CHAPTER VII

SUMMARY OF FINDINGS, CONCLUSIONS AND SUGGESTIONS

7.1 INTRODUCTION

Exports of marine products play a significant role in the Indian economy. Marine products happen to be the seventh largest earner of foreign exchange of the country. The exports of marine products from India have been steadily increasing over the years.

Among the thirteen maritime states of India, Tamilnadu and Kerala account for one fifth of the total fish production of the country during 1999-00. Also these two states together contribute about half of the exports of seafoods of the country. The value of exports of marine products from these two states is consistently increasing. During the last two decades, 1978-99, the exports of fish and fish preparations have increased commendably by 48 times in Tamilnadu and by 9 times in Kerala. More than two fifths of the fish exporters of the country are from Tamilnadu and Kerala. These exporters face a lot of problems. Therefore an attempt is made to analyse the problems and prospects of seafood exports from India with a special reference to Tamilnadu and Kerala. Further, the socio-economic conditions and occupational problems and prospects of both the intermediaries and fishermen are also covered in the study in order to provide an overall operational framework of the fish export trade in the study area.
In order to undertake this study on export trade of marine products, both primary and secondary data have been collected. The secondary data were obtained from various published and unpublished sources for the period from 1978 to 2000. The major sources of such data were MPEDA and CMFRI. Primary data were collected by conducting three sample surveys in respect of exporters, intermediaries and the fishermen and interview method was used to get the data. A total of 500 fishermen, 100 intermediaries and 20 exporters were contacted during the year 2000 while conducting the three sample surveys. Analysis of both primary and secondary data has led to various findings. A brief summary of the findings, the conclusions drawn therefrom and suggestions are presented in this chapter.

7.2 SUMMARY OF FINDINGS

RESOURCE POTENTIAL: There are two sources of fish catch namely, inland and marine. The resource potential of inland sector is more or less similar in the states of Tamilnadu and Kerala whereas the resource potential of marine sector is comparatively higher in Kerala (14 lakh tonnes) than that of in Tamilnadu (11 lakh tonnes).

ACTIVE FISHERMEN: Each of the two states, Tamilnadu and Kerala has more than 10 lakh fishermen. About one third of the total fishermen population in Tamilnadu
belongs to the active fishermen category whereas the proportion is only one-fifth in Kerala.

**Fishing Technology**. There are two types of fishing crafts used by the fishermen namely, traditional and modern. A very predominant proportion of fishermen of Tamilnadu (80%) and Kerala (90%) use the traditional type of fishing crafts. The traditional crafts include the motorised crafts, which are more prevalent in Kerala than in Tamilnadu. The modern craft users in Tamilnadu are more than double in number as compared to their counterparts in Kerala.

**Fishery Policy and Programmes**. The Governments of Tamilnadu and Kerala implement various welfare schemes for the development of the fishermen of their respective states. The important welfare programmes implemented in these states are financial assistance for motorisation and housing, Group Insurance scheme, scheme for marketing and fish processing, saving cum relief scheme, scheme for improving the infrastructure facilities in the fish landing centres and subsidy schemes for fresh water prawn hatchery.

Apart from the above schemes, the Government of Tamilnadu and Kerala provide some special schemes for the fishermen. The special schemes implemented in Tamilnadu are supplying navigational equipments to fishermen at a subsidised
price, diesel subsidy schemes for mechanised boats, kerosene subsidy schemes for motorised crafts and establishment of Meenavar Angadis.

Supplying kerosene at a subsidised price subject to 200 litres per motorised craft per week, sanitation scheme at 100 per cent grant and Theevajothi (scheme of electrification of houses) are some of the special schemes implemented by the Government of Kerala.

**FISH PRODUCTION:** Tamilnadu and Kerala are the important maritime states of the country. They account for one fifth of total fish production of the country. The overall performance of fish production in both the states shows a fluctuating trend for the last two decades. The fish production from marine sector in Tamilnadu is better than that from the inland sector. The fish production in marine sector increased by 73 per cent whereas inland fisheries decreased by 25 per cent during 1978-2000. On the contrary, fish production from Kerala has increased in both the sectors (in marine by 62 per cent and in inland sector by 196 per cent) during the above said period.

