AN EVALUATION OF THE INTERNAL DISTRIBUTION CHANNELS OF MARINE FRESH FISH IN QUILON DISTRICT

by

K. J. SEBASTIAN

THESIS

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1990

DECLARATION

*I hereby declare that this thesis entitled " **An Evaluation of the Internal Distribution Channels of Marine Fresh Fish in Quilon District** " is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship, or other similar title of any other University or Society.*

Mannuthy,
07-01-1991

Sebastian K.J.

SEBASTIAN, K.J.

CERTIFICATE

Certified that this thesis entitled **"An Evaluation of the Internal Distribution Channels of Marine Fresh Fish in Quilon District"** is a record of research work done independently by Mr. Sebastian, K.J. under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship to him.

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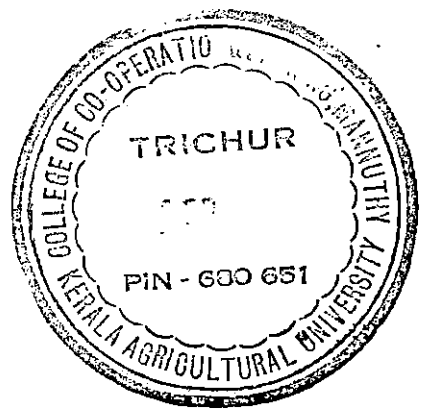
PHILIP SABU,
Assistant Professor.



Approved by :

Chairman : Mr. Philip Sabu, :
Assistant Professor,
College of Co-operation and Banking,
Mannuthy.

Members : 1.Dr. N. Rajan Nair, :
Associate Professor,
College of Co-operation and Banking,
Mannuthy.

2.Mr. K.P. Mani, :
Assistant Professor,
College of Co-operation and Banking,
Mannuthy.

3.Mr. N. Ravindranathan, :
Associate Professor,
College of Co-operation and Banking,
Mannuthy.

31/12/90

External Examiner : 31/12/90

DR. D. Rajasenan

COLLEGE OF CO-OPERATION & B.A. KING, MANNUTHY
KERALA AGRICULTURAL UNIVERSITY
TRICHUR
PIN - 680 651

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K.J. SEBASTIAN.

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INTRODUCTION

CHAPTER · I

INTRODUCTION

Kerala is endowed with a coastline of 590 km in the south-west part of the country. Fisheries provide sustenance to more than 9.11 lakh fisherfolk comprising of 77.5 per cent marine and 22.5 per cent inland fishermen in the state. The number of active fishermen in the state comes to 1.8 lakhs (Government of Kerala, 1988 a). In addition, it is estimated that 72,000 persons are gainfully employed in activites related to moving fish from fishermen to consumers (Kurien, 1984).

The total production of fish in Kerala during 1986 was 3.65 lakh tonnes of which the share of marine fish alone was 3.36 lakh tonnes (Appendix-I) which was 18 per cent of the total marine fish production in the country. Thus, in terms of both employment as well as total production, marine fisheries sector constitutes the core sector of the fishing industry.

The contribution of the fisheries sector to the net domestic product of Kerala during 1987-88 at current prices was Rs.127 crores which was 4.6 per cent of the contribution by the primary sectors of the

economy (Government of Kerala, 1988 a). Besides, during 1987-88, 35,576 tonnes of marine products valued at Rs.184 crores were exported from Kerala which constituted 36.61 per cent in quantity and 34.63 per cent in value of the country's marine products exports (Government of Kerala, 1988 b).

The marine fishing industry is concentrated in nine maritime districts of the state. Pathananthitta, Kottayam, Idukki, Palghat and Wynad are the districts which do no find a place in the marine fishing map of the state. Among the maritime districts, Quilon is having the highest production of marine fish with a share of 28 per cent of the total production. But, Quilon district is having the lowest share in the total coastline with 6.3 per cent of the total coastline. It shows high concentration of the marine fishing industry in Quilon district.

The marine fish landed in the landing centres/beach markets are taken to the consumers by the intermediaries. There are different distribution channels for the export, dry and fresh fish. But a major share of fish is marketed in the fresh form itself. Different types of intermediaries like auctioneers, wholesalers, commission agents, cycle/head-load fish distributors, women fish

distributors, retailers, etc. are involved in the physical flow of marine fresh fish from the landing centres to the consumers.

The marine fish markets in Kerala are not regulated by the government but are fully controlled by the private traders. The fish marketing is characterised by the existence of a large number of intermediaries. The number and type of intermediaries increase with the increase in the length of the distribution channels. The larger the number of intermediaries and longer the distribution channel, the greater will be the price-spread (Gupta et al., 1984). The intermediaries involved in the flow of fish from the landing centres to the consumers follow different marketing practices. Some of which are exploitative in nature. The highly perishable nature of fish coupled with the multiplicity of intermediaries with varying practices place the fishermen at a disadvantageous position in relation to the middlemen.

1.1 Objectives of the study

The present study is done with the following objectives;

1. To identify the existing distribution channels of selected species of marine fresh fish;

2. To analyse the nature, extent, and trade practices of intermediaries in the distribution channels of marine fresh fish; and

3. To estimate the price-spread under different distribution channels.

1.2. Scope of the study

There are a number of studies covering the biological technological, processing, culture, and economic aspects of fishing. A few macro level studies are also available on the marketing of marine fish. However, specific micro level studies on the distribution channels of selected species of marine fresh fish are conspicuous by their absence. The present study examines the share of marketing costs and margins and the share of fishermen in the consumer rupee. Incidently, it also analyses the variations in the pattern, of distribution channels, the extent of intermediation, and the marketing practices of the various intermediaries among the distribution channels in the neighbouring and distant markets.

