1.1 INTRODUCTION

In India, the marine fishing industry occupies an important place in the organized sector. As a source of food, fisheries stand almost at par with agriculture and animal husbandry. Fisheries have a large potential to fulfill the basic objectives of production-cum full employment as envisaged in the development plans of India. Fisheries provide employment to millions of people directly and indirectly. In a direct way it provides employment through the allied activities like net making, boot carving, fish processing, fish transportation, ice and salt making and the like.

Marine environment in India has a great potential with a vast coastline of 7500 kms, which is the 6\textsuperscript{th} largest in the world. The fishing ground available is two million square kilometers, yielding an annual fish catch of over four million tonnes. It is estimated that marine products export will be one of the top five foreign exchange earners for the country. India is one among the seven largest fish producing countries in the world. Indian marine fishing sector plays a significant role in the economy of the country through employment generation, foreign exchange earning and above all by providing cheap protein-rich food for the people\textsuperscript{1}. The importance of fisheries in the economy of India can be better understood in the light of the following four important aspects:


1. Source of cheap animal protein
2. Generator of direct and indirect employment
3. Source of income and
4. Earner of valuable foreign exchange.

The fishing industry is one of the oldest industries in India and it has a great scope for rapid improvement in the future. But in many parts of India, the fishing industry is still in the primitive stage. The changes which take place in the methods of fishing and in the handling of fish are not modern enough to cope up with the increased need for fish in India and abroad. Despite the earnest efforts made by the Central and State Governments to improve the condition of the fishing industry, the progress made is not very impressive when compared with the progress achieved by other countries like Japan, Chile, Russia, China, the United States of America, Canada, the United Kingdom and Norway.

The total annual catch of fish in India is over two and a quarter million metric tonnes. This is not a very impressive figure when compared to the total annual world catch of over 50 million metric tonnes. Still India holds the seventh rank among the fishing nations of the world.²

---
Fish is converted into fish meal in the form of valuable protein food for children, food for cattle and poultry and manure for plants. Fish meal is highly valuable as it has protein-content stuff and amino acid. The essential amino acid is present to the maximum in fish meal and the vital ones-Rysine, Methonine and Erystine are also found in fish meal.

Fishermen in India are generally poor. The caste system which had its influence till now, has retarded the fishing community. The profession did not enjoy similar status as existed in other industries. Fishing is a hazardous occupation and the fishermen have developed their natural skills to face the risks and hazards while at sea.

For over half a century and till now dried or cured fish, prawn pulp and related products have been exported to the neighbouring countries. The products processed for export were not hygienically prepared and the revenue from export was not substantial. The demand in the foreign markets varied sporadically and no efforts were made to identify new markets. An impetus to the sea food export came with the demand for shrimps and lobsters in the U.S.A in the post independence era.

The very high market value of shrimps in the U.S.A. attracted businessmen with entrepreneurship and capital. The first consignment of shrimps to the U.S.A.
was exported in 1953. As early in 1960’s freezing and canning factories were established in India in good numbers for processing of shrimps. Now several countries of the world such as Japan, the USA, the U.K., Germany, France, Belgium, Australia, Sweden, Denmark, Canada, Switzerland, Singapore and Spain are in the export basket of India.

Since the inception of planning, special attention has been paid to the development of fishing and allied industries as this sector is eminently suited to assist a large number of backward and economically weaker sections of the rural community. It provides an opportunity to bridge the gap between the availability and requirement of high quality protein subsidiary food for consumption at reasonable prices. This industry has the export-potential as well.

The total world catch of marine fish has increased 2.5 times over the average catches of the fifties. The total catch from the Indian Ocean shows a slight increase during this period, though this increase is negligible in comparison with the increase in the yield from the Pacific and the Atlantic Oceans.³

The commercial catches of fishes from Indian Ocean consist of both pelagic and demersal varieties. The trend of the yield of fishes from the Indian Ocean has not kept pace with the increased trend in the world catches. It is generally reported that many off shore stocks are not exploited and many inshore stocks are

under-utilized. India is a leading country in marine fish culture. The total sea food catch in India is about 9,00,000 metric tonnes per annum, and nearly 70 per cent is from the West coast of India.

