

# **Marine Fisheries Research and Management**

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# 58 **Distribution problems and marketing management of marine fisheries in India**

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## **ABSTRACT**

*Demand and price of marine fish are continuously increasing in our domestic and export markets. Fish marketing system in India is rapidly changing in recent years due to the vast improvement in handling technology, transportation and consequent market penetration. This paper deals with the fish marketing system prevailing in India, price structure, marketing margins of commercially important varieties of fish and the share of fishermen as well as middlemen in consumer's rupee at selected centres of Gujarat, Maharashtra, Karnataka, Kerala, TamilNadu and Andhra Pradesh during 1996-97 by direct observation. The fishermen's share in consumers' rupee varied from an average of about 30 to 68% for different varieties. Marketing costs including transportation ranged from 6 to 13%, wholesalers from 5 to 32% and retailers from 14 to 47% of consumers' rupee for different varieties of fish. Considerable inter-state variation in consumers preference and fishermen's share in consumer rupee for different varieties of fish has been observed. A few suggestions for the improvement of fish marketing systems have also been given.*

## **Introduction**

The growth of fish production and development of fishery sector is highly dependent on an efficient fish marketing system. The post-harvest operations of fish provide more employment to labour than the production sector. Improved methods of handling and storage of fish in recent years has led to rapid changes in the distribution process and fish marketing system. The

fresh fish that are inaccessible to far off places from landing centres a few years back are now easily accessible due to the vast improvement in handling technology coupled with fast transportation facilities and consequent market penetration. The iced fish faced initial consumer resistance have now got almost total consumer acceptance. The consumption of dry fish has declined and other forms of preservation such as freezing and canning have gained momentum. The trash fish, hitherto largely underutilized has been diverted to fish meal plants which proved to be a boon to the Poultry Industry. However, both in internal and external marketing, a large number of intermediaries are involved before fish reaches the hands of ultimate consumer. An efficient marketing system of any commodity aims at to ensure the services of middlemen at minimum cost.

Fish marketing may be broadly defined as all those functions involved from the point of catching of fish to the point of final consumption. As the fish, like any other product moves closer and closer to the ultimate consumer, the selling price increases since the margins of the various intermediaries and functionaries are added to it. The pricing efficiency is concerned with improving the operation of buying, selling and other connected aspects of marketing process so that it will remain responsive to consumer direction. The Central Marine Fisheries Research Institute has conducted a few fish marketing studies at selected regions of our country during the last two decades. The present study on fish marketing and price behaviour was undertaken at selected primary, wholesale and retail markets of different maritime States of India with the following specific objectives (i) To review the trend of distribution process and price behaviour of selected varieties of fish. (ii) To assess the fishermen's share in consumers rupee for selected varieties of fish in different maritime States (iii) To assess the marketing margins and its distribution process to various intermediaries and (iv) To give Policy suggestions for improving the marketing efficiency and fish marketing system.

#### **Materials and methods**

Price behaviour and distribution pattern of marine fish over the years have been collected from various publications of Central Marine Fisheries Research Institute, State Government publications and other agencies. In the marine fishery sector, all the fish landing centres of the coastal belt are functioning as "primary markets." There are different "wholesale markets" near

to the coast as well as in interior places. Fish moves to the "retail markets" before passing on to consumers. Data on current price level on various varieties of marine fish at primary, wholesale and retail points have been collected weekly once at selected markets during 1996-1997 in different maritime States under simple random sampling technique. As far as possible the major landing centres in each maritime State have been selected as Primary market for collection of data Table 1.

It is well known that the price of each variety of fish varies with its size. There is also considerable variation in the size of same variety of fish between regions and markets observed in each maritime State. Hence, special care has been taken to collect the price data of identical size of fish in primary, wholesale and retail markets of each marketing channel.