1.3. Limitations of the study

The study covers only the internal distribution channels of marine fresh fish and precludes

from its scope the distribution channels of export fish, dry fish and inland fish. The fresh fish markets are highly unorganised and the transactions are 'oral' in nature. Neither the intermediaries nor any official agencies keep a systematic record of the activities in the markets. Naturally, the data collected from the intermediaries suffer from memory lapse as they had to recall the information. In addition, the apprehensions of the intermediaries about the use of the data might have resulted in the over stating of costs and under stating of prices and quantities handled by them. Several scores of middlemen are involved in the physical distribution of fresh fish from the landing centre to the consuming centre. But the present study covers only a small sample of 86 intermediaries. Since the field data pertains to the monsoon season only, the seasonal variations are not captured by the study.

1.4. Structure of the Report

The report comprises of six chapters. The first chapter gives the introduction of the study. The second chapter presents the review of literature. Chapter three describes the marketing system of marine fresh fish in Kerala. The fourth chapter provides the materials and methods of the study. The fifith chapter presents the results and discussion of the study. The summary of the study forms the sixth chapter, followed by references, appendices and abstract of the report.

CHAPTER II

REVIEW OF LITERATURE

In this chapter, an attempt is made to review some of the major research findings of the studies related to the area of study. The review of literature is classified into the following heads for easy comprehension:

1. Distribution channels,
2. Market intermediaries and trade practices, and
3. Price-spread.

2.1. Distribution Channels

Narayanan (1981) found that three main distribution channels exist for the movement of fish from the fishermen to the final consumer, viz., fishermen directly selling to consumers, fishermen selling through retailer to the consumer and the channel for prawn movement which included wholesaler-cum-commission agent before it reached the ultimate consumer.

Gupta et al. (1984) observed wide variations in channels of distribution of fish in Kerala from place to place. Generally, different market functionaries like auctioneers, agents, retailers, vendors, whole

salers, transporters, commission agents, etc. are involved in the distribution channels to link the producer and consumer.

Rajasenan (1987) indicated that a very common situation with the distribution channel of fish is that the intermediaries are willing to handle products from a limited number of suppliers. He also observed that the characteristic feature of the fish industry is the presence of a large number of distributors and there is intense competition for entry into the available distribution channels.

2.2. Market Intermediaries and Trade Practices

Kurien (1978) found that in fish marketing, each landing centre is a point where the marketable surplus is exchanged between fishermen and fish distributors. The fish distributors in turn operate through a net work of equally dispersed fish marketing hinterlands catering to consumers at walking and cycling distance from the shore and also in the most interior highlands of the state.

Gulathi (1979) remarked that although the Project under the Norwegian Aid Programme was aimed at modernising and developing all aspects of fishing including catching, processing, and distribution, distribution of fish did not receive much attention. It

was also found that since the use of ice for preservation was virtually unknown until recently, prices fluctuated violently, inversely with the quantum of catch. She was of the opinion that given the marketing system, dominated by the middlemen, the fishermen were the most vulnerable link in the chain. Traditionally, therefore, fishing meant nothing more than hand to mouth existence.

Kurien (1980) observed that the small scale fish distributors at different stages in the fish marketing channels handled about 90 per cent of the fish landed in the state. It was also found that the fishermen faced mainly two problems related to fish marketing. Firstly, lack of a proper mechanism controlled by the fishermen to determine fair prices for their fish and secondly, the inability on the part of the fishermen to collect from the fish distributors the legitimate dues accruing to them from sales transactions.

Bose (1981) found that fishermen had availed of both untied and tied credit from the middlemen. The acceptance of tied credit from intermediaries creates an element of bondage for the sale of fish through them.

Kurien (1981) estimated that 86 per cent of the total households in Kerala consume fish daily and over 80 per cent of them are rural consumers. Again, small fish distributors-women/men carrying fish on their heads, men

carrying fish on pingo poles/bicycles/canoes — account for the vast majority of persons involved in fish marketing in Kerala, who do this for their survival. He opined that fish reaches every nook and corner of a state with the most widely dispersed settlement pattern in India is a credit to the individual hardwork and the collective efficiency of this huge work force.

National Traffic Planning and Automation Centre (1981) found that fishermen use bamboo baskets and other crude forms of containers for packing. It was also revealed that the maximum quantity of fish was transported only upto 10 km and hardly 30 per cent was transported over 100 km. Regarding the use of vehicles, trucks were mostly used followed by tempos and cycles.

Narayanan (1981) observed that auction is the general mechanism through which price is settled in the shoreline. It was also found that the fishermen were totally unorganised and they carried out marketing individually which yielded far less prices. An organised co-operative marketing system was lacking.

Kurien et al. (1982) opined that compared to other states, the infrastructural development for internal fish marketing in Kerala is very poor and ignored. so, what we need is not the concerted efforts to increase fish production, but to distribute the catch fairly in the most efficient manner.

Gulathi (1983) found that the traditional method of processing fish-excess catch on peak days were alwasy salted and dried - is changed in favour of the use of ice for preserving fish. Now, it is iced immediately after it is taken out of the nets. In this conncetion, women have an important role in processing, freezing and trading of fish.

Kurien (1984) observed that 96 per cent of the fish sales in Quilon district is by way of auction. It was also found that proportionate shares of different intermediaries in the purchases made at the landing centres in Quilon like head-load distributors, cycle distributors, lorry merchants and exporters were 32, 24, 26 and 18 per cent, respectively. He also estimated that the share of internal neighbouring, internal distant, and export market in the marine fresh fish consumption in Quilon district were 19, 30 and 41 per cent, respectively.