The export of sea food is dominated by frozen canned and dried shrimp, frozen lobster tails, frozen freg legs, sharking, fish maus and canned dried fish. There are two aspects in searching for fish. The first is the location of the general area of potential productivity and the second is the specific location of fish. The coast fishing operation of India by traditional craft gear extends to a distance of about eight to ten kms from the coast and the modern mechanized boat stretches as far as 15 to 20 kms from the coast. The first aspect is research oriented and the second is equipment oriented. The main tools for catching fish is the net and gear. Indian fishing and sea food industry is on the threshold of a very high expansion. The development project envisages the utilization of the latest modern technology through active collaboration with major International fishing firms. Up to-date facilities for canning, freezing, mechanisation of fishing boat, improving the methods of handling, preservation and modernization of fishing gears are offered at the fishing centres along the coastal lines at the behest of Marine Product Development Authority, Cochin.

Cash compensatory support is provided as an incentive to exporters. But the fishermen by and large are affected by the erratic fluctuation in catches.
Besides the fluctuations in the income of the fishermen, the rising prices of raw material and the narrowing down of the margin between the cost of production and the unit value returns are posing serious problems to the stability of fish processing and the export industry.

Fisheries and seafood exports have a long history in India and form an integral part of the country’s coastal economy. The historical development of India’s seafood exports can be divided into two phases. In the first phase before 1986, the Indian seafood exports were totally based on the supplies from the marine resources only. It had become necessary to go in for deep sea fishing but the country had neither the experience nor the infrastructure for the task at the time.

Nearly seventy per cent of the sea food comes from Asia where India today is one of the biggest seafood suppliers (after China and Thailand) with a quantity of nearly 4,60,000 tonnes. India’s sea food export is worth US$ 1.3 billion (Rs. 6,900 crores) and it contributes 2.6 per cent of total export earnings.

The Indian seafood industry mostly comprises small scale industries (SSI) which are located in major maritime states including Tamil Nadu. Among the districts in Tamil Nadu, Ramanathapuram District has more sea food industries.

Government of India’s new fishery policy emphasizing the exploitation of country’s deep sea resources by deep sea fishing during the mid 1980’s was a
turning point on seafood exports as many units were set up in the East Coast of the country.  

Termed as blue revolution, the aquaculture industry developed very rapidly in India and the state of Andra Pradesh became the hub for all aquaculture activities as brakish waters in the deltas of rivers Godavari and Krishna were found to be more congenial for the purpose.

During early and mid 1990’s more than 100 new export units were started and a majority of them were and partnership firms in the country they were of fully integrated in nature with large investments. Today India has more than 350 registered seafood exporters and the industry has sizable infusion of capital, public offers, institutional funds besides the monetary support from the Governments in the form of capital subsidies for installation of process plants and equipments.

The seafood export, which had a consistent growth in terms of both volume and value, remained as a potential industry. However, late in 1980’s it started having serious hiccups.

In the post 1999, the industry began making continuous losses with no sign of improvement. Even well established companies were not free from this malady.

Japan, United States and European Union countries account for three fourth of India’s exports in terms of value. These countries are well aware that like any other export oriented industry in India, seafood exports also enjoy several concessions and benefits such as capital grant and subsidy for commissioning of plant and equipments, import duty exemptions by Export Promotion Council (EPC) schemes, subsidized interest rates for the loans linked to exports, imports entitlement duty credits by DEPB (Duty Entitlement Pass Book) schemes and tax concessions for the profits. Though these concessions are granted for infrastructure development India, they are always treated as cost subsidy to products by developed countries. They have a notion that cheapness in value of these products will result in dumping in their markets.

In the post WTO regime, as imports are liberalized, the developed countries have started enforcing several trade and non-trade barriers for the protection of their domestic industries against these low priced imports.

The trade barriers are in the form of tariff sanctions and anti-dumping measures for the general safeguard. The non-trade barriers are mostly in the form of various rigid conditions on quality, sanitary standards, restrictions on various issues of ecological and environmental impacts.
These non-trade barriers required for the imported food stuffs are more particularly aimed at the developing countries as there is an unfounded belief among the developed nations that developing countries suffer from serious quality problems in preservation and processing of food products.

The European Union’s (EU) blanket ban on Indian seafood on the grounds of quality and poor sanitary standards in the Indian factories during 1997 had put the Indian exporters in a quandary as it required large capital investments to upgrade the factories conforming to EU norms to get individual EU approval.

Similar measures by U.S.A under the United States Food and Drug Administration (USFDA) regulations and the contrast product processing requirements by US markets had pushed the industry into deep investment trap with no links to productivity or profitability. The burden of these trade barriers are always heavy on any small scale exporting community in any developing country.

