	148	605.55	50	0.11	15
1979-80	150	808.24	53	0.04	15
1980-81	125	766.84	54	0.05	13
1981-82	130	986.70	55	0.06	13
1982-83	114	1131.66	53	0.03	11

Source: Calculated from the Data files of MPEDA

Right from 1975 we notice that the distribution of export earnings is highly skewed^{10/} and it becomes even more skewed over time with the share of the top most firms becoming larger and that of the bottom decile becoming smaller and smaller.

10. The Lorenz ratio estimation of Valsala John for the years 1969 and 1974 also points in this direction viz. the skewed nature of distribution.

Tables 4.14, 4.15, 4.16 and 4.17 conclusively prove that there is increasing concentration overtime^{11/} Now let us see the implication of this increasing concentration and how this is related to the competition between the large and the small firms in Kerala.

Competition: Between the Large and Small Kerala Based Firms

When the share of topmost exporters (turnover above Rs.10 million) in the total quantity of exports increased from 47% to 80% that of all the other exporters suffered a decline from 18% to 5% between 1975 and 1983. This clearly establishes their market power. The superior market power of the large exporters can be attributed to two reasons.

- (a) A better control over procurement market, and
- (b) A better leverage in the international market

Control over the procurement market is facilitated by offering attractive terms and incentives to a few agents who are the principal suppliers of prawns. In addition to paying a relatively higher price for the larger size of prawn which command a premium in the international market, the larger export firms provide their agents with various incentives, like

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11. The growth of large established firms is reflected not only in the increasing concentration on the prawn export industry, but also in their diversification activities. Perhaps concerned about the worsening resource situation by the late 1970's some of the firms started diversifying into other activities like manufacture of industrial and food products and the hotel industry. Some times, surplus was invested in modernisation like acquiring new forms of freezing technology for example, Integrated Quick Freezing, Accelerated Freeze Drying etc. which enables them to improve quality and fetch a higher price. However, the pace of such modernisation requires further study.

reimbursing the transportation cost and advancing of loans to participate in auction sales etc. (Also See Appendix 2)

This apparent largesse of these firms stem from the fact that their product has a higher unit value realisation in the international market for reasons of quality and due to their more reliable image among the foreign buyers (See Table 4.18).

Table 4.18: Average Unit Value Realisation of Different
Class of Exporters from Kerala
(1975 to 1982-83)

(Rs./Kg f.o.b)

Class of Exporter (in Rs. million)	Year							
	1975	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
Over 10	20.7	36.3	43.2	35.1	34.2	34.1	40.9	42.9
5 to 10	18.2	26.1	28.2	24.6	27.4	25.7	33.7	38.6
2 to 5	16.7	22.9	22.6	24.1	24.9	27.5	33.0	28.4
0.5 to 2	17.4	21.7	23.2	22.8	24.1	28.5	29.7	26.1
Below 0.5	13.7	19.7	20.7	16.1	25.0	22.6	33.5	30.6

Source: Calculated from the data files of MPEDA, Cochin

Higher unit value realisation is also because of the ability of these firms to undertake bulk export orders as desired by the importers. The latter always prefer to deal with a smaller number of large firms rather than many small ones, particularly in markets where they are the price makers (See Appendix 1).

Thus we see that payment of higher procurement prices leads to the flow of resources into the hands of the large exporters which in turn enables them to realise a better price in the international market. The circle is complete.

The market power of the established large export firms reveals itself fully in the clash with the LBH/MNC's over market control.

Competition:

Between the LBHs, MNC's and the Large Kerala Based Firms

As we have mentioned earlier LBH's and MNC's entered the frozen prawn export industry from the early 1970's. The entry of these houses, basically to retain their special Export House status posed a threat to the established large exporters because of the loosing market share arising from the aggressive procurement practices of these houses. Unlike the established firms the procurement of these houses were not confined to one locality or a particular region. In general, they used to procure from all the important shrimp landing centres in India. Their intervention in the procurement market was either direct or indirect. It was mostly the latter because most of them did not have their own processing facilities and they were making use of the unutilized processing capacity in the industry. Mainly two kinds of incentives were provided to the firm who did procurement, processing and packing. Firstly, they were advanced interest free loans which was almost equivalent to their working capital requirement and secondly, in return for services rendered, they were

normally given a commission of 7 to 10% of the actual f.o.b. value of the consignment over and above the entire sale proceeds.

In a situation where most of the exports were confined to the highest class of exporters, these incentives provided by the LBH/MNC's facilitated many passive firms with dormant processing capacity to compete with the larger ones for procurement. Since the entire risk and financial responsibility were shouldered by the large houses these firms were like commission agents.

Largely as a result of these practices the beach price of prawns almost quintupled from Rs.1600 per tonne in 1969-70 to Rs.7260 per tonne in 1976-77. As a result of exorbitant prices paid to the producer established firms found it difficult to compete with the firms supported by MNC/LBH's (See MPEDA 1977b). At the same time, on the all India level the market share of these houses numbering thirteen in 1976-77 reached 26 per cent of the total value of exports (See Table 4.19), barely four years after making an entry into the frozen prawn export sector. The large established firms were perplexed by this alarming growth of the LBH's and multinational corporations who undertook minimal investment in the industry. They had already in the early 1970's, perceiving a threat to their monopoly, made representation to the Government of India to clamp down on the activities and freedom of LBH's and MNC's in the frozen prawn export sector. As a result the Ministry of Commerce appointed a Committee in 1975 to enquire into the allegations against big industrial houses in the marine products industry (See MPEDA 1977^b).

Table 4.19: Share of Large Business Houses Multinational Corporations and Kerala Based firms with Turnover Above Rs.10 million in the Frozen Prawn Exports of India

(1976-77 to 1980-81)

Year	Total Exports from India (Frozen-prawn)		Total Exports of LBH's and MNC's		Percentage share in Total Indian Exports			
	Quantity (MT)	Value (Rs. million)	Quantity (MT)	Value (Rs. million)	LBH/MNC		Kerala based firm with a turnover above Rs.10 million	
					Q	V	Q	V
1976-77	49375	1680.0	8304	433.0	17	26	23	24
1977-78	50067	1583.0	8402	280.0	17	18	9	13
1978-79	51162	1948.0	16888	356.0	33	18	18	17
1979-80	51068	2112.0	12673	274.0	25	13	29	26
1980-81	51358	2018.0	6124	221.0	12	11	30	25

Note: Total Exports of Big Industrial Houses do not include firms exporting from Cochin (Numbering 3)

Source: MPEDA data files

What we gathered from the industry is that while the committee was proceeding with its enquiries the competition in the field intensified between 1976-77 and 1980-81. Some of the big business houses began to

place more emphasis on their east-coast operations, but we see that their share of the export market continues to dwindle steadily while the large established firms in Kerala maintain their position (See Table 4.19). What dealt the decisive blow to the involvement of large business houses and MNC's in the marine products export sector was not the economic clout of the established large exporters. On the contrary, it was the package of recommendations made by the Committee.

This Committee unequivocally stated that "large industrial houses and such of the Export Houses not solely engaged in the sea-food exports should not be permitted to take processing plants on lease and the small manufacturer/exporter should also not be permitted to pack for large industrial houses" (MPEDA 1977b) the government tightened the export-import policy, made it mandatory for large houses to process only whatever they produce from the early 1980's (See Ministry of Commerce 1982). Consequently we see that almost all these large houses left the sea-food sector except for one or two who had their own fishing fleets and processing facilities.^{13/}

What is most interesting about the entry and exit of big Industrial houses is not their nature or specificities of involvement, but the clout of the established exporters who successfully push out the "threat" pleading mercy to the Government of India under the alibi that they are small exporters! If we examine the specifics of the involvement of LBH's/MNC's

13. In fact one of the main complaints against LBH/MNC's by the established exporters was that they paid very high procurement prices which was unaffordable and uneconomical for them (MPEDA 1977)

it was not inimical to the interests of the industry per se but only to the interests of the industry per se but only to the interest of the established exporters. The contributions of LBH's/MNC's to the industry were that they took the competition out of the large exporters to exporters without any significant financial clout and ensured a better price for the producer.