The overall increase in marine fish production in Tamilnadu for the last two decades (1978-98) is 2.8 per cent per annum. On the other hand, it was 3.6 per cent per annum in Kerala. The increase in inland fish production in Kerala is 5 per cent per annum as compared to the inland fish production from Tamilnadu of a negative growth of 3.3 per cent per annum.
SPECIES GROUP COMPOSITION OF FISH LANDING: As far as the species groups of fish landings are concerned, the landings of all the three groups namely, Crustacean, Cephalopods and Finfish are greater in Kerala as compared to Tamilnadu. Among the three groups, Finfish constitutes the major share of fish production in both the states that is, it is 89 per cent of the total fish production in Tamilnadu and 79 per cent in Kerala. Crustacean landings constitute nine percent in Tamilnadu and 11 per cent in Kerala. The landings of Cephalopods is very insignificant in Tamilnadu (3 per cent) whereas in Kerala it is 10 per cent of the total fish production of the state.

MAJOR SPECIES OF MARINE FISH PRODUCTION: The study shows that the major species of fish caught in marine sector in Tamilnadu are Lesser sardine, Leiognathus, Perches and Prawns. These species combinely account for two fifths of the total fish landings of the state. In Kerala, the major species caught are oil sardine, mackerel, prawn and Cephalopods. These fishes constitute about three fifths of the total marine fish production of the state.

INLAND FISH LANDINGS- SPECIESWISE: In the case of inland fisheries, the fishes like Common carp, Barbus, Tilapia and Rohu are caught in large quantities in Tamil Nadu. They account for about two thirds of the total fish catch from inland sector. In Kerala, the important fishes namely Prawn, Tilapia, Catfish, Etroplus and Mullets constitute nearly three fifths of the total inland fish catch of the state during 1997-98.
SHRIMP LANDING: During 1971-98, the shrimp landing has increased by 122 per cent in Kerala and by just 3 per cent in Tamilnadu. The shrimps caught in Tamilnadu are bigger in size compared to those caught in Kerala and therefore they earn very high price. This makes it possible an upward economic mobility for fishermen in Tamilnadu compared to those in Kerala.

COMPOSITION OF FISH TRADE: With regard to total fish trade, the internal trade is very predominant in both the states. Finfish landings contribute as high as 89 per cent in Tamilnadu and 79 per cent in Kerala of the total fish landings of the respective states. Out of these, a very high proportion of 97 per cent of Finfish landings from Tamilnadu and 93 per cent in Kerala are sold out in the domestic market and only the remaining part of around seven per cent of Finfish landings is traded internationally. But the other two categories though make meagre contribution to the total fish production make a significant contribution to the export trade in both the states. That is, in Tamilnadu about 60 per cent of Crustacean landings and 100 per cent of Cephalopods landings are traded internationally and in Kerala, 53 per cent of Crustacean catch and 62 per cent of Cephalopods catch are exported. During 1970-98 the share of fish export to total fish trade has increased from three per cent to nine per cent in Tamilnadu and six per cent to sixteen per cent in Kerala.

TREND OF EXPORT OF SEAFOODS: The total seafood export from these two states show an upward trend in terms of volume during the period from 1978-99 but the
increase is not in the same proportion in both the states. The marine product exports increased by four and half times in Tamilnadu while it increased only by three times in Kerala during the above said period.

**TREND OF VALUE FISH EXPORTS:** The study indicates that the total value of exports of fish and fish preparations from these two states have been growing fast since 1978. However, the growth is faster in Tamilnadu (48 times) than in Kerala (9 times).

**PORTWISE EXPORTS:** More than 95 per cent of marine products are exported in frozen form. Such Frozen forms of fish are exported mainly through seaports, which have reefer container facilities. There are two major sea ports in Tamilnadu namely, Chennai and Thoothukudy. Of these two, Chennai seaport plays an important role in the exports of frozen fish from Tamilnadu. Volume of fish exports made through Chennai port is two times higher than that of Thoothukudi port. In Kerala, all the frozen form of exports is made through only one port namely Kochi port.