Amidst the increasing production cost and the totally unorganized raw material supply, adverse price fluctuations, increasing global supply and threats of trade barriers put the Indian seafood exporters face severe financial crunch eroding their networks.
Increasing Trend in Marine Foods Developing Countries Export

Marine food eaters are gradually increasing consumption and in general, total marine export from all over the world is increasing day by day. So, marine food exports are rising up when compared with other items of export from India. India earns $3300 crores income from the marine export in which prawn export alone fetches $1000 crores. India exports 50 per cent of the total world prawn export.  

Since, marine food contains abundant protein, people all over the world accord importance to the partaking of sea food. A survey reveals that a man eats 1.43 kg marine food per week. As per the survey conducted in 1997, Japanese consume more marine food in the world. They consume 2.6 kg of marine food per week in a survey conducted in the year 1985. Chinese intake of marine food had been 1.86 per week in the year 1997. European Union and South Asians are consuming 2.3 kg and 1.3 kg of marine foods per week respectively.

1.2 STATEMENT OF THE PROBLEM

The marine food industry faces a plethora of problems. A study on the problems being faced by the Indian seafood exporters has been attempted in this research project.

India is rich in raw material resources and the exports are in priority for supports from the Government. So far, no significant study had been made linking the entire marine operations with attendant practical problems and the ground realities of the trade. Marine food industry is one among the industries which fetches substantial foreign exchange to our country. A study relating to export of marine food, its procedures and the problems normally faced, is attempted in this research study. It was also found that there was no individual or collective clear cut strategy in marketing and export of seafood products.

Researches in fisheries have not drawn the attention of many social scientists and even today it remains one of the least explored areas. The fishery scientists and institutions like CMFRI (Central Marine Fisheries Research Institute) at Cochin are mostly concerned with the biological aspects of marine life only. Marketing plan has an important role to play in any business activity. Fish, being a perishable commodity, has a unique pattern of distribution. Earlier, fish marketing meant the buying and selling of fish at the landing centres or nearby areas. On the other hand, an efficient fish marketing system and export procedures and problems developed on modern lines would bring rapid quality betterment in the functions of production of fish and consumption needs of the society. Organization of modern marketing will ensure better quality of fish, proper grading weighing and fair competition in pricing.  

Exporting of fish has many unique problems like uncertainties of production, high perishability, assembling in many demand patterns, wide fluctuations in price and transportation in specialized vehicles. All these create great difficulty in exporting.

In Ramanathapuram District 20,000 fishermen at Rameswaram and 40,000 in other parts of the district depend on fisheries for their livelihood.

Among other things, a well developed marketing system and simple practice of exporting is essential for the better development of marine industry. This study aims to go into the various aspects of the problems and practices of the fishing industry in Ramanathapuram District.

Therefore, it becomes necessary to undertake such a study to provide possible and essential perspective within which the Indian seafood export industry particularly in Ramanathapuram District can set out its strategy for the effective functioning in future.

### 1.3 OBJECTIVES OF THE STUDY

Major objectives of the present study are:

- To study the profile of Ramanathapuram District conducive to marine fish export.
- To examine the marine food export practices and problems.
To evaluate the export performance of marine products export during pre and post-liberalisation periods.

To analyse the practices and problems of wholesalers in marine trade

To investigate the practices and problems of exporters of marine products.

To offer suitable suggestions for improvement.

1.4 SCOPE OF THE STUDY

Tamil Nadu has a lengthiest coastal area of which Ramanathapuram District occupies one fourth of the area. Most of the coastal areas in this district are geographically located marine haunts facilitating natural fishing activities. A study relating to the marine fishing export of Ramanathapuram District is expected to comprehend the most crucial problems associated with the industry as a whole. The thesis covers all the problems faced by the fishermen, wholesalers and exporters of seafood industry in the district particularly and as a whole in India. The study aims to assess the prospects, potentials and vulnerable spots of marine fishing industry.

1.5 OPERATIONAL DEFINITION OF THE CONCEPTS

1.5.1 Marine products

The marine product refers to the sea water catch. But in the case of export of marine products it refers to both sea products and inland fishes export from India. In this research, marine fish products are equally considered as sea fish products.

1.5.2 Fishermen
Fishermen may be defined as all persons engaging in the fishing catch other than the boat owner who engages on fishing in the absence of fishermen.

1.5.3 Wholesalers

A wholesaler is a businessman who specialises in performing wholesale activities. The word wholesaler means to market goods in relatively large quantities.

1.5.4 Exporters

The exporters are manufacture exporters and merchant exporters. The manufacture exporters are with their owned or leased plants but the merchant exporters do not have process plants of their own. Both of them export the marine products to foreign markets.