Though these firms, who processed for big industrial houses, had processing facilities, they could not compete with the large established exporters mainly because of difficulties in raising finance to buy raw material. This situation arose out of either refusal of banks to advance packing credit (because of breach of trust, non-repayment of outstanding credit) or out of huge financial commitments (arising from rejection of consignment, spoilage of raw material dead stock etc.) which the firm found difficult to settle within the existing means.

A classic example is of a Cochin based firm called Indo Marine Agencies. This firm one of the pioneers who entered the industry in 1956 was one among the top five export firms in Kerala until 1982-83. But as a result of poor financial management and problems arising from accumulation of dead stock of prawns the firm faced serious difficulties with raising its working capital. Since the liabilities of the firm with its banker was over Rs.10 million packing credit was not advanced by banks (from a confidential study done by the banker of this firm).

Nevertheless, the whole firm was taken over by Hindustan Lever

from 1983 onwards. The plant and machinery of the firm and its staff were utilized for packing the entire raw material the firm could procure for export under the brand name of Hindustan Lever. This was on payment of a service charge of Rs.2500/ton over and above the advancement of working capital.

Similarly, another processor whom we interviewed had problems with getting loans from banks in the form of packing credit because of his lack of credibility. But ITC Ltd. came forward in the early 1970's to advance loans to him to meet his working capital requirement on the condition that he would export his consignment under their brand name.

In spite of the benefits many weaker firms gained from the entry of LBH/MNC's. The Committee appointed by the Government also, as we have quoted on page ~~30~~³⁷, took a position not necessarily in favour of the industry, but of the large established exporters in the industry which is later endorsed by the Government of India.

In a sense the large number of entrants into the export sector in the 1970s and the few LBH/MNC's had a common character. Both were firms with minimum investment in processing. But the salient difference is that LBH/MNC's made a definite impact, which was quite positive on the industry whereas the former did not make any.

Though the established exporters made a protection clamour (See MPEDA 1977^b) the actual operations of the large houses do not seem to

have affected them in any concrete way.^{14/} Thus, in spite of the presence of these houses, we see that established large exporters increase their share of total exports from ~~50 to 67%~~^{47 to 62%} (quantity) and **50** to 67%(value) between 1975 and 1980-81 (Table 4.14) the period in which the large houses were the most ~~ive~~ active.

Similarly the average unit value realisation is also generally higher for established large exporters vis-a-vis the LBH/MNC's (See Table 4.20)

Table 4.20: Comparison of Average Unit Value Realization of Large Exporters (turnover above Rs.10 million) in Kerala with LBH's and MNC's (Rs. per Kg.)

Year	Large Kerala Based Firms	LBH's/MNC's
1976-77	36	50
1977-78	43	33
1978-79	35	22
1979-80	34	21
1980-81	34	36
Average (A.M) unit value	36.4	32.4

Source: Data files of MPEDA, Cochin

14. The main threat they must have faced seems to be related to the availability of processing facilities in the lease market. Since the LBH/MNC's were financially in a better position to negotiate with firms who have dormant facilities, established firms who always had to depend on these firms during peak production periods (arising from the concentration of production in four months) must have seen their involvement as a real threat in processing adequate capacity as and when they wanted. The competition from the LBH/MNC's or its possibility must have definitely affected the leasing rate of processing facilities and must have been perceived as uneconomic.

Summary

From the preceeding analysis the contrast between those firms that did well and those that did not emerges clearly. Given the fact that the trawling industry consisted primarily of pure trawling firms with no interests in undertaking direct exports, the key to exports in situation of acute resource constraint was held by easy access to processing facilities and tested linkages with prawn procurement and the international markets. In fact, most of the firms that stayed on into the 1980's had processing facilities unlike those who fell by the way side. Out of 127 firms which registered in the boom period 1971-76, 86 firms went out of business out of which 75 were 'non-integrated'. These could be characterized as fly by night operators who with neither knowledge nor long term involvement in the industry were only interested in capitalising on the production boom and the lures of easy credit, unlike those who revealed their understanding and involvement by investing in processing capacity even in the excess capacity situation of the 70's. They carefully cultivated procurement agents by offering a better price and stability just as they satisfied foreign buyers with their bulk sales, quality, promptness and reliability. Thus we have exporters operating in the entire range of the wide spectrum provided by the two extremes of the speculative fly by night operators and the assiduous export firms.

Chapter V

SUMMARY AND CONCLUSIONS

In the previous chapters, we have charted out the growth and changing structure of the frozen prawn export industry in Kerala between the 1950's and early 1980's.. In the 1950's the old dry prawns trade was just giving way to a handful of frozen prawn exporters exporting a few crores worth of prawns. . The eighties see a highly concentrated industry worth more than Rs.300 crores. This change was not gradual but the result of turbulent developments.

The factorsthat initially attracted firms into frozen prawn exports were its enormous profit potential arising out of its high price in the international market and seemingly unlimited production potential . Till the second half of the 1960's, the firms who entered the industry responded to the international demand on their own without any significant state assistance in terms of credit and incentives. They were helped in this endeavour by their buyers in the US and the Norwegian aided fisheries development project in Kerala .

From mid 1960's with the establishment of the viability of the export operations we see that a large number of firms enter the industry.. The

number of entrants increased rapidly from the early 1970's. This was largely due to sky-rocketing prices in the international market resulting from competition between the US and Japanese buyers, increasing prawn harvests from the Kerala seas and the liberal credit policy of commercial banks. The early 1970's also saw the entry of large business houses and multinational corporations whose main reason for entry was to comply with the changing export import policy of the Union Government.

But by late 1970's and early 1980's most of the new entrants including the multinational corporations and LBHs left the industry. This was mainly because of the early start, and the financial and political clout of the more established Kerala based exporters who had a better control over the procurement of prawns, the processing facilities and the international market. They also seemed to wield a better influence with the government.

What finally emerges is a situation of large, established exporters, increasing their market share and accounting for more than 80 per cent of Kerala's frozen prawn exports. In the process of achieving this they push out of the industry both the weak and relatively new entrants and also the seemingly big time operators like the Indian large business houses and multinational corporations

In the Introduction we had enunciated the focus of this study viz. the manner of the emergence of frozen prawns as an important and successful foreign exchange earner; the nature of competition among firms exporting

prawns and the specific nature and role of the firms within the industry and the character of state support extended to them. We would like to draw together here a few insights from our study.

A Successful Export Industry

From being nowhere in the picture of important exports from India till the late 1960's, marine products emerged as one of the ten most important exports from 1975-76 and in 1983-84 it became the sixth largest export from India. This enviable growth in the value of exports was possible primarily because of a single commodity viz. frozen prawns which accounts for more than 60% of the total quantity and 85% of the value of marine products exports in 1984.

This growth in exports of marine products is particularly significant when we consider the general decline in the proportion of food items exported from India from 32.8 per cent in 1960-61 to 27.6 per cent in 1978-79^{1/}(See Wolf, M 1982 p 26). In fact, the supply response of marine products vis-a-vis other food products was the best in the export market. And in relation to all the other principal exports it is one among the top five (in terms of quantity index)(See Wolf, M 1982 tables on pp.162-165).

This graduation of marine products was possible because of various factors. First of all, the 'discovery' of rich prawn fields in the inshore waters as a result of the initiative of the Indo Norwegian Project

1. This include fish and fish preparation, fruits, sugar, coffee, tea, spices, oilcakes, cashew etc.

in Kerala laid the foundation for this industry. Easy availability and accessibility of prawns because of abundance and locational advantage facilitated easy harvest with relatively low levels of capital investment. Secondly, the publicity which the INP got abroad being the first aid project in the post second war era also brought into focus of the west, particularly, the U.S., the availability of prawns and its magnitude in Indian waters. This piece of knowledge came at a crucial juncture when the U.S. ^{was} on the look out for new sources of import as a result of full utilization of prawn and shrimp resources in the Gulf of Mexico.

Thirdly, the presence of an entrepreneurial class of traders (involved in the export of dry prawns, cashew and coir products, import of engineering goods and machinery etc.) with a willingness to undertake new exports provided the necessary conduit for prawns from India to reach the international market. The requisite technology for freezing, storage and transport were imported from abroad or supplied by their buyers in the U.S.