Rajasenan (1987) observed that the neighbouring markets themselves consumed about 64 per cent of the total marine fresh fish production and the remaining 36 per cent was consumed by the markets located within a distance of 200 km from the landing centres in Kerala during 1983. The study also revealed that the problem of too many intermediaries in the

marketing of fish put both the producers and consumers at a dis advantageous position. The present system of marketing shows that collusion is rampant through out the system from the shore to the market. So, if maximisation of price differential is the middlemen's goal, collusion would be plausible.

Ramakrishnan (1987) found that none of the fish markets in the state is regulated by the government, but are controlled by the private merchants who exercise their influence on the producers. These private traders had seldom provided any linkage for the development of the fishing industry of Kerala by extending the market. This is, infact, one of the crucial factors which acted as a constraint for the development of the marine fishing industry of Kerala.

Pollane (1988) opined that in order to ensure people's participation in fishery development, the fish market is to be isolated from other marketing activities and away from the centre of population density. The fish market is to be isolated into linearly distributed stalls so as to communicate in contrast to the warm of interaction at the crowded beach selling point.

Kumar (1988) opined that since the fishermen's catch is the free bounty of nature, it had several manifestations like unfair prices for the fishermen's

catch, indebtedness to traders and money lenders, delay in payment by the merchants, etc. He found that the Kerala Fishermen's Agitation of 1984 forced the State Government to attempt an integrated development of the fisheries sector and the prime agent for this was the Kerala State Co-operative Federation for Fisheries Development Ltd. (Matsyafed). Matsyafed officials believe that the past efforts of the Government flopped merely because the fishermen's co-operatives were not genuine producers' organisations. So, now it can enter successfully in marketing also.

2.3. Price-spread

Directorate of Marketing and Inspection (1961) found that several factors like type of fish, size, weight, quantity, distance between producing and consuming centres, elasticity of demand, etc. were affecting the fresh fish prices.

Desai (1979) observed that price-spread is the difference between the price paid by the consumer and price received by the producer and it is made up of various costs incurred and margins of intermediaries in the various processes such as assembling, processing, storage, transportation, wholesaling and retailing.

Narayanan (1981) found that the fishermen's share in consumer rupee when fishermen sold directly to

consumers varied between 63 to 83 per cent depending upon the variety, and it varied between 40 to 78 per cent when sold through retailer. He opined that the institutional arrangement in the trade is the most important factor determining the price of fish in the market.

Ranade et al. (1982) observed that the share of farmers in the consumers' rupee in cotton marketing was higher in co-operative marketing channel (92 per cent) than that in the private channel (72 to 82 per cent). The study also established that the longer a channel, the marketing cost is the higher and correspondingly the producers' share is lesser in consumer rupee.

Venkataraman (1983) pointed out that even in the marketing of a product like coconut, the producers share in the price paid by the consumer was only 60 per cent.

Gupta et al. (1984) estimated that the fishermen's share in consumer price was the maximum, 95 per cent in direct sales to the consumer and the lowest 28 per cent in sales involving multilocational distribution system. This shows that the length of the distribution channel and the nature of the channel members influenced the price received by the fishermen.

Kurien (1984) observed that the fishermen's share in consumer rupee in the fish marketing channels of small-scale short distance movements varied from 75 to 90 per cent while the corresponding share in the fish marketing channels of bulk, long distance movements was 65 to 70 per cent. Fishermen's share in consumer rupee, when the fish is distributed through women fish distributors, cycle load distributors, and wholesale lorry distributors were 89, 81 and 66 per cent, respectively. Their corresponding marketing costs and marketing margins were 5, 4 and 19 per cent and 6, 15 and 15 per cent, respectively.

Rajasenan (1987) found that the fishermen's share in consumer rupee is quite high in case of local sales at landing centres mainly because they are free from the cost of packing, icing, transportation and other trade margins. The fishermen's share in consumer rupee in case of sales to consumption centres located away from the landing centres was very low since the price-spread between the various intermediaries like wholesalers, commission agents and retailers is very high. Another observation was that the fishermen's share is higher in high priced value species than in low priced species.

MARKETING SYSTEM OF MARINE FRESH FISH IN KERALA

CHAPTER III

MARKETING SYSTEM OF MARINE FRESH FISH IN KERALA

The term marketing system denotes the channel organisations involved in the physical flow of products from the producer to the final consumers. This chapter provides a macro-level view of the present marketing system of marine fresh fish in Kerala.

3.1. Structure of the industry

The fishing industry in Kerala basically consists of two sectors, viz., marine fisheries and inland fisheries. The inland fisheries sector is composed of 41 west flowing and three east flowing river systems along with a number of estuaries, lagooms, backwaters and fresh fish lakes comprising of 111 fishing villages altogether. Inland fisheries provide sustenance to nearly 2.05 lakh fisherfolk. The total area suitable for inland fisheries comes to 3.61 lakh hectares. The total production of fish by the inland fisheries sector in Kerala was 28.9 thousand tonnes during 1986 (Government of Kerala, 1987 b).

The marine fisheries sector can be classified into two sub-sectors, viz., the traditional and the mechanised sector. The traditional sector uses crafts like canoes and catamarams. The mechanised sector employs fishing crafts with small motors and a

variety of diesel engines, which are out-board or in-board. Similarly, mechanised sector commonly uses trawl nets purse-seines, drift/gill nets, boat-seines, hook and line, etc. The traditional sector, on the other hand, uses shore seines, traps, scoop nets, drift/gill nets, boat seines, etc. The traditional sector constituted the backbone of the industry with a production of 2.2 lakh tonnes during 1985 which was 66 per cent of the total marine fish production during the year (Government of Kerala, 1987 b).