**FISH PRODUCT GROUPWISE EXPORTS:**

**CRUSTACEAN:** As far as the value of exports is concerned a similar pattern is found in Tamilnadu and Kerala. Crustacean are on the top by contributing 85 per cent of the total fish export earnings in Tamilnadu and 56 per cent in Kerala. The significant contribution of high valued exports of shrimps makes the state of Tamilnadu in a better position than the state of Kerala.
CEPHALOPODS: It is found that Cephalopods bring about 29 per cent of the total fish export earnings in Kerala but its contribution in Tamilnadu is only eight per cent. Over the years, the export value of Cephalopods from Tamilnadu and Kerala has increased by 40 times and 62 times respectively during the year 1979 as compared to the year 1999.

FINFISH: In the case of Finfish exports, the state of Kerala is on the top in terms of value. The Finfish exports have increased by 21 times in Kerala and 6 times in Tamilnadu during 1979-99.

FORMS OF FISH EXPORTS: The study finds that more than 95 per cent of the exports of marine products from these states are made in the frozen form. The remaining exports are either in live or in dried and chilled forms. With regard to frozen form of fish exports, Tamilnadu is on the top in frozen shrimp exports whereas Kerala is on the lead in Cuttle fish, Squid and Finfish exports. That is, frozen shrimp is very predominant in the state of Tamilnadu (93 per cent) than that of the state of Kerala (61 per cent) during 1998-99. The second largest item of frozen seafood is cuttlefish in the field of study. It amounts to 20 per cent in Kerala but the proportion is very insignificant, 2 per cent, in Tamilnadu during 1998-99. With regard to the exports of frozen squid, the contribution of Kerala is three times higher than Tamilnadu in 1998-99. In case of exports of frozen fish also, Kerala is ahead of Tamilnadu by three times.
FISH EXPORTS DESTINATIONS:

Japan, USA, members of European Union, South East Asian countries and Middle East Countries are the prime markets for the seafood exports from India and also from Tamilnadu and Kerala. Japan maintains its top position as far as the exports of marine products from India and Tamilnadu.

EXPORTS MARKETS FOR SEAFOODS FROM TAMILNADU: Japan alone accounts for nearly one fifth of the total volume of exports of marine products from Tamilnadu and its share is over three-fifths in terms of value during 1998-99. Exports of seafood to Japan from Tamil Nadu show an increasing trend. During 1998-99 one sixth of fish products from Tamilnadu is exported to South East Asian countries, one ninth to U.S.A and one by twenty to E.U. The market share of Middle East Countries in the exports of seafood's from Tamilnadu is very insignificant during 1998-99.

EXPORT MARKETS FOR SEAFOODS FROM KERALA: Japan was the major buyer of seafoods from Kerala as in the case of Tamilnadu during 1997-98. But the situation changed in 1998-99. That is, the share of the members of European union is on the top in the export trade of marine products from Kerala with a proportion of 33 per cent followed by other countries namely U.S.A (24 per cent) Japan (22 per cent) South East Asia (11 per cent) and Middle East (3 per cent). The exports of seafoods from Kerala to all the above countries show a fluctuating trend.
Problems of Exporters: Out of the total exporters of marine products, about 50 per cent of seafood exporters of the country belong to Tamilnadu and Kerala. These exporters face different types of problems. Major problem of the marine product export trade is the scarcity of raw material. It is caused by increasing trend of domestic consumption of fish and the fluctuating trend in fish production.

Another major problem faced by the exporters is the problem of modernisation. The countries like European Union, U.S.A and Japan link the plant modernisation to the fish exports from India based on the certificates namely, E.U. Approval, HACCP and Pre-Certification. The problem of modernisation is also coupled with finance. Unlike other trades, the fish exporters need huge working capital for the purpose of procuring raw material from the middlemen and the fishermen. The interest charged on loan by the banks is also comparatively higher than that of other countries. High rates of interest reduce the competitive strength of the exporters of marine products in the study area.

The products like live and chilled fishes are generally exported through Airways. The exporters of such seafoods face problems in different forms namely, lack of cold storage facility, loss due to the indifference of the authorities, non-priority in fish loading, intimidation and carelessness of bureaucrats.
After the shipment of the consignments, the exporters are eligible for DEPB. The procedural hurdles cause a lot of delay in obtaining such benefits. These problems should be solved to boost up the exports of marine products.