Fourthly, the unit value realisation of marine products exports particularly prawns have been always increasing overtime. According to the unit value indices of exports (See Wolf, M.1982) between 1960-61 and 1970-71 marine products registered the largest increase in unit value vis-a-vis other exports from India. From 101 in 1960-61 the index moved to 298 in 1970-71 (base year 1958). The index of marine products in 1970-71 was second only to spices. The unit value index of marine products exports in the period 1968-69 to 1978-79 (1968-69 = 100) increased by three-fold from 111 in 1969-70 to 346 in 1978-79. In terms of increase

in unit value this was the sixth among all the exports from India. The increase in unit value of marine products - which primarily reflects the unit value of frozen prawns - was mainly because of stagnation in world production of prawns and the aggressive buying by Japan which in the 1970's became the largest importer of prawns in the world. The success story of marine products exports is therefore the 'success' story of frozen prawns.

Nature of Competition

Once the viability of the frozen prawn export market got established by the early 1960's (as a result of the initiative of a few entrepreneurs from Cochin) more and more firms came into the industry. Most of these firms were involved basically in trading activities before entering this industry. In spite of this entry, export earnings were confined mostly to some of the established exporters, its distribution was skewed and the extent of concentration increased over time.

In 1982-83 ten exporters accounted for more than 50 per cent of the total earnings. Over the period 1975 to 1982-83 the top ten per cent of export firms increased their share from 38 per cent to 53 per cent whereas the share of the bottom decile of firms decreased from 0.12 per cent to 0.03 per cent. This increasing concentration is mainly because of a clear cut competitive edge which larger established firms have over the others vis-a-vis procurement, ability to get export orders and their command over processing capacity. For example, in the procurement

market. whenever and wherever the necessity arises, large exporters ensure their market share of raw material by employing certain types of incentives to the suppliers of prawns in the form of advances to partake in auctions, premium on supply of large quantities of good quality material etc. They also enjoy tremendous credibility with the importers because of their promptness in the execution of the export order and the shipment of good quality prawns. Among the active exporters, the larger ones command the highest share of processing capacity which enables them to procure, process and export more efficiently during the peak seasons.

The competitive edge of the established large exporters, in addition to an explicit economic character, also have certain non-economic characteristics. This is particularly manifested in the context of their tussle with large business houses and multinational corporations, who eventually had to more or less leave the industry. These exporters could pressurise the apex body of marine products called The Marine Products Export Development Authority to come out with suggestions to the Government of India which openly supported their apprehensions against LBH's and MNC's.^{2/}

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2. The clout of established exporters arise from the fact that in the director board of MPEDA apart from representatives of the Government and the Parliament, the other members are: four representing the interests of the owners of the fishing vessels, processing plants etc. and three representing the interests of dealers and persons employed in the marine products industry (See Kurien, J 1978b). In other words the exporters who have not invested in processing facilities - lease market operators - are not represented at all.

An important point to notice here is that when the competition is between big and small firms within the industry who deal exclusively in marine products - the competitive advantage of established large exporters has an overtly economic character but when the competition is between established large exporters and LBH's/MNC's other factors also play a role, mainly for preempting a potential threat.

Nature of Firms and State Support

Different kinds of firms with varying levels of involvement in the industry cautions us from attempting at any fixed characterisation of capital in the industry - for example as "merchant capital" as Kurien, J has done in his paper (Kurien, J 1978b). What becomes unequivocally clear from the different kinds of involvement of firms^{is} that they are quite heterogenous: the industry is far away from any homogenous categorisation. With our present knowledge what we can say about the nature of these firms is that they exhibit the characteristics of merchant, usury and industrial capital. Unless we have a detailed understanding of profitability; utilization of surplus; sickness, technical change in the processing/packing departments; changing relations between the big, medium and small exporters, processors, procuring agents, trawler operators, traditional fishermen, financiers etc. and also the changing relationship between the foreign buyers and indigenous exporters we cannot say anything definite about the nature and role of the firms and the form of capital in the industry.

It can also be unequivocally stated that the frozen prawn export

industry as we see today is largely built up by private enterprise. It has benefitted at different points in time from government policy vis-a-vis production and export. Construction of fishing harbours, boat building yards, advancement of loans for the purchase of trawlers etc. benefitted the export sector. The initiation of the Indo Norwegian Project in Quilon district itself has played an epoch-making role in the development of the frozen prawn exports.

The export-import policy of the Union Government, though initially it did not have any discernible role to play in the promotion of marine products exports, from the 1970's benefitted the sector through schemes like REP licences, Cash Compensatory Support etc. Equally significant are the efforts of the Central Government in shielding the established exporters from an attrition of their market share by LBI's and MNC's.

Similarly, the banking policy also became supportive of the industry from the 1970s, though it was not so in the period prior to 1971. The terms and conditions for the advancement of packing credit are very liberal for the seafood export industry.

It is worth noticing that the marine products export industry started receiving the support of export-import policies and banking policy only after it had emerged as an important earner of foreign exchange. In other words, most of the support from the State machinery and its allied agencies were forthcoming only after it had become a 'success' story in the export market of India. Again, some of the benefits which percolated down to marine products were not a consequence of ~~international~~ ^{international} policies but were accidental in nature, spilling over from policies meant for the development of some other sector.

APPENDIX I

INDIA'S MARINE EXPORTS: GROWTH OF PRAWN EXPORTS
AND THE STRUCTURE OF THE INTERNATIONAL MARKET

In this appendix we will set out the context in which a rising demand for Indian prawns took place from the 1960s onwards and the subsequent emergence of India as the world's largest exporter of penaeid prawns. We will look here at the reasons for the emergence of first the USA and then Japan as the two major buyers of Indian prawns. We will bring out the differing buying practices of the USA and Japan and their impact on Indian exports. We will also discuss the possible reasons for India being a price taker rather than a price maker, inspite of being the largest exporter in the world.

According to the FAO year book of Statistics, the total international trade in crustaceans and molluscs^{1/} in 1948 was to the tune of 177,000 tonnes at a value of US\$72 million. In 1982 it was 2.4 million tonnes at a value of US\$9,652 million. The total growth in quantity over the period 1948-82 was by fourteen times and the value by almost 135 times. India, on her part, increased the quantity of frozen prawn exports from

1. The breakup of Crustaceans and Molluscs separately is not available from the FAO Yearbook of Statistics.

500 tonnes in 1957(State Planning Board, 1969) to 55000 tonnes in 1982.
(MPEDA, 1984b).

The following table gives the present day origin and destination of trade in prawns.

Table 1: Prawns, Direction of Trade, 1980.

(Thousand metric tonnes)

From	To			TOTAL
	USA	JAPAN	W. EUROPE	
ASIA			10.3*	10.3
India	5.9	35.2	5.9	47.0
Indonesia	-	27.6	--	27.6
China	0.4	14.5	1.2	16.1
Thailand	4.0	8.9	-	12.9
Pakistan	1.5	3.6	-	5.1
NORTH AND SOUTH AMERICA			3.6	3.6
Mexico	34.6	3.4		38.0
Ecuador	9.2	-	-	9.2
Panama	6.2	-	-	6.2
Brazil	4.0	2.7	--	6.7
EUROPE	2.1	-	32.00**	34.1
AUSTRALIA AND OCEANIA	0.7	8.1	-	8.8
AFRICA	0.9	--	5.3	6.2
OTHERS	30.2	39.3	30.5	100.0
Total	99.7	143.3	88.8	331.8

*Malaysia 9000 tonnes

**Mostly cold water shrimp

Source: Rackowe et al 1983.

As is evident from the table, the USA meets bulk of her requirements (54%) from neighbouring North and South American countries while Japan gets 63% of her requirements from Asian countries. In any case the major exporters

are from the developing world, with India occupying the pride of place. In fact from 1973, India has been the premier producer of prawns in the world. On the top of that, India, unlike other producing countries, exports almost the entire catch. Tables 2 and 3 clearly establish that.

Table 2: World Catch of Shrimp and Prawns, by Major Producing Countries: 1973-1981 (Thousand Metric Tonnes, Live Weight)

Country	Year								
	1973	1974	1975	1976	1977	1978	1979	1980	1981
India	208	246	246	198	233	187	183	244	244
Indonesia	60	58	68	121	146	150	155	136	160
China	33	40	79	125	197	234	131	167	193
USA	173	169	157	184	216	192	152	162	161
Thailand	113	92	105	111	138	143	131	133	122
Malaysia	65	78	48	58	64	82	86	84	94
Mexico	73	74	69	72	79	67	74	77	72
Brazil	49	43	43	38	51	55	79	74	79
Japan	62	79	69	61	54	60	53	51	54
Vietnam	62	62	62	62	62	62	62	62	62

Source: Rackowe et al. 1983 Market for Shrimp. FAO, Malaysia.