3.2. Marine fish landings

Fish landing takes place in 220 landig centres all along the coast of Kerala in all seasons during day and night. The season-wise distribution of landings shows that the landings are the highest during the post-monsoon period (October to December) with 32 per cent, followed by monsoon (July to September) with 29 per cent, summer (January to March) with 22 per cent, and pre-monsoon (April to June) with 17 per cent of the total catch (CMFRI, 1987).

The total landings of marine fish in Kerala during 1988 was 3.75 lakh tonnes (CMFRI, Cochin). The species-wise distribution of marine fish landings in Kerala shows that 480 different species are landed, but a large number of them are neither edible nor commercially important. Only a limited number of species are commercially important.

The main species of marine fish landed in Kerala are oil sardines, mackerals, other sardines, ribbon fish, soles, sciaenids, cat fish, seer fish, pomfrets, and tunnies. To this, the penaeid prawns, which is mainly exported, may also be added. Of this, oil sardines, mackerals and prawns which are called economic species, constituted 50 to 60 per cent of the landings by weight and 66 per cent by value (Kurien, 1978).

The annual landings of oil sardines in Kerala during 1984 was 38 per cent of the total marine fish landings in the state which accounted for 78 per cent of the total oil sardines landed in the country. The mackerals landings in Kerala during 1984 was 11,712 tonnes which was three per cent of the total marine fish landings in Kerala and 33 per cent of the mackeral landings in the country. The state accounted for 26 per cent of the penaeid prawn landings in India during 1984 (CMFRI, 1987).

District-wise distribution of marine fish landings shows that Quilon is having the highest landings of 93,000 tonnes with 28 per cent share of the total landings of the state during 1988 (CMFRI, Cochin).

3.3. Consumption of Fish

Fish is an important item in the daily diet of the vast majority of people in Kerala. The per

capita annual consumption of fish in Kerala was 14.5 Kg in 1984 which was the highest in the country, (Government of Kerala, 1987). Of the total fish consuming households, the rural-urban split-up in Kerala is 84:16. Another estimate is that, of the total fish consuming households, 86 per cent of them consume fish daily and over 80 per cent of these daily consumers are rural consumers (Kurien, 1981).

3.4. Marketing of Marine Fresh Fish in Kerala

Marketing of marine fresh fish is similar to the marketing of any other agricultural commodity but for the degree of perishability, the nature of production, and the institutional set-up associated with it. Fish is highly perishable and the production and marketing systems are highly unorganised in nature. The unpredictability of the supply and the lack of homogeniety of the product also make fish marketing a difficult proposition than the marketing of any other commodity. The situation of Kerala fisheries with a large number of points of fish landings and the very spacially dispersed nature of the fish-eating population necessitate the existence of a large number of intermediaries of various tyeps to take the fish from the landing centres to the consumers.

Fish can be marketed in fresh form itself or in dried, canned or frozen form. The pattern of

consumption showed that 50 per cent of the fish landings in the state is consumed fresh, 33 per cent cured or dried and the remaining 17 per cent consisting mainly of high value prawns, is frozen or canned and exported (Government of Kerala, 1987 a). On this basis, the fish markets can be broadly classified into domestic market and export market. The domestic market can again be grouped into neighbouring and distant markets based on the distance of markets from the landing centres. The fresh fish markets and dry fish markets exist in both beighouring as well as distant markets. There are 62 wholesale markets of importance in Kerala, whose daily turnover varies from 10 to 25 tonnes, consiting of four exclusive dry fish markets and 58 exclusively fresh or fresh-cum-dry fish markets. There exist various types of intermediaries to take the fish from the landing centres to the neighouring or distant markets.

3.5. *Distribution Channels and Market Intermediaries*

Distribution channels of marine fresh fish can be defined as those organisations/intermediaries involved at various stages in the physical flow of marine fresh fish from the producer (fishermen) to the final consumer. Fish marketing involves the intervention of a large number of intermediaries of various types in between the fishermen and the final consumers.

The physical flow of marine fresh fish from the fishermen to the consumers through the intermediaries is broadly classified (John, 1984) into two:

1. *Small-scale short distance movements of fish from the fisheremen to neighbouring markets - markets within a radius of 10-20 Km from the landing centre; and*

2. *Bulk-long distance movements to distant markets - markets outside the range of 20 Kg radius from the landing centre where from the fish is again redistributed.*

The distribution channels of fresh fish do vary for different regions and also for different species of fish. But in general, the following distribution channels exist in the distribution of fresh fish in Kerala:

a. Neighbouring Markets

1. *Producer -> Auctioneer -> Cycle/head-load fish distributor -> Consumer.*

2. *Producer -> Auctioneer -> Women fish distributor -> Consumer.*

3. *Producer -> Auctioneer -> Retailer -> Consumer.*

b. Distant Markets

1. *Producer -> Auctioneer -> Wholesaler -> Cycle/head-load fish distributer -> Consumer.*

2. *Producer -> Auctioneer -> Wholesaler -> Retailer -> Consumer.*

3. *Producer -> Auctioneer -> Wholesaler -> Commission agent -> Cycle/head-load fish distributor -> Consumer.*

4. *Producer -> Auctioneer -> Wholesaler -> Commission agent -> Retailer -> Consumer.*

5. *Producer -> Auctioneer -> Commission agent -> Wholesaler -> Commission agent -> Cycle/head-load fish distributor -> Consumer.*

6. *Producer -> Auctioneer -> Commission agent -> Wholesaler -> Commission agent -> Retailer -> Consumer.*

The functioning of these different types of intermediaries to link the producer and consumer is given as follows:

1. *Auctioneers*

The auctioneers are operating at the landing centres/beach markets where they will auction the fish lots on behalf of the fishermen. Most of the

produce of the fishermen are disposed of through auctioneers who work for a commission which is collected from the fishermen.