#### **Distribution pattern in internal and export marketing**

Currently about 90% of the marine fish catch is channelised in the domestic market and the rest for export market. Earlier marine fish consumption was mostly confined to the coastal and adjoining regions. About 50% of the fish is consumed fresh in and around producing centres, 43% in demand centres located upto a distance of 200 km from the coast and only 7% goes to the centres located beyond 200 km. The extent of spoilage of fish at landing centres as well as various points of the distribution channels has been considerably reduced due to widespread use of ice, technological improvements in processing and transportation facilities. However, in fresh fish trade, areas of fish surpluses and deficits are quite commonly observed in the internal marketing system.

The percentage distribution of marine fish in fresh, frozen, cured, dried, canned and other forms has drastically changed over the years. The utilization pattern of marine fish in 1961 and 1996 is given in Table 2. About 44% of the fish catches are now consumed in fresh form. The supply of fish to dry fish trade has declined from 44% during 1961 to 31% in 1995.

The exports in frozen forms has increased from 2 to 12% and the conversion of fish meal has increased from 7 to 15% during this period.

Marine products are exported from India in live, frozen, canned and dried forms. The share of live and dried items are very much marginal in the

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**Table 1. Details of sampling Centres covered under the study**

State	Landing Centre	Wholesale Market	Retail Market
<b>Gujarat</b>	1. Mangrol 2. Veraval(Bhidia) 3. Ghoghado 4. Veraval(Old Light House)	1. Veraval 2. Kharakura fish market	Kharakura fish market
<b>Maharashtra</b>	1. Versova	1. Chatrapathi ShivajiMandai	1.Chatrapathi Shivaji Mandai 2.Craw Fort market
<b>Karnataka</b>	1. Karwar  2. Mangalore	1. Karwar  2. Mangalore Bunder	1.Karwar market 2.Majall 1.Hampankatta 2.Jeppu market
<b>Kerala</b>	1. Kochi Fisheries Harbour 2. Sathikulangara  3. Puthiappa	1. Alwaye  2. Pangode(TVM)  3. Calicut Central market	1 Ernakulam 2.Pachalam 1.Palayam 2.Chalai 1.English Palli market 2.Mathottam fish market
<b>Tamil Nadu</b>	1. Tuticorin Fisheries Harbour  2. Mandapam Fisheries Harbour 3. Madras Fisheries Harbour	1. North landing Centre 2. Mandapam  3. Cindadri-pet	1.S.S.Pillai market 2.V.O.C.market 1.Mandapam 2.Mandapam Camp 1.Saidapet 2.T.Nagar
<b>Andhra Pradesh</b>	1. Kakinada Fisheries Harbour  2. Visakhapatnam Fisheries Harbour	1. Kakinada Fisheries Harbour  2. Lawson's Bay	1.J.K.Pur market 2.Sarpavaram  1.Chinna Waltair 2.Poona market

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Table 2. Distribution and utilization pattern (% of fish in various forms)

Type	1961	1995
Frozen/Export	2	12
Fresh	47	44
Cured & dried	44	29
Fish meals	7	15

total share of Indian sea food export. However, about 95% of our exports are in frozen forms. Further, about 50% of our frozen exports are contributed by low graded products like P.D (Peeled and deveined) and P.U.D (Peeled and Unveined) whereas high unit value products like headless contribute 40% and head on contribute only 2%. As the major share of the frozen quantity is constituted by low priced products, India could not take full advantage of its potential exchange earnings from marine products. It seems that we are supplying mostly raw materials to the importing countries, which in turn re-process it and realize more income.

**Problems in distribution and marketing**

1. Greater uncertainties in fish production and hence in the supply of fish.
2. High perishability of fish.
3. Assembling of fish from too many coastal landing centres.
4. Too many varieties and hence too many demand patterns.
5. Wide spatial and temporal variations in market arrivals and prices.
6. Dis-equilibrium of demand and supply.
7. Difficulty in maintaining the quality of fish.
8. Lack of information on fish price and production.