Table 3: Countrywise Percentage of Catch Exported in the year 1981

Country	Total catch (MT) Live weight	Total* catch product weight	Exports (MT) product weight	Share of Exports in total catch (percentage)
India	84,000**	55,000	55,000	100
Indonesia	160,000	105,000	24,200***	23
Thailand	94,000	62,000	13,300	21
Mexico	72,000	47,000	35,200	75
China	193,000	127,000	15,000	12

*1.52 tonnes of live weight 'approximately equal to
1 ton product weight

**Only penaeid prawns

***Only to Japan

Source: The Marine Products Export Development Authority 1984b

THE U.S. MARKET: PRODUCTION, CONSUMPTION AND IMPORTS

Historically, two reasons are mainly responsible for the spurt in demand for prawns in the USA. Firstly the acquirement of a taste for prawns arising from the consequences of the contingencies of the 2nd world war ^{3/} resulting in more people eating prawns and secondly, due to

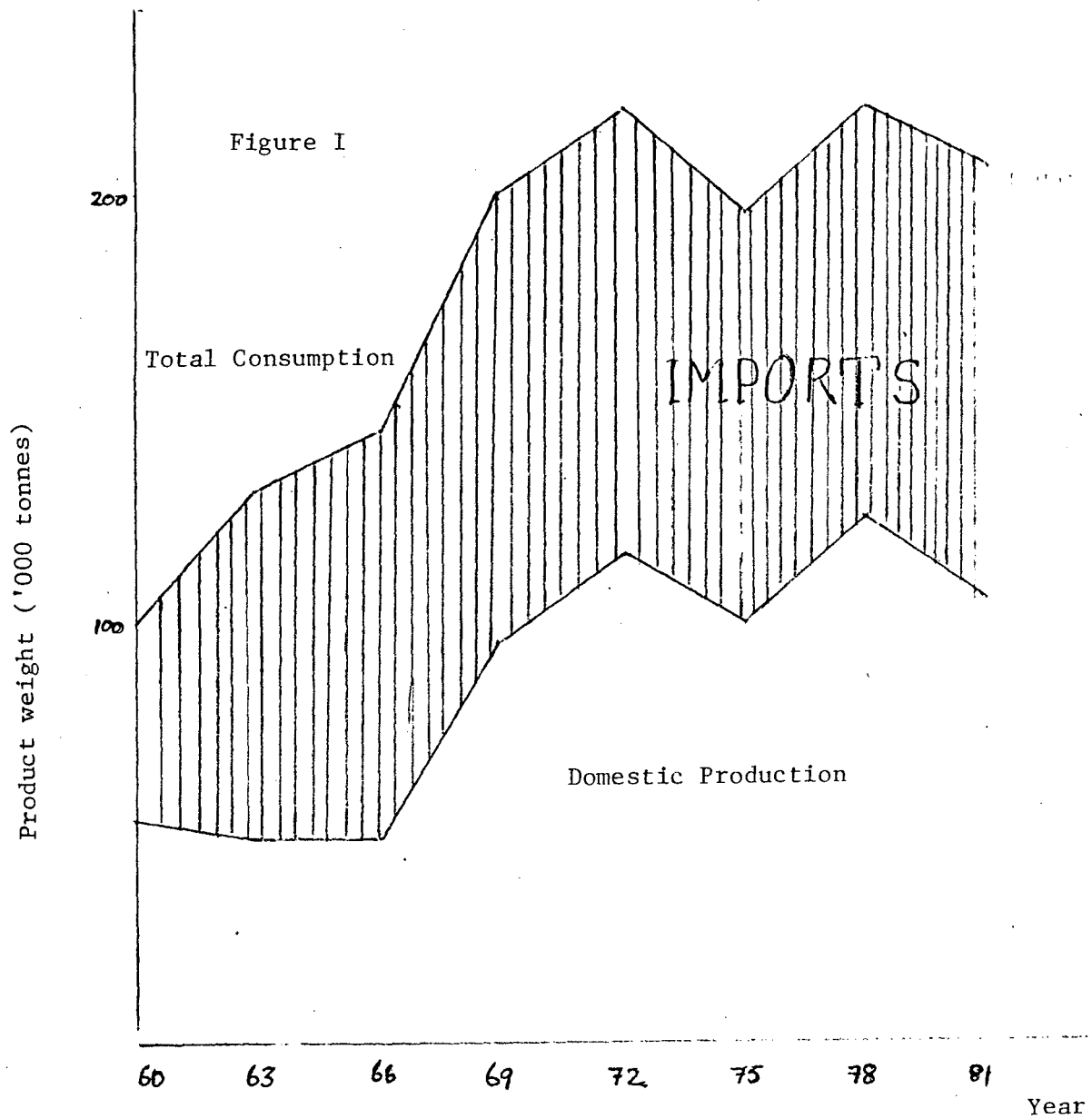
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3. Before World War II very little sea-food was sold inland. During the war due to meat shortage more people began to eat sea-food. Also due to population shifts during the war many inland people were introduced to sea-food and on returning home continued with it.

the spread and acceptance of freezing technology after the war making it possible to sell frozen food in all the retail stores throughout the country (anonymous source). As a result of these changes total consumption in the US quadrupled from 56000 tonnes in 1954 to 2,10,000 tonnes in 1981. On the other hand production increased only from 17,100 tonnes to 1,10,000 tonnes in the same period - about 50% of total consumption. (Source: Anonymous Report for the 1950's, and Rackowe R et al 1983 for the 1980's). Therefore it was necessary to bridge the gap between production and consumption.

Figure 1 reveals the trends in production, consumption and imports of the USA between 1960 and 1981. The USA had two phases of stagnation in their production regime interspaced with two periods of rising production. The periods of rising production in 1966-72 and 1975-78 were largely due to the heavy cold water shrimp landings in Alaska. The stagnation is mainly because of the fact that all the existing fishing grounds are already fully exploited and also partly because of loss of access to distant water fishing grounds, especially that of Mexico. Table 4 gives the trends in source wise supply of imports into the USA.

The USA meets the bulk of her requirements from countries in north and South America particularly Mexico, Ecuador and Panama. Over the period 1963-81 the average share of the American continent is 75%. The share of Mexico and Panama in 1963 was about 60% and that of these

United States Shrimp Production and Imports (1960-1981)



Source: Rackowe, et al, 1983

Table 4: USA Shrimp Imports by Country of Origin
 (Thousand Metric tonnes product weight)
 (1963 to 1981 Selected years)

Country of origin	Year						
	1963	1966	1969	1972	1975	1978	1981
NORTH AND SOUTH AMERICA							
Mexico	34.7	31.2	25.5	36.7	34.1	33.0	32.2
Ecuador	-	-	-	4.0	3.7	5.0	11.2
Panama	4.7	4.4	4.5	4.6	4.5	4.2	7.2
Brazil	-	-	-	4.0	0.6	1.8	5.0
Others	13.5	14.0	22.9	23.4	20.9	16.5	19.2
ASIA							
India	4.5	7.5	15.6	15.2	13.5	17.8	8.6
Others	5.9	13.5	9.4	12.1	12.1	11.1	14.8
EUROPE, AUSTRALIA, AFRICA etc.							
	5.4	6.7	10.0	1.1	1.0	0.6	0.5
Total	68.7	81.0	87.9	101.5	91.6	90.1	101.3

Source: 1. Peckham, C.J. et al 1974
 2. Rackowe, R et al 1983

two plus Ecuador^{4/} in 1981 was just 50%. From the Asian region, India is the most important source of supply to the USA. Her share increased from 6% in 1963 to 20% in 1978 and later fell to 8% in 1981. Till 1980

4. Ecuador became a supplier to the USA only from 1972. She almost trebled her exports to the USA between 1972 and 1981 because of high investments in Shrimp farming.