2. Wholesalers

The wholesalers buy a number of small lots of fish from the fishermen at the landing contres through auction, pool the lots, transport them to the distant wholesale markets and then sell the fish in small convenient lots to the retailers and vendors through the commission agents.

3. Commission agents

The commission agents are usually operating in the distant wholesale markets. The wholesalers handover the entire fish to the commission agents and the commission agents sell the fish in small convenient lots through acution to the retailers and vendors. The sale proceeds are passed on to the wholesalers after deducting their commission. Sometimes, commission agents operate at the landing centres where they buy a number of small lots of fish from the auctioneers and pool the lots on behalf of the wholesalers.

4. Retailers

The retailers are the ultimate link in the fish distribution channel. They buy fish from the

auctioneers or from the commission agents or from the wholesalers and sell to the final consumers. They usually operate in the fish markets in villages as well as in urban centres.

5. Vendors

The fish vendors consist of women fish distributors and cycle/head-load fish distributors. The operations of fish vendore are similar to that of retailers except that they are engaged in door-to-door selling of fish. The fish vendors obtain their supplies from the fishermen through auctioneers at the landing centres or from the wholesalers or commission agents at the distant wholesale markets.

3.6. Role of Co-operatives

The first co-operative society for fishermen in the state was registered in 1917 with the objective of providing various fishing inputs including credit to the members. The co-operative societies at that time were organised on the basis of communities with separate societies for the Arayan and Valen (Hindu) and Christian fishermen. By 1933, there were 95 fishermen's co-operative societies with a membership of 8194 from the three communities. The performance of these co-operatives was very disappointing and the Government of Travancore through its co-operative

enquiry committee of 1934 studied the problems of fishermen's co-operatives and suggested various means of encouraging co-operative enterprise among fishermen (Kurian, 1980).

With the formation of the state in 1956, a three-tier structure for fishermen's co-operatives with primary credit societies or production societies at the village level, secondary societies at the district level to undertake the supply of fishing inputs and marketing of fish caught by the members of the primary societies, and an apex society to act as a co-ordinating agency at the state level, was established. The number of primary fishermen co-operative societies increased from 241 in 1958-59 to 1036 in 1973-74. But, they handled only one per cent of the total value of fish landings in Kerala during 1973-74. Of the total 1036 primary societies, 96 per cent of the societies were running at losses. Similarly, all the secondary and apex societies were also running at losses. In an effort to probe the fate of fishermen's co-operatives, the Governemtn of Kerala appointed an investigation committee called the Resuscitative Committee for Fishery Co-operatives in 1975. The committee found that most of these co-operatives were fefunct or inactive and recommended for the organisation of fishermen's service co-operatives in place of the existing societies at the

village level. The committee stressed the need to link credit with production and marketing (Kurien, 1980). The resuscitated fishery co-operatives also met with the same fate of their predecessors.

In 1980, 222 village level fishermen welfare societies were organised under the Kerala Fishermen Welfare Act, 1980 for the integrated development of the fisheries sector. Further, in 1984, the Kerala State Co-operative Federation for Fisheries Development Ltd. (Matsyafed) was organised as the state level apex body of the primary fishery co-operatives. Since then, the number of village level fishermen welfare societies was reduced to 81 by combining two or three societies and they were converted into Fishermen Development and Welfare Co-operatives affiliated to Matsyafed (Government of Kerala, 1988 a).

Even now the co-operatives do not undertake the direct marketing of marine fish in Kerala. Their role is limited to the provision of fishing inputs like country boats, fish nets, out-board motors and other inputs including credit to the fishermen members and also arrange for the sale of their catch through the auctioneers appointed by the co-operatives.

3.7. Marketing Practices

The process of fish marketing is characterised by the existence of some usual practices. These

practices do vary in different regions and also among various types of intermediaties. The most common practices followed by the fishermen and intermediaries while marketing fish are given below:

3.7.1. Sales at the beach market/landing centre

The fishermen bring their catch to the landing centre/beach market for sale. Even before reaching the landing centre, the crew on board itslef sort out the entire catch into different species, viz., exportable varieties and fish for domestic consumption. The fish for domestic consumption is again sorted into different species and size and arrange for their sale. The entire catch brought at the landing centre/beach market is put as heaps or baskets and are auctioned by the auctioneers as such without any weighing or grading. The auctioned lots are passed on to the various intermediaries like wholesalers, retailers, women fish distributors, and cycle/head-load fish distributors by the auctioneer after collecting the sales proceeds which is paid to the fishermen after deducting the commission.

3.7.2. Method of pricing

Auctioning, bargaining and fixed price sales are the most common methods of price setting in marine fish marketing. It is estimated that more than 90 per cent of fish sales in the landing centre/beach market is

through auction. Bargaining is generally practiced by the retailers and sometimes by the wholesalers for the sale of fish to retailers and vendors in distant markets, where there is no auctioning system. Fixed price sales is usally followed by the retailers and fish vendors in both neighbouring and distant markets.

3.7.3. Packing and preservation

The highly perishable nature of fish necessitates appropriate packing and preservation without which the fish will get spoiled. Usually, bamboo baskets and baskets made of coconut or palm leaves are used for packing fish in the landing centre. Ice is the only preservative used for the preservation of fresh fish. Cold storage facilities are also made use of, sometimes, by the retailers operating in the retail markets.

3.7.4. Transportation system

The transportation system of marine fresh fish in Kerala can be classified into two categories depending on the distance between the production and consumption centres. Firstly, fish is transported by head-load, cycle, autovans and boats to the neighbouring markets. This system developed mostly because of many retailers and vendors operating in the neighbouring markets. Secondly, fish is transported by tempos, trucks and railways to the distant markets.