**Fish marketing channel**

Marketing channel refers to the path through which the product passes from the producer to the hands of ultimate consumer. In case of marine fish marketing, fish travels long distances from coastal areas to the interior parts of the country. The following marketing channels are prominently observed in the fish marketing system in India.

1. Fishermen, Auctioneer, Agents of freezing plants, Exporters.
2. Fishermen, Auctioneer, Processor (Dry fish), Wholesaler, Retailer, Consumer.
3. Fishermen, Auctioneer, Wholesaler (primary market), wholesaler (Retail market), Retailers, Consumer.
4. Fishermen, Auctioneer, Commission agents, Wholesaler, Retailer, Consumer.
5. Fishermen, Auctioneer, Retailer, Consumer.
6. Fishermen, Auctioneer, Consumer.

The major portion of the internal fish marketing takes place through 3rd and 5th channels. The auctioneers of the primary market and commission agents of the secondary market are also involved in the process without taking possession of the fish.

At landing centres, fishes are disposed by auctioning. This provides maximum competition among buyers and enable quick disposals. Fish at the landing centres are not sold in weight because of the practical difficulties involved in the handling of such a highly perishable commodity. Hence, the sales are carried out by measures of heaps or in lots of different sizes. However, for exportable varieties like prawns, the price per kg is fixed by auction and weighed before delivery. Generally the auctioning is done by traditional auctioneer or middlemen on commission basis who takes up the responsibility of realising the sale proceeds from the traders. The auctioneers at the landing centre take 5-10% of fish auctioned by them as commission. Since many of the auctioneers advance loans to the fishermen, they take a portion of share towards the interest for the loan given.

**Price behaviour - an overview**

Demand and price of marine fish are continuously increasing in our domestic markets. The level of supply, consumer preference, price of other varieties of fish and general price level of vegetables and meat are some of the important factors which influence the price of fish. The increase in fish prices over the years is even higher than the increase in food grain prices. The wholesale and retail price behaviour of some of the commercially important varieties of marine fish over the years are given in Tables 3 and 4. The average wholesale price of seerfish increased from Rs.4/- per kg during 1973-74 to Rs. 60 per kg during 1996-97 recording an increase of 15 times during the last 23 years. The seerfish commanded the highest wholesale price till 1993-94 in the internal marketing system and it was now replaced by pomfrets. The increase in wholesale price of marine fish over the last 23 years ranges from 6 1/2 times for ribbonfish to 35 times for pomfrets. More or less a

Table 3. Wholesale price behaviour of marine fish in India ( Rs./kg)  
Average Price

Name of fish	1973-74	1984-85	1989-90	1993-94	1996-97
Seerfish	4.00	19.00	28.90	58.00	60.00
Pomfret	2.00	17.50	15.20	35.00	70.00
Barracudas	2.00	11.25	15.20	30.00	35.00
Tuna	2.00	10.00	13.45	30.00	32.00
Sharks	1.50	11.25	13.85	26.00	28.00
Catfish	1.00	7.75	13.00	20.00	24.00
Mackerel	2.00	6.25	9.00	16.00	18.00
Sardines	1.00	4.00	6.90	13.00	15.00
Ribbonfish	2.00	5.00	6.15	10.00	13.00
Whitebaits	2.00	5.00	5.85	15.00	15.00
Rays	1.00	6.00	6.40	12.00	15.00



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**Table: 4. Retail price behaviour of selected varieties of marine fish in India (Rs/kg)**

	Average retail price				
	1973-74	1983-84	1989-90	1993-94	1996-97
Seerfish	9.00	27.00	35.50	66.00	70.00
Pomfrets	2.50	22.00	29.50	35.00	96.00
Barracudas	2.50	15.35	21.00	35.00	45.00
Tuna	3.00	16.50	18.50	39.00	40.00
Sharks	2.50	17.00	17.00	31.00	35.00
Catfish	2.50	11.00	16.50	30.00	36.00
Mackerel	3.00	9.85	12.50	25.00	28.00
Sardines	2.00	6.70	10.00	16.00	24.00
Whitebaits	3.00	8.00	9.00	18.00	20.00
Ribbonfish	2.50	8.50	10.00	19.00	21.00
Rays	2.00	10.00	10.75	15.00	19.00

similar trend was observed in the retail price behaviour also as shown in Table 4. Maximum increase in retail price was observed for pomfrets, followed by seerfish and barracudas.