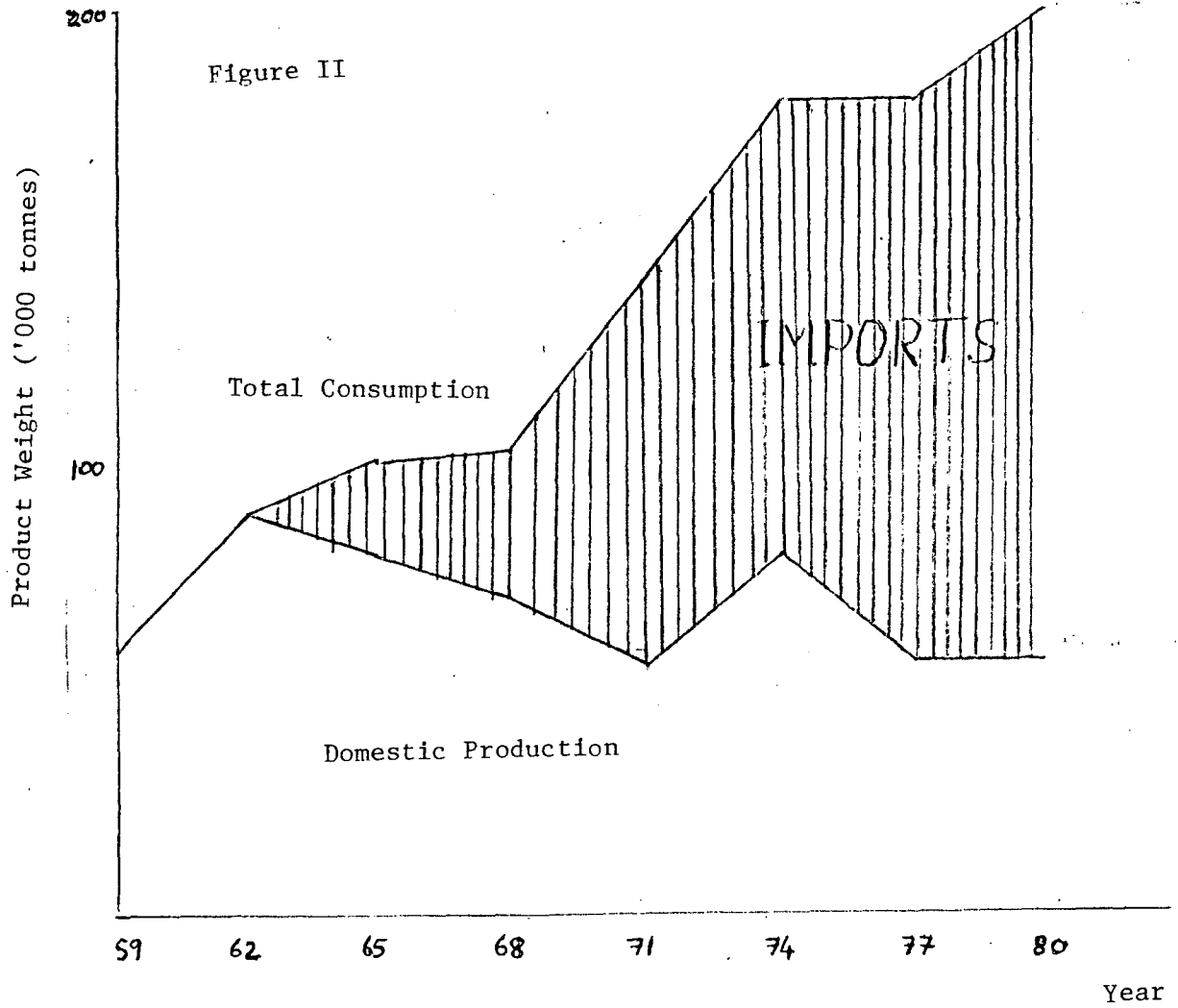
India was the biggest supplier second only to Mexico. The increasing market share of India until 1978 was mainly due to the inability of the major South American Suppliers to increase their exports because of imminent resource depletion.

THE JAPANESE MARKET: PRODUCTION CONSUMPTION AND IMPORTS

Crustaceans, especially prawns, are an important part of Japanese diet. Its consumption and exchange has a lot of traditional significance; it augurs longevity and goodwill. Until 1962 Japan was self sufficient in meeting her own requirements but the situation changed drastically afterwards. Population growth, rising standard of living, movement of the population into urban areas are some of the reasons attributed for the growth in domestic consumption (See Rackowe et al. 1983, Peckham et al. 1974). Total consumption increased from 60,000 tonnes in 1959 to 2,00,000 tonnes in 1980 - an increase by over three times. Production on the other hand stagnated between 60,000 tonnes and 58,000 tonnes in the same period (Figure 2). Japan therefore had to enter the import market for filling the hiatus between production and consumption.

In the initial years(1962-1968) imports were largely a result of a drastic fall in domestic production. But in the subsequent years it was a combination of this and a growth in consumption in total discordance with domestic supply. The general stagnation and fall in production were largely due to the full exploitation of domestic prawn grounds, loss of access to international waters and rising costs of production after the oil

Japan Shrimp Production and Imports (1959-1980)



Source: Same as Figure I

crisis of 1972. Landings by the distant water fleet were almost halved between 1973 and 1982 as the access to fishing grounds was limited by the EEZ regime. She harvested 44% of her marine fisheries catch within 200 miles (the EEZ limit) from the coasts of foreign states in 1973, less than 30% in 1977 and less than 20% in 1980 (OECD, 1980). Low landings were compounded by fuel costs which rose 300% in 1975-80(ibid.)

Table 5 gives the source of Japanese imports between 1963 and 1981.

Table 5: Japanese Imports of Shrimp by Country of Origin
(1000 Metric tonnes product weight)

Country of origin	Year						
	1963	1966	1969	1972	1975	1978	1981
India	--	1.0	4.9	12.8	29.9	31.6	40.0
Indonesia	-	-	---	13.8	21.1	28.3	24.2
China	2.7	11.8	4.1	3.5	9.8	9.2	15.0
Thailand	0.5	3.7	6.4	7.5	8.8	8.4	10.3
Australia	0.4	0.7	3.4	4.1	4.7	7.5	11.5
Mexico	3.5	4.9	5.5	5.4	4.1	7.9	3.1
Others	4.6	14.1	24.6	41.0	35.3	51.1	57.6
Total	11.7	36.2	48.5	88.1	113.7	144.0	161.7

Sources: 1. Peckham, C.J. et al 1974
2. Rackowe, R et.al. 1983

With the exception of the year 1963, right through the period 1963-1981 Asia accounted for the bulk of Japanese import of prawns.

More than 80% of her imports in the seventies were from this region. The important sources of supply outside are Australia and Mexico. India is the biggest supplier accounting for 20% of the imports during 1963-81 followed by Indonesia(14%). In 1981 India accounted for 25% of total imports followed by Indonesia (15%). Japan imports from almost all the important producers in Asia and seems to have made the best out of the limited supply situation in the world prawn market.

COMPARISON OF JAPANESE AND AMERICAN MARKETS

If we compare the imports of Japan with that of the U.S., we can see that Japan increased her imports by fourteen times between 1963 and 1981 (From 11,700 tonnes to 161,700 tonnes product weight) whereas American imports hardly doubled (from 69,000 to 101,000 tonnes) in the same period. For example, the per capita consumption of prawns in Japan increased from 1 Kg., in 1966 to 1.62 Kg in 1981 whereas that of the U S increased only marginally from 0.55 Kg in 1966 to 0.65 Kg in 1981 (see Figure 3).

MARKET STRUCTURE OF USA

About 85% of the shrimp consumed is eaten in restaurants and institutions. The shrimp is identified by the country of origin and is referred by the industry in relation to its colour; whether white, brown or pink. From region to region the preferred colour is different.

PERCAPITA CONSUMPTION OF SHRIMP IN

JAPAN & USA (1960-1981), in kg.