3.7.5. Provision of credit

Credit is necessary for the marketing of marine fish. It is a source of working capital for the intermediaries operating in the marketing of marine fish. The wholesalers act as a major source of finance to the fisherman. Besides, the institional agencies like commercial banks, co-operative banks, and the Kerala State Financial Corporation, provide financial assistance to the fishermen and to the intermediaries for undertaking the fish marketing activities. In the marketing process auctioneers extend credit to the fishermen. Similarly, the commission agents extend 24 to 48 hours credit to the retailers and vendors and the wholesalers also sometimes give credit to the commission agents.

3.7.6. Title to goods

In the process of marketing fish, all the intermediaries do not take the title to goods. On this basis the intermediaries can be grouped into two categories - merchant middlemen and agent middlemen. Merchant middlemen are those who take the title to goods and consists of the wholesalers, retailers and vendors. Agent middlemen are those intermediaries who do not take the title to goods, but only help in the exchange process and consists of auctioneers and commission agents.

Thus, it can be observed that fish marketing is characterised by the existence of a number of distribution channels with a very large number of intermediaries of various types with varying practices. So, an evaluation of the distribution channels and the practices of intermediaries will help to improve the existing marketing system of marine fresh fish.

MATERIALS AND METHODS

CHAPTER IV

MATERIALS AND METHODS

In this chapter, the materials and methods adopted for data collection and analysis are presented under the following sections:

1. Study area
2. Sampling procedure
3. Analytical tools and techniques
4. Definition of terms and concepts

4.1. Study Area

The study area was confined to Quilon district of Kerala state which is the maritime district having the highest production of marine fish in the state (Appendix - II). Though Quilon district accounted for only 6.3 per cent of the total coastline (Appendix - III) in the State, its contribution to the total marine fish production in the state is estimated to be 28 per cent in 1988 (Central Marine Fisheries Research Institute - CMFRI, Cochin). In addition, Neendakara - Sakthikulangara which is the largest single landing centre in the state is also situated in Quilon district. Neendakara is an all-season mechanised fish landing centre with a production of 63,000 tonnes in 1988 (CMFRI, Cochin) which was 17 per cent of the total landings in Kerala and 70 per cent of the landings in Quilon district.

4.2. Sampling Procedure

The sampling procedures adopted for the selection of landing centres, intermediaries, and species of fish are discussed seperately.

4.2.1. Selection of landing centres

There are 26 fish landing centres in Quilon district (Government of Kerala, 1983). Out of these, Neenandakara, Vady and Puthenthura were selected as samples to represent a large, medium, and a small landing centre, respectively. Neendakara is selecteed as it is the largest marine fish landing centre in the district based on the catch data (in tonnes) provided by the CMFRI, Cochin for the year 1988. Since catch data for the other landing centres in the district were not available from the CMFRI or from the Department of Fisheries, Vady and Puthenthura were selected purposively.

4.2.2. Selection of intermediaries

For the selection of intermediaries, the marine fresh fish markets are divided into neighbouring markets and distant markets on the basis of distance from the landing centres. Neighbouring markets are the markets within a radius of 10 - 20 Km from the landing centre and the distant markets are those markets outside the range of 20 Km radius from the landing centre.

The total population of intermediaries intervening in the various distribution channels of marine fresh fish in the neighbouring and distant markets was not available from either records or from earlier studies. But, earlier studies have observed that more than 60 per cent of the total marine fresh fish landings in the state is consumed by the neighbouring markets (Rajasenan, 1987). In addition, the personal observations in the markets also revealed that the number of intermediaries are more in the neighbouring markets than in the distant markets. Hence, it was decided to select a smaple of 110 intermediaries by giving due representation to various types of intermediaries. Accordingly, five intermediaries each were selected from each category of intermediaries in the neighbouring markets of the three selected landing centres. Similarly, 10 intermediaries each were selected from each category of intermediaries in the distant markets. The composition of the sample of intermediaries is given below:

Sl. No.	Type of intermediary	Number	
		Neighbouring Markets	Distant Markets
1.	Fresh fish Vendors:		
	a. Cycle/head-load fish distributors	15	10
	b. Women fish distributors	15	10
2.	Retailers	15	10
3.	Wholesalers	--	10
4.	Auctioneers	15	--
5.	Commission agents	--	10
	Total	60	50

Further, the selection of the respondents in each category was subject to their availability and willingness to co-operate with the study. Therefore, the actual sample size was reduced to 86 intermediaries only. In the neighbouring markets of Puthenthura landing centre, only one auctioneer and five retailers were surveyed. Similarly, women fish distributors were not surveyed in the distant markets due to their non-availability.

4.2.3. Selection of species

For the selection of sample species of fish for the study, the various species of fish used for domestic consumption were grouped as low, medium and high value species of fish on the basis of beach price data collected from the Department of Fisheries (Appendix - IV). Then, two species of fish each were selected from every group of fish based on their availability in the neighbouring and distant markets. Accordingly, the following species of fish were selected as the sample for the study.

a. Low value species:

1. Red mullets (Kilimeen)
2. Oil sardines (Ney chala)

b. Medium value species:

1. Mackerals (Ayala)
2. Tunnies (Chura)

c. High value species:

1. Pomfrets (Avoli)
2. Seer fish (Nemeen)

4.3. Analytical Tools and Techniques

While looking for the techniques to be used for data collection, it is to be noted that in

the realm of fish marketing the data available from secondary sources are very minimum. At best it may be possible to avail of an average shore/beach price and an average retail market price for certain selected species of fish. But, this is quite insufficient to assess the manner in which the price-spread is allocated between the marketing costs and margins of those involved in the trade.