Very wide seasonal variations in the prices of different varieties of fish have been observed in primary, wholesale and retail markets. There is also considerable variation in the price of same variety of fish between different regions. This is mainly due to the change in consumer preference of different varieties and also due to the difference in the size of fish. In Gujarat, the highest consumer preference is observed for pomfrets followed by seerfish, sharks and threadfins in the internal market. The cephalopods command comparatively good price due to its export demand. The average landing centre price in Gujarat for different varieties of fish varies from Rs.4/= per kg for lizardfish to Rs. 83/= per kg for pomfrets. The average price of pomfrets and seerfish are higher at Maharashtra at all levels of the marketing channel than other States. Sharks fetched comparatively lesser price in Maharashtra due to

its low consumer preference. The consumer price was more than double from the landing centre price for varieties such as tuna, sharks, lizardfish and croakers in Maharashtra.

Pomfrets used to get higher prices at all levels of the marketing channel in Karnataka as against seerfish in Kerala. The retail prices of all varieties of fish except pomfrets and mullets are higher at Kerala than in Karnataka. Landing centre price was hardly one third of consumer price for varieties such as mackerel, ribbonfish, whitebaits and lizardfish in Karnataka and sardines, rays, whitebaits, lizardfish and croakers in Kerala. The order of consumer preference for different varieties of fish in TamilNadu is seerfish, pomfrets, barracudas, tunas and sharks. The lowest centre price is recorded for lizardfish and silverbellies in TamilNadu. The landing, wholesale and retail prices of almost all varieties of fish in Andhra Pradesh are comparatively lesser than in other States.

On the basis of the data collected from the selected landing centres, wholesale and retail markets of six maritime States, the all India average price has been worked out and given in Table 5. The lowest average landing centre price was noticed for silverbellies and lizardfish (Rs. 6/kg) as against the highest price for pomfrets (Rs. 58/Kg). However, the increase in wholesale price per kg was maximum for barracudas (Rs. 17) and minimum for ribbonfish and goat fish (Rs. 3). The average wholesale price of fish ranged from Rs. 9/ per kg for lizard fish to Rs. 70/ per kg for pomfrets. The average retail price per kg ranged from Rs. 17 for lizardfish to Rs. 96 for pomfrets. The highest retail price of Rs. 96/ per kg for pomfrets and Rs.70/ per kg for seerfish was observed in the internal marketing systems mainly due to high consumer preference. The average retail prices of medium quality fishes like catfish, big - jawed jumper, shark, tuna and barracudas ranged from Rs. 35 to 45 per kg.

**Fishermen's share in consumer's rupee** Fishermen's share in consumer's rupee is the best index to measure the efficiency of fish marketing system. Fishermen in Gujarat received 37% (Catfish) to 83% (Ribbonfish) of consumer's rupee (Table 6). The producers could receive higher share in consumer's rupee for ribbonfish due to its rapidly picking up export market in recent years. However, in Maharashtra, fishermen's share in consumer's rupee ranged from 36% for shark and barracudaas to 81% for seerfish. The

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Table 5. Average (1996-97) primary, wholesale and retail prices (Rs./kg) of selected varieties of marine fish in India

Name of fish	Landing Centre	Wholesale	Retail
Seerfish	48	60	70
Pomfrets	58	70	96
Barracudas	18	35	45
Tuna	18	32	40
Sharks	15	28	35
Catfish	20	24	36
Mackerel	14	18	28
Sardines	8	15	24
Ribbonfish	10	13	21
Rays	9	15	19
Whitebaits	8	15	20
Lizardfish	6	9	17
Goatfish	12	17	21
Threadfin	13	22	31
Croakers	10	15	21
Silverbellies	6	10	20
Big-jawed jumper	21	26	38
Mulletts	14	22	34
Half & full beaks	15	19	23
Cephalopods	22	27	34