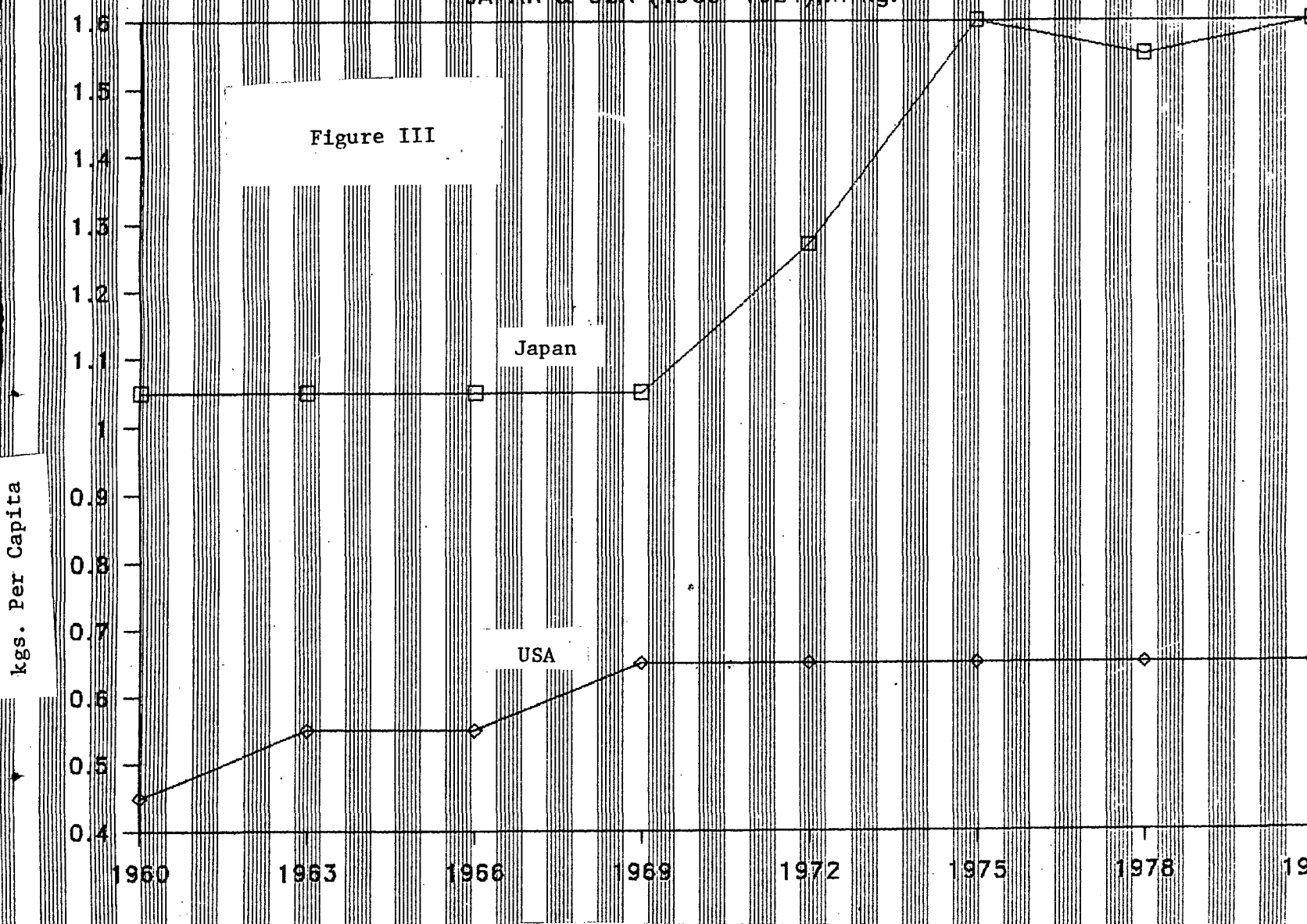


Figure III

Japan

USA

kgs. Per Capita

Source: Same as Figure I

All the shrimp products enter the United States duty free. The market is composed of several forms of products, of which the most important is headless shell on shrimp.

Both the domestic production and imported prawns move through the same distribution system. The imports usually follow one of these procedures:

- "(a) Outright purchase: the full amount of the negotiated price is paid by means of a letter of credit...
- (b) Consignment: an advance is made to the producer by means of a letter of credit of 60-80% of the estimated value of the product at the time of shipment; the remainder of the price is remitted to the producer after the product has been sold in the USA; direct costs together with the agents commission, are deducted from the proceeds.
- (c) Agency: the sale is made by an agent in USA to a customer who opens a letter of credit in favour of the producer; the agent's commission may be paid by either the buyer or the seller" (Rackowe, R. 1983)

The importer sells shrimp directly or through market brokers to processors, restaurants and super market chains, wholesalers, traders and distributors (ibid.)

Market Structure of Japan

An important structural characteristic of the Japanese market

is that in spite of an overall decline in fish consumption - chiefly among medium and low priced species - prawns have shown very strong growth (ibid.). About 75% of it is eaten away from home. Like the US market colour or other common name is important and the shrimp is further identified by the country of origin.

Importers usually buy outright through their agents in the producing countries and they are usually trading companies.^{5/} Though there is no import quota on frozen shrimp since 1961, there is an import duty of 3% of the CIF value.

Prices

Broadly speaking, prices in both the US and Japanese markets are determined by international supply and demand. It is a market situation with two important buyers and numerous sellers with prices largely dictated by the importing countries.^{6/} But however, this advantage of the importing countries is to some extent offset by the intense competition among themselves to secure the limited resource.

-
5. Many of the fishing companies have begun to act as trading companies since the establishment of Exclusive Economic Zones by many nations, importing and exporting sea-food not produced by their own fleets and plants.
 6. It is especially significant in a situation where the final consumer is unaware of the origin of supply because the prawns are mostly eaten in restaurants and even if he buys from a retail store, the prawns are not packed under the brand name of the exporter. This is a characteristic of international trade, when food items are traded between developing and developed countries with the former as the supplier and the latter as the buyer.

In both the markets prices of prawns depend upon the size of the individual prawn, the species, quality and source of supply (ibid). Larger the size, higher the price it commands: "the same species and size of shrimp, when packed in two different countries, may command quite different prices in the market, and reflect the producer's reputation for good weight and quality: accurate counts and uniformity of size and colour" (ibid.) However, according to an OECD study "prices may vary upto 295% depending on the count, but upto only 15% according to origin and by upto 41% by species"(OECD, 1985).

Table 6 will give some idea about differential prices for prawns from different sources.

The only comparable prices in table 6 are that of white and brown. Among India, Indonesia and Thailand India get the lowest price for headless shell-on white and Thailand the highest price. The difference between the price received by India and Thailand is about 20%. For Headless Shell-on Brown Mexico gets the highest price about 40% higher than India. Thus in both the categories India receives the lowest price in the Japanese market.^{7/}

As Rackowe remarks, prices are also affected by intense competition for world supplies; increased inflation and instability in world economy, fluctuations in the relative values of various currencies particularly of dollar and yen, and fluctuations in the cost of money. Another important