Therefore, the primary data required for the study were collected from the market intermediaries through personal interview with the help of a pre-tested structured schedule (See Appendix - IX). The field survey was conducted during the monsoon season (July to September), 1990 which was neigther the peak nor the slack period. The data regarding the quantity of fish bought from the auctioneers by different types of intermediaries were collected from the auctioneers for a period of three days each in the beach markets of the three sample landing centres. Similarly, in the distant markets, the data relating to the details of the quantity sold to the cycle/head-load fish distributors and retailers by the wholesalers were collected from the wholesalers for a period of three days each. In addition, enquiries made with the different market functionaries and systematic personal observations made in the sample landing centres and markets also supplemented the primary date collection.

In order to identify the relative importance of various distribution channels in the physical flow of fish, the share of different intermediaries in percentages in the total sales of the auctioneers in the three landing centres were used. Similarly, in the distant markets, the share of different intermediaries in percentages in the total sales of the wholesalers were used.

The nature, extent and trade practices of intermediaries in the distribution channels were analysed with the help of the data collected through personal interview. The nature and practices followed by the intermediaries like purchases, sales, transportation, grading, preservation, credit, risk-bearing, etc. were analysed with the help of simple statistical techniques based on averages, percentages and ratios.

For estimating the intermediary-wise and species-wise price-spread, data on marketing costs and prices were utilised. The three widely accepted methods for computing price-spread are;

a. *by selecting specific lots or consignments of the product and tracing them through the marketing system and computing margins at each stage, it is called consignment method.*

b. by comparing prices at different levels of marketing, at the same point of time and then finding out the margins of intermediaries after deducting the ascertainable costs from the gross margin, it is called concurrent margin method; and

c. by calculating average gross margins from the money value of purchases made and the number of units transacted by each marketing agency involved in the channel, it is called lagged margin method.

Owing to the inherent difficulties in using consignment and lagged margin methods, a variant of the concurrent margin method was employed to estimate the price-spread in the present study. Since it was not possible to collect the prices at different stages of marketing at the same point of time, the monthly average prices of different species of fish at different stages of marketing were used for computing the price-spread. Ranade et al., Indian Institute of Management, Ahmedabad (1982) and Rajasekharan, Kerala Agricultural University, Vellanikkara (1987) employed this method for estimating the price-spread of cotton and cashewnut, respectively.

For estimating the price-spread, it was assumed that the price received by the fisherman is the

sales price of the auctioneers minus his commission. Similarly, the price paid by the consumer was taken as the sales price of the cycle/head-load fish distributors or women fish distributors or retailers as the case may be. For calculating the species-wise price-spread, the marketing costs were allocated to the various species of fish on the basis of their proportionate share in the total quantity handled by various intermediaries.

4.4. Definition of Terms and Concepts

The definition of some of the important terms and concepts used in the study are given below:

4.4.1. Distribution channel

Distribution channel is defined as those organisations/intermediaries involved at various stages in the physical flow of fish from the fishermen to the final consumers.

4.4.2. Intermediary

An intermediary is one who performs some specialised services that are directly related to the purchase and sale of fish in the process of their flow from fishermen to final consumers. In the process, he may either take title to fish or directly aid the transfer of ownership - merchant or agent.

4.4.3. *Marketing cost*

Marketing cost consists of all items of expenditure incurred by the intermediaries in transfering fish from the fisherman to the consumer. These are the costs for performing various marketing functions such as transporting, storing, processing, selling and other related activities.

4.4.4. *Price-spread*

Price-spread is the difference between the price received by the fisherman (producer) and the price paid by the final consumer. Thus, it is the producer-consumer-price-variance. It is the sum total of various marketing costs and margins of intermediaries at different stages of marketing.

4.4.5. *Gross marketing margin*

Gross marketing margin is the difference between the purchase price and sales price of a particular type of intermediary.

4.4.6. *Net marketing margin*

Net marketing margin is the difference between the marketing costs and gross marketing margins which consists of profits of various intermediaries in the distribution channel.

RESULTS AND DISCUSSION

CHAPTER V

RESULTS AND DISCUSSION

This chapter is divided into four sections. The first section deals with the identification of the distribution channels of marine fresh fish. The second section analyses the nature of various intermediaries in the distribution channels. The thrid section is about the trade practices followed by the intermediaries. The last section estimates the price-spread of selected species of fresh fish.

5.1. Structure of the Markets

The distribution channels of marine fresh fish begin from the beach markets associated with the landing centres. Naturally, the identification of various distribution channels for marine fresh fish is also undertaken from the beach markets of the selected landing centres.

Neendakara, the largest landing centre in the district, is located seven kilometers away in the north-west part of Quilon. Neendakara is a mechanised landing centre where mechanised boats, country boats and catamarams land fish day and night. The commonly used gears are trawl nets, perse-seines, drift/gill nets, boat seines, ring seines, hook and line, etc. The main species

of fish landed in Neendakara are mackerals, oil sardines, red mullets, tunnies, seer fish, pomfrets, etc. along with the high value prawns which is mainly exported.

The auction hall of the Neendakara beach market is owned by the Port Trust. The fish lots are auctioned day and night by the private auctioneers and the auctioneers appointed by the Fishermen Development and Welfare Co-operatives. The auctioneers do business during certain hours of the day which match with the fish landing time of their clients. The clients of the auctioneers appointed by the Fishermen Development and Welfare Co-operatives are mainly the beneficiary members of the society. The auctioned lots are handed over to the various types of intermediaries like cycle/head-load fish distributors, women fish distributors, retailers, wholesalers, etc. The entry in the beach market is subject to the payment of entrance fee. The entrance fee is paid by the auctioneers and women fish distributors in the form of licence fee to the Port Trust monthly. All other intermediaries are paying entrance fee to the Neendakara Port Trust for every entry into the market. Separate fee is charged for the entry of vehicles and different rates of toll exist for different types of vehicles with fish. The wholesalers are paying toll. The retailers buying fish from Neendakara beach market are

selling fish in the neighbouring retail markets in the villages owned by the panchayats. So, they have to pay daily rent/toll to the panchayat. The cycle/head-load fish distributors and women fish distributors are not paying any market fee other than the entrance fee paid in the beach market of the landing centre.