**HOUSEHOLD CHARACTERISTICS OF FISHERMEN:** A predominant proportion of fishermen households in both the states is Christian. By community about 90 per cent of the fishermen belong to backward. The level of literacy in Kerala as a whole is higher than that of Tamilnadu. But as far as the literacy level among the fishermen is concerned, the overall literacy level in Kerala (87 per cent) is below the literacy level achieved by Tamilnadu (90 per cent). The average size of the fishermen households and the dependency level in both the states are similar.

There is much variance in the average weekly income of the households of fishermen of these two states. The number of female earners in Kerala (17 per cent) is higher than that of in Tamilnadu (10 per cent).

**CHARACTERISTICS OF FISHERMEN:** The study reveals the fact that a proportion of people entering to the fishing profession before attaining the age of 16 years is higher in Tamilnadu (80 per cent) than their counterparts in Kerala (73 per cent).

The average weekly income earned by fisherman in Tamilnadu (Rs.444) is higher than his counterparts in Kerala (Rs.1,370). With regard to ownership of fishing crafts, more than half of the fishermen of Tamilnadu own and use fishing
crafts and gears, whereas only one third of fishermen of Kerala own fishing crafts and gears. Among the craft owners, the proportion of mechanised boat and traditional craft owners in Tamilnadu are greater than their counterparts in Kerala. But it is not in the case of motorised crafts. About half of craft owners in Kerala own motorised crafts and one third of Tamilnadu fishermen own motorised crafts. With regard to fishing gears, the proportion of gears owned and used by the fishermen of Tamilnadu is (45 per cent) greater than their counter parts in Kerala (33 per cent). The registered crafts in Kerala are more than in Tamilnadu. The reasons for not registering the crafts in these two states are similar. The proportion of fishermen that has insured the crafts in Kerala (20 per cent) is higher than in that of Tamilnadu. A very predominant proportion of insurers goes for the total loss coverage of insurance policy in both the states.

PRODUCTION AND COST PERFORMANCE: The production and cost performance are analysed by craft-wise. The overall average weekly fish production is worth Rs.37,432 in mechanised boat. There is a little variation in the distribution of fish production made by mechanised crafts.

The average weekly fish production per motorised craft and traditional craft are Rs.5267 and Rs.1188 respectively (Rs. 1175). The average weekly fish production of motorised and traditional craft is almost similar in the states of Tamilnadu and Kerala.
Generally the cost of fish production of mechanised craft is higher than motorized craft. But there is a little difference in the earning per crew both in mechanised craft and in motorised craft. Though the modern fishing technology was first introduced in Kerala, at present, one eighth of fishermen from Kerala uses modern technology in fishing whereas one fifth of fishermen from Tamilnadu uses modern technology in fishing.

The proportion of safety equipment users in the study area is very insignificant. Majority of fishermen of Tamilnadu expressed that monsoon variation and Trawling are the main causes for low catch. The fishermen of Kerala opined that, pollution and trawling were the main causes for low catch.

During lean season, the fishermen go to far away places for fishing. Such mobility is almost half in Tamilnadu and one seventh in Kerala.

**PROBLEMS OF MARKETING** : Fishermen also face problems with regard to pricing and weighing method of middlemen. About three fourths of fishermen of the study area are not satisfied with the price what they receive for their catch. The fishermen of Kerala are in a better position than in Tamilnadu because the proportion of fishermen under the clutches of middlemen is one-third in Kerala and two-fifths in Tamilnadu. With regard to fairness in weighing, one-third of fishermen from Tamilnadu dissatisfied with fairness in weighing by the middlemen and the
proportion is almost half in Kerala. Using self-balance is the best remedy to keep fairness in weighing the fishes. The care taken with regard to quality and hygiene in fish is greater in Tamilnadu (48 per cent) than that in the state of Kerala (23 per cent). About one third of fishermen of Tamilnadu and one seventh of fishermen of Kerala do not use platforms for auctioning. A small proportions of 10 per cent of fishermen of two states use the storage facilities at the landing centres.