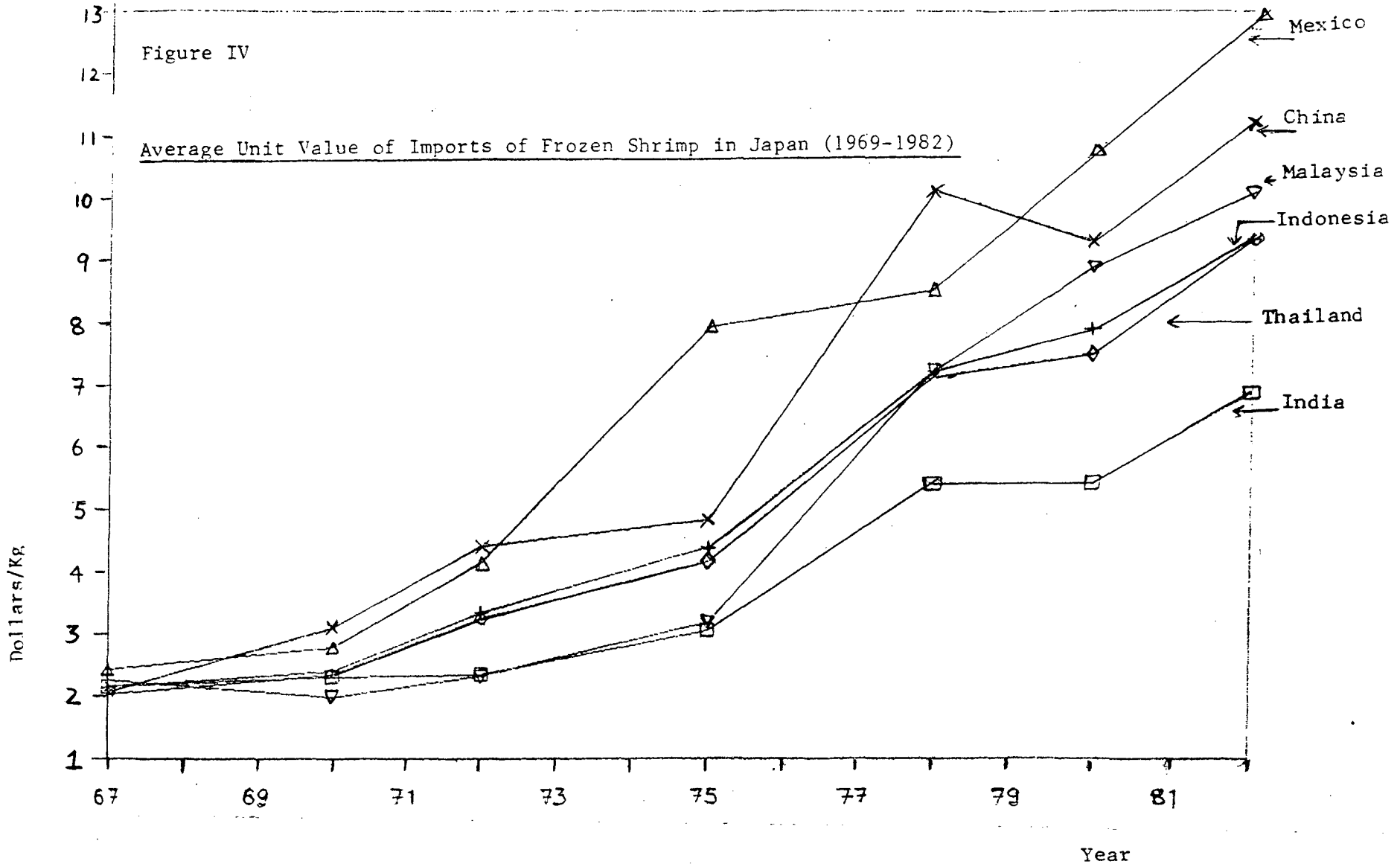
7. The reasons for this are discussed later in this Appendix.

Table 6: Japan - Wholesale Shrimp Prices January 1983
(Japanese yen per kg)

Product	Count											
	8/12	13/15	16/20	21/25	26/30	31/35	31/40	36/40	41/50	51/60	61/70	71/90
Headless Shell-on												
INDIA												
White	4050	4050	3850	3800	3500	2950	-	2650	2100	1650	1350	1200
Black tiger	3750	3750	3750	3700	3350	2750	-	2400	2000	1500	1250	1000
Brown	-	-	3350	3300	2900	2400	-	2200	2100	1600	1300	1000
INDONESIA												
White	4333	4333	4222	3889	3389	-	2611	-	2111	1722	1444	1167
Banana	4650	4650	4650	4550	4050	-	3550	-	3050	2550	-	-
Pink	--	--	3667	3500	3056	--	2056	-	2000	1611	1389	1056
CHINA												
White	-	-	4200	4100	-	-	-	-	-	-	-	-
THAILAND												
White	4167	4167	4111	3833	3278	-	2556	-	2111	-	-	-
MEXICO												
Brown	-	-	4050	4050	4100	-	3650	-	3000	-	-	-
Head-On	U-8	8-12	13-15	16-20	21--25							
INDONESIA												
Tiger(Sea frozen)	3000	3050	3250	3450	3450							
Peeled Undeveined (PUD)	80-120	100-200	200-300	300-500	Broken							
INDIA												
	1500	1175	925	675	500							

Exchange rate: US\$1.00 = Yen 238.13

Source : Rackowe et al 1983



factor is the colour of the shrimp after it has been cooked and peeled. In Japan they prefer a bright red colour whereas in the US white shrimp commands the highest price, brown the lowest and pink the medium. (Rackowe, R. 1983)

Table 7 and figure 4 give the average unit value realisation of prawns from different producing countries in the period from 1967 to 1982 into the Japanese market.

Table 7: Average Unit Value of Imports in Japan:
Frozen Shrimp (dollars/kg)

Name of the country	Year						
	1967	1970	1972	1975	1978	1980	1982
India	2.15	2.30	2.34	3.05	5.42	5.43	6.88
Indonesia	2.13	2.39	3.34	4.38	7.22	7.90	9.36
Thailand	2.03	2.34	3.23	4.16	7.13	7.52	9.33
Mexico	2.43	2.77	4.13	7.94	8.53	10.77	12.81
China	2.06	3.09	4.40	4.83	10.15	9.31	11.21
Malaysia	2.25	1.98	2.31	3.17	7.23	8.89	10.08

Source: Compiled from MPEDA 1974 and MPEDA 1984b

From table 7 and figure 4 we can see that until 1972 all the important suppliers were realising almost the same unit value from the Japanese market. But from 1972 different suppliers were realising divergent values with Mexico the highest, followed by China. India realised the lowest value about 50% lower than that of Mexico.

One of the reasons attributed for this phenomenon is that the bulk of India's exports consist of small sized prawns which fetch a lower price in both the markets. Another reason usually given is that the Indian prawn is less fresh vis a vis Thai, Indonesian, Mexican and Chinese shrimp because of lack of facilities for on board freezing, and poor handling till the product reaches the processing plant. Appearance of the prawn is also often cited as a reason for lower prices; that Indian prawns generally do not have a uniform appearance. Non-uniform size, irregularities in count, drippage are other incidental reasons attributed (from discussions with the officials of The Marine Products Export Development Authority, Cochin).

Geographical proximity and better freezing techniques which ensure a better quality are reasons attributed for payment of higher prices to the South-East Asian producers. The involvement of Japanese fishing companies in Joint ventures and other forms of financial and technical assistance especially with Indonesia and Thailand is another reason attributed for higher prices realised by prawns exported from these countries. But these arguments do not convincingly enable us to understand the reasons behind the realisation of the best prices in the Japanese market by countries like Mexico and China.

Again, from comparable data available for a group of species originating from India and the Gulf of Mexico - of peeled meat blocks

ranging from 91/100 count per lb. to 300-500 to the US market it can be observed that the Indian prawn realises a price 30% less than that of Gulf of Mexico (See Rackome et al p.19).

Thus we see that Indian prawns receive the lowest price vis-a-vis other important producers. This is perhaps mainly because of the reasons mentioned on the previous page. Another contributory factor to this phenomenon could be the structure of the export market in India. There are numerous small scale exporters and this leads to a monopsonistic situation where the sellers have very limited bargaining power which consequently would be reflected in price. India is perhaps the worst affected vis-a-vis other producers in this respect. Nothing conclusively can be said about this, because we do not have detailed information on the structure of export markets elsewhere in the third-world.

CONCLUSION

The reasons behind the emergence of USA and Japan as the main buyers of Indian prawns are straight forward: stagnant production in the context of rising consumption and inability of older sources to meet the gap. As we have seen India was able to meet this shortfall through a diversion of supply from prawn manure business and dry prawn trade till the mid 60s and upto the mid seventies from expanding production. Thereafter while the limits of world wide exploitation of prawn resource seem to have been reached, demand in the developed world has continued to increase and prices have shot up.

It is surprising that the developing country exporters have not tried to exploit the situation of acute demand more fully to their advantage. The clear demarcation between developing and developed countries as exporters importers respectively should have facilitated some cartel formation among the exporters. All the more so when India, Mexico, Indonesia, China and Thailand control 50% of the world exports and expansion of production from other sources or diversion from other markets is not an easy possibility. Part of the answer may be in the fact that some of the firms engaged in exports from Indonesia, Mexico and Thailand are subsidiaries of the US and Japanese firms. But that is only part of the answer for the governments of these exporting countries could well have intervened to secure higher prices.

It is even more surprising that the largest exporters receive the lowest price. That India remains a price taker can only be partly attributed to smaller sizes and quality. South-east Asian countries may harvest the more preferable species but these are exported by multinational firms who would normally be expected to underinvoice exports. That inspite of these factors Indian firms receive a lower price only throws into sharper relief their inability to assert themselves in the international market.