**Marine Fisheries Research and Management****Table 6: Fishermen's share(%) in consumers' rupee for selected varieties of fish in different maritime States (1996-97)**

Name of fish	Guj.	Mah.	Kar.	Kerala	T.Nadu	A.P.	All India
Seerfish	71	81	40	65	49	49	68
Pomfrets	64	68	46	43	51	53	60
Barracudas	36	55	53	54	24	40	
Tuna	63	43	-	51	60	36	45
Sharks	45	36	40	63	60	17	43
Catfish	37	76	35	58	63	33	56
Mackerel	50	50	33	50	55	26	50
Sardines	60	57	54	43	63	58	33
Ribbonfish	83	60	41	37	55	36	48
Rays	-	-	-	30	57	40	47
Whitebaits	-	-	33	26	48	22	40
Lizardfish	44	43	31	30	53	36	35
Goatfish	-	-	-	60	60	42	57
Threadfin	43	-	-	-	53	23	42
Croakers	56	45	38	31	63	27	48
Silverbellies	-	-	-	35	32	21	30
Big-jawed jumper	-	-	60	45	67	44	55
Mulletts	-	45	42	59	46	38	41
Half&full beak	-	-	-	61	65	-	65
Cephalopods	63	75	71	71	51	44	65

producers received the highest share in consumer's rupee for cephalopods (71%) in Karnataka and Kerala whereas the same is for big-jawed jumper (67%) in Tamil Nadu and for sardines (58%) in Andhra Pradesh. However, it may be seen that on all India level, fishermen received an average of 30% (silverbellies) to 60% (seerfish) of consumer's rupee for different varieties of

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fish. The general trend of fishermen's share in consumer's rupee for different varieties of fish in various states indicates that the fish marketing system is comparatively efficient in Gujarat and Maharashtra while less efficient in Karnataka and Andhra Pradesh.

The percentage distribution of consumer's rupee for different varieties of fish during 1996-97 on all India level is worked out and given in Table 7. The fishermen's share in consumer's rupee ranges from 30 to 68% for different varieties. Marketing costs including transportation ranged 6 to 13% of the consumer's rupee. Wholesalers received 5 to 32% and retailers from 14 to 47% of consumers rupee for different varieties of marine fish.

Table 7. Percentage distribution of consumers' rupee for different varieties of marine fish in India (1996-97)

Name of fish	Fishermen	Handling & Transportation	Wholesalers	Retailers
Seerfish	68	6	12	14
Pomfrets	60	7	9	24
Barracudas	40	9	30	21
Tuna	45	9	28	18
Sharks	43	10	32	15
Catfish	56	10	10	24
Mackerel	50	9	11	30
Sardines	33	12	23	32
Ribbonfish	48	10	12	30
Rays	47	13	22	28
Whitebaits	40	12	28	20
Lizardfish	35	12	15	38
Goatfish	57	13	16	14
Threadfins	42	9	20	29
Croakers	48	11	14	27
Silverbellies	30	15	8	47
Big-jawed jumper	55	10	9	26
Mulletts	41	9	17	33
Half&full beaks	65	9	10	16
Cephalopods	65	10	5	20

Marketing costs appear to be high for small sized and cheaper varieties of fish as it was seen that the handling and transportation cost of silverbellies were as high as 15% of consumer's rupee. Wholesalers received the minimum share of 5% for cephalopods as this variety is mostly channelised to export market and it has a stabilized market demand. However, the wholesaler's margin of 32% for sharks and 30% for barracudas clearly indicates that the supply of these items are controlled at the wholesale level by making use of the processing facilities or by diverting it to different retail markets. Retailers share in consumer's rupee is comparatively very high for silverbellies (47%), lizardfish (38%), mullets (33%) and sardines (32%).