**FINANCIAL PROBLEMS OF FISHERMEN:** The fishermen are used to divert the borrowed funds from the purpose for which it was made. Such diversions of funds are higher among the fishermen of Kerala than their counterparts in Tamilnadu. The diverted funds are utilised mainly for marriage purposes in Tamilnadu whereas in Kerala, the diverted funds are utilised for construction of houses. Majority of the fishermen of the two states saves with fishermen societies and local chits. As regard to spending habits, drinking and smoking are akin in these two states. As far as chewing of betel is concerned, the fishermen of Kerala are more prone than their counterparts in Tamilnadu.

**OCCUPATIONAL PROBLEMS OF FISHERMEN:** Ban on night trawling in these two states is not effectively implemented. About one seventh of fishermen of Kerala and one third of fishermen of Tamilnadu opined against the ban and all others supported the ban on night trawling. Very predominant proportion of fishermen of the two states opined that the ban on trawling for 45 days would increase the fish potential.
The occupational sufferings like physical exertion, chronic diseases are similar among the fishermen of both the states. Among the fishermen affected by chronic diseases, one-fifth of fishermen from these two states is affected by these diseases. One fourth of fishermen of Tamil Nadu and one fifth of fishermen of Kerala suffer from skin diseases. The life killing diseases like Cancer and T.B are relatively higher among the fishermen of the state of Kerala (6 per cent) than their counterparts in the state of Tamil Nadu (3 per cent). The availability of medical facilities is relatively better in Kerala than that of in Tamil Nadu.

The major causes for the loss of craft and gear are natural calamities, riot and strike. In between the two states, the fishermen affected by natural calamities are higher in Kerala (80 per cent) than in Tamil Nadu (78 per cent). About 26 per cent from Tamil Nadu and 15 per cent from Kerala have been affected by riot and the proportion of fishermen affected by strike is similar in the two states.

**Socio-Economic Problems of Middlemen:** The role of middlemen becomes inevitable in fish marketing. They act as a linking point between the fishermen and the exporters of seafood. The study reveals some facts relating to the socio-economic and occupational problems of middlemen from Tamil Nadu and Kerala.

There is hundred per cent literacy among the middlemen in the fishing industry of both the states. The average weekly income earned by the middlemen of Tamil Nadu (Rs 1,384) is higher than their counterparts in Kerala (Rs. 1,176). The mean household’s size of middlemen in Tamil Nadu (6.3) is more than that of in
Kerala (6 per cent). The literacy rate among the households of intermediaries is similar in Tamilnadu and Kerala (8 per cent). The dwelling pattern of fishermen of both the states is similar.

**OCCUPATIONAL PROBLEMS OF MIDDLEMEN:** Majority of fishermen in Tamilnadu (80 per cent) and Kerala (62 per cent) take up this middlemen profession as first generation one. They follow different methods for procuring the fishes. The predominant method followed in state of Tamilnadu (84 per cent) and Kerala (96 per cent) is auction method. In these two states, there are variations in prices in the retail market. Such price variance is very high in Kerala (94 per cent) as compared to that of in Tamilnadu (72 per cent).

One fourth of middlemen opined that the prices what they received for their products were unfair. The prices offered for the fishes are different from state to state and also from place to place within the states. The prices of fish in Kerala are relatively less than that in Tamilnadu. In both the states, the middlemen rely more than one mode for the transportation of the fishes. The exporters in Tamilnadu are (74 per cent) more prompt enough in making payments to middlemen as compared to the exporters of Kerala (58 per cent). The proportion of intermediaries who made advances is comparatively higher in Tamilnadu than in Kerala.

The major occupational problems of the middlemen are similar in both the states namely, shortage of material, competition, fluctuation of prices and regional problems.
7.3 CONCLUSIONS

Fishery sector plays an important role in the Indian economy by augmenting food supply to the growing population, providing a lot employment opportunities to the poor fishermen and fetch lot of foreign exchange to the country. The fishery resources of the country are so vast that a half of them alone has been exploited so far, and in the states of Tamilnadu and Kerala about two fifths of their fish potentials have been tapped so far. Between the two sectors in fisheries namely, marine and inland, more than fifty per cent of the country's fish production comes from marine sector but the proportion is comparatively higher in these two states (75 per cent each) than India. There is also much possibility of increasing inland fish production in these two states.