The international supply market for frozen prawns is no doubt monopsonistic. But when the few importing countries are ~~not above~~ following aggressive buying practices to corner a limited resource, it should be that much simpler for India along with other developing countries to manipulate one buyer against the other. Their failure to do this only illustrates the lack of co-operation even in the most obvious and practicable market situation

APPENDIX II

PROCUREMENT OF PRAWNS BY THE EXPORT FIRMS

For meeting their export requirement, all the firms - including fully integrated ones - are dependent on the domestic market in some way or the other.^{1/} They buy directly from fishermen, peeling contractors or through agents.

As per an MPEDA study (1982) until the second half of the 1960's export firms bought the unprocessed prawn either directly from the fishermen or agents who procured it from the fishermen. (As per a study done by Indian Institute of Foreign Trade (1970) about 96% of the procurement was from agents and 4% from fishermen). The primary processing (usually undertaken by female labour) would be done in the peeling sheds either by factory labour or through a contractual arrangement with private parties outside. With the advent of labour welfare measures like Provident Fund, Employees State Insurance etc. coupled with a narrowing margin of profit, from the late 1960's onwards exporters slowly started delinking primary processing from their overall processing activities.^{2/} In this situation some of the

1. Even fully integrated units have to operate in the open market because of the unpredictability attached to fishing operation. The total catch of owned fleet is usually much less than the export order of the firm which makes it essential to buy from the procurement market.
2. Primary processing is the most labour intensive part of processing activities. Various processing methods are discussed later in this appendix.

suppliers of whole prawns started setting up peeling sheds and became suppliers of peeled prawns.

At present there are three types of suppliers to the export firms.

- (a) Integrated suppliers who have their own boats and preprocessing facilities.
- (b) Suppliers who buy from the fishermen, peel and supply and,
- (c) Suppliers who buy from the peeling sheds and supply to the exporting firm.

Among these categories (a) is the smallest and (c) the largest.^{3/}

As far as quality of the peeled prawn is concerned (c) supplies the most inferior whereas (a) the best. The major source of raw material - pre-processed prawns - is however (c) (according to Anwar Sait of Abad Fisheries, Cochin).

Large exporters have sort of a patron-client relationship with the suppliers. They provide advances to partake in auctions (prawns at the landing centres are sold through auctions), provide incentives like meeting transport cost of the pre-processed prawns from the peeling sheds to the freezing plant of the firm, higher payment over and above the stipulated price etc. (usually suppliers are informed about a fortnight in advance the price their prawn will be paid by the export firm) to ensure regular supply. Incentives depend a lot on the quantity and quality. Better the quality

3. We do not know the exact share of these categories. This is based on qualitative information we gathered from some leading exporters in Cochin and Alleppey.

and larger the quantity, better the incentive. It ranges from Rs.0.50 to Re.1 per kg. irrespective of the prevailing price (in 1983).

But among large exporters there are some who prefer an outright settlement without paying any advances/incentives etc. But they take care to pay the best possible price very promptly.

Because of intense competition among the large firms, there are instances of breach of trust between the suppliers and the firms. As per an export firm from Quilon, they have filed one hundred and twenty cases of breach of trust against suppliers of prawns who absconded with the given advances.

According to some of the agents whom we met, they are happy to deal with larger firms for the above reasons and also for the stability of the whole arrangement in a long term sense, rather than smaller firms, who do not have a foot hold in the international market.

Thus, through the institution of agents larger firms procure prawns of the desired size and quality and whatever cannot be met from domestic production is replenished by procuring from the neighbouring states of Tamil Nadu and Karnataka.

Processing Methods

Three types of frozen prawns are basically exported from India. They are (i) the headless shell on type; (ii) peeled and deveined and (iii) the cooked frozen types.

Pre-processing: The raw-material, fresh or iced is originally washed in chlorinated water before removal of head and shell in the primary processing centres known as peeling sheds. The beheaded or peeled and deveined prawns are then washed thoroughly in small quantities in several changes of water after which they are iced and kept for onward transportation to processing factories.

Freezing: The prepared raw material is brought in the factories for grading and freezing. The material is graded according to size and packed separately for different types of pack. The graded material is packed in 5 lb./2kg. quantities in trays or in cartons, then taken to the freezers for quick freezing at -40°C . Freezing time in the plate freezers vary from 1 to 3 hrs. (See IIFT. 1970 Vol.IIIA).

APPENDIX III

PROFILE OF EXPORT FIRMS OF FROZEN PRAWNS

1. ABAD FISHERIES, COCHIN

The firm was founded in 1905 for undertaking dry prawn exports to Burma and erstwhile Ceylon (Sri Lanka). The founder was originally a horse trader in the Kutch region of Gujarat. In 1960 they stopped exporting dry prawn and shifted to canning of prawns and subsequently to the export of frozen prawn from 1963.

Originally export of frozen prawn was only to the U.S. market but from late 1960's with the development of the Japanese market and they European markets/further diversified. At present in addition to these markets, exports are also undertaken to the Arabian gulf countries.

The composition of exports of this firm is as follows:

Market	Share in total exports (percentage)	
	Quantity	Value
USA	50	40
Japan	40	55
Europe and the Gulf	10	5

it
Originally/had an imported freezing plant from USA of capacity 2T/day. The present capacity for freezing is 20T/day and storage 120 T/day. Capacity expansion was undertaken with the idea of modernisation and they are intending to move into the more sophisticated Integrated Quick Freezing Technology (in 1984).

The firm maintains a pure market relationship with the suppliers of raw material and settles all deals very promptly without causing any delay. It usually informs ^{the} supplier a fortnight in advance about the price the firm will pay in that fortnight.

According to one of the Managing Directors of the firm, Mr. Anwar Sait (who is a graduate in fisheries technology), the net profit margin is about 2 to 5 per cent at present (1984), and it used to be in the range of 15 to 20 per cent in the 1960's. He attributes fall in profit margin to increasing cost of production (The firm was totally unwilling to part with cost of production data).

The firm has very cordial relations with their buyers especially with the U.S. importers. It enjoys tremendous credibility. With the result, it gets a good deal from them.

The firm is solely managed by the family and is a proprietary concern. It has not employed any professionals from outside. It has started diversifying its business activities - is involved in hotel industry.

2. AMA SEAFOOD, COCHIN

The main partner of this partnership concern Mr. Ibrahim was an exporter of dry prawns till he shifted to frozen prawn/frozen froglegs business in 1968. From early 1970's the firm started packing for ITC Ltd.

The firm does not own any processing facilities. It leases in facilities from the freezing plant owned by Kerala Fisheries Corporation in Cochin. Throughout the period 1971 to 1978 the year the firm got de-registered it paid a rent of Rs.500/tonne to KFC irrespective of whether

the product is prawn or froglegs. When the quantity procured would exceed the stipulated capacity hired from KFC, the firm used to lease in facilities from the private sector plant also.

ITC Ltd. would advance interest free loans to procure and process the raw material. Normally no premium was paid. According to Mr. Ibrahim, the only reason for packing for ITC was the prospects of getting interest free loans which would meet his overall working capital requirement. This was particularly important for him because the banks refused to advance him ~~to~~ pre-shipment credit (further enquiries revealed that this firm was suspected to be embezzling banks and that the firm allegedly smuggled cannabis and snakes kin under the product name prawns!)

In 1978 ITC Ltd. withdrew from advancing credit to the firm. With the result the firm closed down.

3. KERALA FOODPACKERS, ALLEPPEY

This is the first firm in India to export canned prawns. It was established in 1961. It is a proprietary concern and the ~~properties~~^{proprietor} Mr. N.J. Chacko is a chemical engineer from John Hopkins University, United States. His family is traditionally involved in the export of coir products.

The firm diversified into frozen prawn business from 1964 onwards. It was originally fully integrated with fishing boats, processing plants,

refrigerated vans etc. but is no more involved in production.

The freezing plant was imported from the U.S. The freezing capacity is 2.5 T/day and storage 150 T/day. The total capital investment at current prices is Rs.35 lakhs, according to Mr.N.J. Chacko.

Until the early 1970's the firm had their own fixed suppliers. With these suppliers the firm had a patron client relationship. At present it is pure market relationship that prevails.

Frozen prawn is exported only to two markets viz., Japan and the U.S.

Though the firm stopped canning prawns from the late 1960's it still continues with canning of sardines, mullets, etc. for the domestic market. It is slowly winding up its involvement in the frozen prawn exports (Mr. Chacko says that it is no more profitable!). It is in a big way diversified now into canning of coconut oil.

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