#### **Marketing expenses**

Marketing expenses in fish marketing refers to the charges incurred for the handling and transportation of fish during its movement from the production point to the consumption point. The fish passes through a number of hands before reaching the ultimate consumer. Due to its perishable nature, proper preservation and handling is vital. Bamboo baskets are mostly used to pack the fish which lasts hardly only for about a month. Bamboo baskets are now gradually being replaced by plastic baskets due to its high durability. For transportation of fish, trucks, tempos, motorised cycle rickshaws, mopeds and bicycles are used generally. During 1993-94, the freight charges for a truck load was Rs.5-6 per km. In Madras region, the transport of fish from landing centres to wholesale and retail markets is mostly through motorised cycle rickshaws. Sometimes, retailers with less quantity of fish group together and engage a common vehicle for transport. For packing, ice is used at the rate of 20-25 kg to pack 25-30 kg of fish which can be packed in a basket. The cost of ice during 1993-94 was Rs.25-30 for a 50 kg block. The labour charge for loading and unloading worked out to Rs. 5 per basket.

Marketing costs in the recent past have considerably increased due to distant transportation and market penetration of marine fish. The marketing costs varies from 15% (mullet) to 30% (goatfish) of the marketing margins (Table 8) for different varieties of fish.

#### **Marketing margins and efficiency**

The gross marketing margin refers to the difference between the price paid by the consumer and the price received by the producer. This includes

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all costs of assembling, grading, packing, transportation, processing and storage, wholesalers' and retailers' margin.

The marketing margin is an indicator of the marketing efficiency. In the absence of any value added process, higher the value of the marketing margin, lower the efficiency of the system. On one hand, the producers deserve a legitimate share in the consumer's rupee and on the other hand, the consumer's rights have to be safeguarded against excessive prices. These twin objectives can be achieved by ensuring various marketing services at reasonable costs, i.e. restricting margins at a reasonable level. The marketing margins for various varieties of fish and its percentage distribution pattern towards marketing costs, wholesaler's and retailer's margin is furnished in Table 8.

Marketing margins ranged from Rs. 8 per kg for half-and full-beaks to Rs 38 per kg for pomfrets. In general, retailers received better share in the marketing margins for most of the varieties. They received more than 50% of the marketing margins for varieties like pomfrets, catfish, mackerel, ribbonfish, lizardfish, threadfin, croakers, silverbellies, big-jawed jumper, mullets and cephalopods. Wholesalers receives comparatively higher share in the marketing margins for barracudas (50%), tuna (51%), sharks (56%) and whitebaits (47%).

#### **Conclusion**

The extent of marketing margins for different varieties of fish clearly indicates that the present mode of fish marketing system in India is still under the clutches of middlemen. The fishermen do not get legitimate share in the recent price escalations of fish and fish products. The involvement of several middlemen in the marketing chain is detrimental to the interest of both producers and consumers. The high level of marketing margin indicates the inefficient fish marketing system prevailing in the country.

The variation in landing centre price is wide only for few varieties depending upon the size of its day to day catch. Even for these varieties the retail prices do not show much fluctuation. Because of the monopolistic situation at the wholesale level, the wholesale and retail prices are maintained at a higher level even at the time of glut either by controlling the supply by making use of the processing facilities or by diverting it to different retail

markets. Whatever the processing facilities including drying and curing

Table 8. Average primary, wholesale and retail prices of selected varieties of marine fish in India (1996-97)

Name of fish	Marketing margins (Rs./kg)	Distribution of marketing margins(%)		
		Marketing	Wholesaler	Retailer costs
Seerfish	22	19	37	44
Pomfrets	38	18	23	59
Barracudas	27	15	50	35
Tuna	22	16	51	33
Sharks	20	18	56	26
Catfish	16	23	23	54
Mackerel	14	18	25	67
Sardines	16	18	34	48
Ribbonfish	11	18	23	58
Rays	10	1	935	44
Whitebaits	12	21	47	33
Lizardfish	11	20	23	59
Goatfish	91	8	37	33
Threadfin	18	30	34	50
Croakers	11	16	27	52
Silverbellies	14	21	11	68
Big-jawed jumper	17	21	20	58
Mulletts	20	15	23	56
Half&full beaks	8	26	29	45
Cephalopods	12	29	14	57



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available, only the middlemen take advantage out of it and its benefit is not transferred to the fishermen to any extent, that is why in case of sharks, rays and silverbellies the marketing margin is comparatively very high.