Out of total fish landings, finfish takes the major share of 89 percent in Tamilnadu and 79 percent in Kerala. But, as far as fish exports are concerned the Crustaceans play a dominant role in these states. That is, its share is only one tenth in the total landings in both states but its contribution to the total seafood exports is very commendable with a share of 85 percent in Tamilnadu and 56 per cent in Kerala. Among the Crustaceans, shrimp is the largest foreign exchange earner in Tamilnadu (95 per cent) and in Kerala (61 per cent). As far as total exports of seafoods are concerned the state of Tamilnadu is ahead of Kerala.
In respect of markets, Japan continues to be the single largest market for India as well as to these two states followed by USA and E.U. Emergence of China as third largest market for our marine products is one of the major market shifts. In recent years the seafoods from Kerala were not only diversified but also diverted to E.U countries instead of depending on the traditional importers namely, Japan and USA. But there is no such diversification or diversion in the exports of Tamilnadu.

Though the sea food trade fetches enormous foreign exchange to the country, it faces a lot of problems too. The problems faced by the sea food exporters in the country and the two states are similar in nature. The major problems are, increase in the idle capacity of freezing plants for want fish supply, problems relating to modernisation of the fish processing plants to meet the international standards fixed by the major importers of sea foods, financial problems, problems created by the overseas buyers in delaying the payments and making wrong claims on the products and the problems created by the bureaucrats by delaying the benefits to the exporters and the problems relating to the price fluctuations in the overseas market.

The problems which prevail in the fish trade are mostly interdependent. The exports of sea foods depend on the fish production and the fish production depends on the productivity of fishermen and fishing technology and also the infrastructure facilities created by the governments of central and the states. The fishermen are by and large poor and illiterate. The poor economic status makes them lagging behind
with regard to modernisation of their fishing crafts and gears. The problems faced by
the fishermen and the intermediaries in these two states are similar in nature. The
fishermen are exploited by the middlemen while weighing the fish and fixing the
price for the catch. The financial crisis of the fishermen is also exploited by the
middlemen.

The intermediaries in fishing industry also face lot of problems from the
fishermen as well as from the exporters. In most of the cases, the money invested on
fishermen becomes fruitless when the fishermen lost the gear or craft due to the
perils of sea. Sometimes, the fishermen receive advances from more than one
middlemen and it leads to crisis and confrontation. The middlemen face problems in
the form of deliberate delay in payments by the exporters.

In order to tap the maximum fish potentials and to improve the exports of sea
foods further, all the problems faced by the fishermen, intermediaries and the
exporters should be solved. Such problems could be solved to certain extent partly
by themselves and partly by the Central and the State Governments by implementing
various technical and welfare schemes for the fishermen, by improving the
infrastructure facilities in the marketing place for the intermediaries and by
extending all export promotion schemes and subsidy schemes for the seafood
exporters in the country especially in the states of Tamilnadu and Kerala.
7.4 SUGGESTIONS

On the basis of the findings of the study the following suggestions are made:

*Short supply of Fish* is the major problem of the exporters of marine products. This problem can be solved only by increasing the fish production both in marine and inland sectors. To increase the marine fish production, the fishermen should be given proper training in deep-sea fishing and the small fishermen should be encouraged by ensuring liberal loans to buy fishing crafts and gears. *Fresh water prawn farming* is a viable alternative to marine shrimp farming, offering immense potential for entrepreneurs and fish farmers to venture in a big way. The fresh water prawn farming is non-polluting, does not cause ground water salination and disease free.

To improve the supply side, the aquaculture authority should issue licenses to brackish water prawn farms in Tamilnadu. So far it issued only 12 licenses (after the relevant Supreme Court ruling) in Tamilnadu out of the 1250 prawn farms covering a water spread area of 4035 hectares spread over 12 districts. Such programmes relating aquaculture for prawns, mussels, oysters and eels should also be promoted to increase the inland fish production and thereby solving the short supply of fish.

The small-mechanised boats are to be encouraged in *deep-sea fishing*. For this purpose, the government should supply diesel at the rate at which it supplies to
deep-sea vessels. At present, deep-sea vessels purchase diesel at the rate of Rs.9.50 per litre and the small boat owners purchases at the rate of Rs.19.10 per litre.