1.5.5 Fishing Technology

The crafts are used for fishing in the study area. The crafts may be categorized into traditional and modern crafts. Traditional crafts are non-motorized and catamarans, whereas modern crafts are motorized crafts.

1.5.6 Fisher folk

The fisher folk refer both fishermen and fisher women in the fishing activities.

1.5.7 Marine Industry
Marine industry includes only the activities of fishing in sea and methods of fishing, processing, transporting and all other activities relating to sea fish.

1.5.8 Peak Season

Peak season refers to June – August and November – December every year.

1.5.9 Lean Season

Lean season refers to January – March and September to October every year.

1.6 METHODOLOGY

1.6.1 Sampling Design

In the study area, sampling respondents are wholesalers and exporters. There are 206 wholesalers as per the Register of Wholesalers Association. It is mandatory for every wholesaler to register with the Association. The wholesalers register with the Association functioning at Rameswaram as it’s head office. Rameswaram is the biggest marine catch landing centre in the district. The wholesalers and exporters function at the five major landing centres in the district namely Rameswaram, Pamban, Mandapam, Thirupulani and Kilakarai. For the exporters there is only one head office at Rameswaram. As per the Seafood Exporters Association of India (SEAI) records, at Rameswaram there are 22 exporters. All exporters functioning in the study area have registered with SEAI and with the Marine Product Export Development Authority (MPEDA) at Cochin.
Since the number of wholesalers and exporters are small, the researcher has taken all the wholesalers and exporters as respondents. The number of wholesalers in the study area has been rounded off to 200 for calculation purposes. The exporters number has been taken as such. These wholesalers and exporters are chosen as sample respondents.

1.6.2 Collection of Data

The present study is based on field survey. It involves collection of data from both primary and secondary sources.

Primary data were collected from sample respondents. For this purpose two separate comprehensive interview schedules were prepared; one for the wholesaler and the other for the exporters. The interview schedules were pretested with few wholesalers and exporters in each category. They were revised, reframed in the light of the experience and insights gained after the conduct of pretesting. Then the data were collected by census method.

The secondary data were collected from the office of the Marine Products Export Development Authority, Cochin, Tamil Nadu Fisheries Department, Chennai, Wholesalers Association, Rameswaram, Exporters Association, Rameswaram, District Collectorate, Rameswaram, Mannar Bio-sphere Trust, Rameswaram, Centre for Development Studies, Thiruvananthapuram, Kannimara Library, Chennai, Journals, Magazines, Books, Web pages of various Government and Private Agencies and Reports of the Governments.
1.7 TOOLS OF ANALYSIS

For the purpose of analysis, statistical tools like averages, percentages, compound growth rate, curve fit equation, Coppock’s Instability Index, Likert’s Scaling Technique, Garrett’s Ranking technique, Factor Analysis and Chi-square Tests were put to use.

1.8 PERIOD OF THE STUDY

The secondary data relating to marine product exports were collected for 20 years period from 1986-87 to 2005-06. The survey was conducted from the month of February 2005 to January 2006.

1.9 LIMITATIONS OF THE STUDY

This study mainly focuses on the Ramanathapuram District only, though the export practice and problems are applicable to all exporters across the country. The study predominantly concentrates on the export practice and problems but not on marketing practices. As for the sources of data on the export of marine products, the MPEDA is the only available secondary source and this agency culls, the data source from the respective customs office in the ports. In the customs offices all the export made through the ports in a state are recorded. The data relating to the exports of marine products of Tamil Nadu provided by MPEDA are invariably over estimate than actuals. Further the data provided by the fishermen
may not be accurate always. There is no separate data for Ramanathapuram District with MPEDA. Therefore generalization of the findings of the study must be considered with due precaution.

1.10 CHAPTER SCHEME

This study has been presented in seven chapters.

The introduction, statement of the problem, scope of the study, objectives of the study, operational definition of the concepts, methodology, sampling design, tools of analysis, period of the study, limitations of the study and chapter scheme are presented in the first chapter.

The review of the literature, the location, and profile of the study area are discussed in the second chapter.

The third chapter examines the marine food export practices and problems as existent in the country and elsewhere.

The holistic perspective of Indian marine product exports, their growth, country-wise, item-wise and port-wise export are discussed in the fourth chapter.

The social aspects like age, educational qualification, nature of the family, experience and opinion about marine products purchase of wholesalers are dealt in the fifth chapter.
Sixth chapter examines the practices and problems faced by the exporters. It also records their opinion for their redressal.

The seventh chapter is a summation of findings. Suggestions are also offered for the improvement of marine products export.