To protect the interests of both the producers and the consumers, it is essential to reduce the magnitude of marketing margins. The level of marketing margin in respect of many varieties is high mainly due to higher margins received by the middlemen. The share of marketing expenditure is comparatively low. To increase the efficiency of fish marketing system the involvement of too many intermediaries has to be avoided by introducing a co-operative marketing system. Fish marketing co-operatives can be established with a view of vertical integration of marketing so as to help the fishermen to get a remunerative price and the consumer to get the fish at a reasonable price.

A good number of varieties of fish which have been till recently considered as trashfish have picked up consumer preference and fetched comparatively higher price. This is mainly due to the better transportation facilities to channelise the fish to interior places. Hence, by improving the transportation facilities of fish without impeding its quality and also by organising the consumer promotional programmes through establishments of fish stalls to sell the fish at a reasonable price and in hygienic condition, the consumer preference can be created even for those varieties which have been so far discarded as trash fish. It will help the fishermen to realise a higher value for their produce which includes a considerable quantity of trash fish. The prices of fish at the landing centre(primary market) were subjected to wide fluctuations. Due to the inelastic supply of fish, price is slashed down in the case of heavy catch. Once fish is landed, the producer is forced to dispose off at whatever price prevailing due to lack of storage or processing facilities. Even for those varieties which undergo some sort of processing, only the middlemen take advantage of it and the fishermen do not get a legitimate share. Hence, it is essential not only to establish storage and processing facilities atleast at the major landing centres, but also make it available to the fishermen for its fuller utilization . It will also help the consumer, to get fish at a reasonable price even in lean period.

Regarding the fish marketing there has been no regulation even in major markets which usually helps only the middlemen. No proper grading,

weighing and quality control are maintained at any level of fish marketing. Most of the existing malpractices in fish marketing can be avoided by introducing regulated marketing system in the lines of the regulated markets of some of the agricultural produce.

In the event of glut in the primary market (landing centre), the fishermen are forced to dispose off the catch at a throwaway price. But this is not often reflected on the trend in wholesale and retail prices. The occasional huge catch of certain variety does not help either to the fishermen or to the consumer. To avoid such a situation it is necessary to have a support price policy as prevailing in the case of jute, cotton, etc. For each season a minimum floor price can be declared atleast for the major varieties. However, this can be successfully implemented when there is a public agency to enter into the market to purchase fish whatever supplied in excess of demand and also with adequate storage and processing facilities.

The producers and consumers are not aware of the current price structure of different varieties of fish in various markets of the country. The periodical dissemination of information on prevailing prices of commercially important varieties of fish in different markets will be much useful to the fishermen, traders and consumers.

In recent years, the export of live fish items have gained momentum in the Sea Food Industry. Such live items are of great demand in Southeast Asian countries. The flourishing live fish trade should be given adequate attention for its expansion as it receives better returns even with high cost of handling. Similarly some of the marine products have pharmaceutical importance. Shark liver-oil and sea-horses are notable among them. It is ideal that all the pharmaceutically important marine products should be identified and a better utilization policy should be evolved.

A cautious fish marketing policy giving parallel importance for domestic and export marketing should be evolved in the context of liberalization of economic policies. Our domestic population should not be totally deprived of the protein rich cheap food due to our excessive emphasis on exports. Marine products which are capable to fetch the highest competitive price in the international market alone should be diverted to exports and the rest should be channelized to our domestic market.

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