The fishermen should be encouraged to modify their fishing vessels from inshore operation to offshore operation.

In a bid to conserve fishery resources and avert its overexploitation, the Government of Tamilnadu imposed a ban of 45 days from 15th April to 31st May in east coast and from 15th June to 30th July in West Coast every year. The ban period at East Coast can be shifted to 15th May and can be extended upto to June 30. So that the fishermen of East Coast areas can get the maximum benefit. Such change is not necessary in the case of ban period in Kerala.

It is also suggested that the workers involved in trawling should be provided with some monetary relief (say Rs.2000) a lump sum grant during the ban period for their maintenance.

The government should extent the scheme of providing echo sounders (fish finder) to the fishermen with 25 per cent subsidy in addition to the VHF (Very High Frequency) sets to enable the fishermen to maintain a close contact with the fisheries authorities at the time of natural calamities and mishaps.
The fishermen should be trained in such a way that they should co-operate with the government in implementing the conservation regulations like the usage of mesh size for fishing and observing fishing holidays.

*Subsidy scheme on kerosene* meant for small fishermen should be carefully implemented so that the cost of fish production should not exceed the sale proceeds.

In order to increase the supply side, the government should provide at least one *landing centre* with a distance of every ten kilometres in both the States with the help of RIDF (Rural Infrastructure Development Fund).

Idle capacity in the seafood processing plants should be made use of by *importing fish* from other countries where the raw material is plenty and cheap. Such countries are South Africa, Oman, Indonesia, Tanzania and Nigeria.

To facilitate the marine product exports of Kerala and the neighbouring States, the consignment under the *sanitary permit system* should be allowed for import through Kochi Port in addition to other four ports namely, Delhi, Mumbai, Kolkata and Chennai.

The *present tariff* (15 per cent duty, 1.5 per cent surcharge and 4 per cent special additional duty) on fish import should be reduced significantly.
The problem of modernisation of fish processing plants should be solved by the Government of India by providing *financial assistance* in the form of loans implied with subsidies through MPEDA or other financial institution like Exim Bank. High rate of interest is the prime cause, which reduces the competitiveness of Indian fish exporters in the international market. Hence, the fish exporters should be provided with adequate financial assistance at a low rate of interest.

The exporters of marine products should make use of all the trade benefits from *Special Economic Zones* (SEZ) sanctioned at Nangunery and Thoothukudi in Tamilnadu and at Kochi in the state of Kerala.

The rate of *Duty Entitlement Pass Book* scheme is to be increased from the existing 2 per cent to 3 per cent for the exporters of marine products.

*Duty exemption schemes* should continue so long as the incidence of customs or additional customs duty is high since the exporters would not be able to afford the additional cost burden due to the rate of interest on working capital and modernisation of their plants.

Non-availability of *storage facilities* for chilled and live fishes at the airport cause quality deterioration of such exportable marine products. The government should solve it by taking this issue and asking the airport authorities to equip the airport with proper and adequate storage facilities for marine products.
Problems created by bureaucrats in *space allocation* in the Air Cargo, offloading the fish products, delaying the refunding of cess amount, could be solved by the intervention of the government and also by taking stern actions against the erring officials.

*Bar Coding* of packaged export of marine products is to be encouraged with a view to introducing international practices for labeling and packaging. All Bar Coded products should be given additional weightage for calculating eligibility for granting status to such export units.

Majority of exporters of marine products face problems by way of over depending on a few markets namely, Japan, E.U., and USA. The problem arises to the Indian exporters of seafoods especially when these countries experience any economic slump. Such problem could be solved by *diversifying the marine products* export trade to different countries such as chilled and fresh fish to the countries like Canada, Switzerland, UAE and Singapore, live lobster, eel and crab to the countries like Hong Kong, China, Taiwan and Singapore and frozen fish to the importers namely, China, Hong Kong, South Africa and UAE.

Director General of Foreign Trade (DGFT) and MPEDA field officers should be oriented to *assist exporters* and *provide them information* about export prospects, the policies, duty structures, export requirements and sanitary standards, measures of various importers of marine products from India especially from Tamilnadu and Kerala.