Vady is a medium sized landing centre situated three kilometers away in the north-west part of Quilon. Small types of country boats, canoes and mechanised boats are landing fish in Vady using various gears like shore seines, boat seines, traps, scoop nets, drift/gill nets, hook and line, etc. The main species landed in Vady consists of mackerals, tunnies, pomfrets, seer fish, oil sardines, carangids, silverbellis, etc. The beach market in Vady is not owned by any authority. But, it is functioning in an open space in the beach itself. The fish landing takes place during 6 a.m. to 10 a.m. and 5 p.m. to 9 p.m. The fish landings are sold through the private auctioneers and auctioneers appointed by the Fishermen Development and Welfare Co-operative Society. The auctioned lots are handed over to the cycle/head-load fish distributors, women fish distributors, retailers and wholesalers. The retailers sell in the neighbouring retail markets owned by the municipality or panchayat in the urban and rural areas respectively after paying the toll or rent. The cycle/head-load fish distributors and

women fish distributors sell fish in the neighbouring markets without paying any market fee. The wolesalers on the other hand conduct the fish to distant markets for sale.

Puthenthura is a small traditional landing centre located nine kilometers away in the north-west part of Quilon. On an average 40 to 60 catamarams land fish in Puthenthura using traps, scoop nets, drift/gill nets and hook and line. The main species landed in Puthenthura are carangids, silverbellis, tunnies, mackerals, pomfrets, seer fish, etc. The beach market in Puthenthura is a rural open space near the sea shore itself which is not owned/controlled by any authority. The fish landing takes place during 7 a.m. to 9 a.m. and 6 p.m. to 8 p.m. The landings are sold through the only one private auctioneer functioning there. Retailers alone are buying fish from the auctioneer. They are not paying any market fee in the beach market. They sell fish in the neighbouring retail markets owned by the panchayat. The rent is paid to the panchayat on a daily basis. Other types of intermediaries are absent due to the small quantity of fish landed at the market.

The distant markets covered for the study are Paripally, Punalur, Kottarakkara and Anchal. Observations regarding the marketing activities in the distant

markets show that the fish lots of the wholesalers are auctioned by the commission agents during 7 a.m. to 9 a.m. The auctioned lots are passed on to the cycle/head-load fish distributors and to the retailers. It is observed that 50 per cent of the commission agents have separate buildings for carrying out their activities. All of them are hired ones. The wholesale market in Punalur is owned by the municipality while the wholesale markets in Kottarakkara and Anchal are owned by panchayats. The wholesale market in Paripally is on a road side which is not owned by any authority. The cycle/head-load fish distributors in all these markets are not liable to pay any market fee. While the wholesalers are paying toll daily based on the quantity handled by them to the municipality or panchayat except those in the Paripally market. The retailers operating in the wholesale market itslef need not pay any market fee since it is paid by the wholesalers. But the retailers operating in other retail markets are paying rent or toll to the panchayats.

5.1.1. Physical flow of marine fish to different markets

The fish landed in each beach market is channeled to the fresh fish markets, dry fish markets and export markets. The share of these markets in the physical flow of marine fish from the beach markets is presented in Table 5.1.

Table 5.1. Share of different markets in the physical flow of marine fish (in kilogram)

Markets	Beach markets			Total
	Neendakara	Vady	Puthenthura	
Fresh fish market	770 (83)	404 (94)	222 (100)	1396 (88)
Dry fish market	121 (13)	26 (6)	--	147 (9)
Export market	37 (4)	--	--	37 (3)
Total	928(100)	430(100)	222 (100)	1580 (100)

Note: 1. The quantity given represents the daily average quantity handled by the auctioneers.

2. Figures in parenthesis indicate percentage to total.

Table 5.1. underlines the fact that in the physical flow of marine fish, a major portion is occupied by the fresh fish markets. Considerable variation is noticed in the composition among the beach markets. The variations in the physical flow of fish to different markets are due to the variations in the quantity of fish landed in the various beach markets. The share of fresh fish markets is 83, 94, and 100 per cent in the beach markets of Neendakara, Vady and Puthenthura, respectively.

Similarly, the share of dry fish markets is 13 per cent in Neendakara and six per cent in Vady, while it is absent in Puthenthura. Relatively small quantity of fish is landed in Puthenthura which is wholly flowed to the fresh fish markets. The small quantity of export fish landed in Vady entered the export market after being taken to Neendakara beach market.

5.1.2. Distribution channels of fresh fish

The different distribution channels for marine fresh fish in Quilon district is identified separately for both neighbouring and distant markets. The proportionate share of the neighbouring and distant markets in the total marine fresh fish distribution is estimated to be 59 and 41 per cent, respectively. The landing centre-wise analysis showed that the proportionate share of neighbouring markets in Neendakara, Vady and Puthenthura is 45, 68 and 100 per cent, respectively. The share of distant markets is comparitively high in Neendakara. This can be attributed to the fact that the wholesalers in distant markets prefer Neendakara to Vady and Puthenthura because of the large quantity of fish available there. The price may also be a critical factor in the selection of the landing centre. This is because as the fish is highly perishable there is an inverse relationship between the quantity supplied and the price received by the fishermen.

The distribution channels identified for fresh fish in Quilon district is given in Fig. 5.1

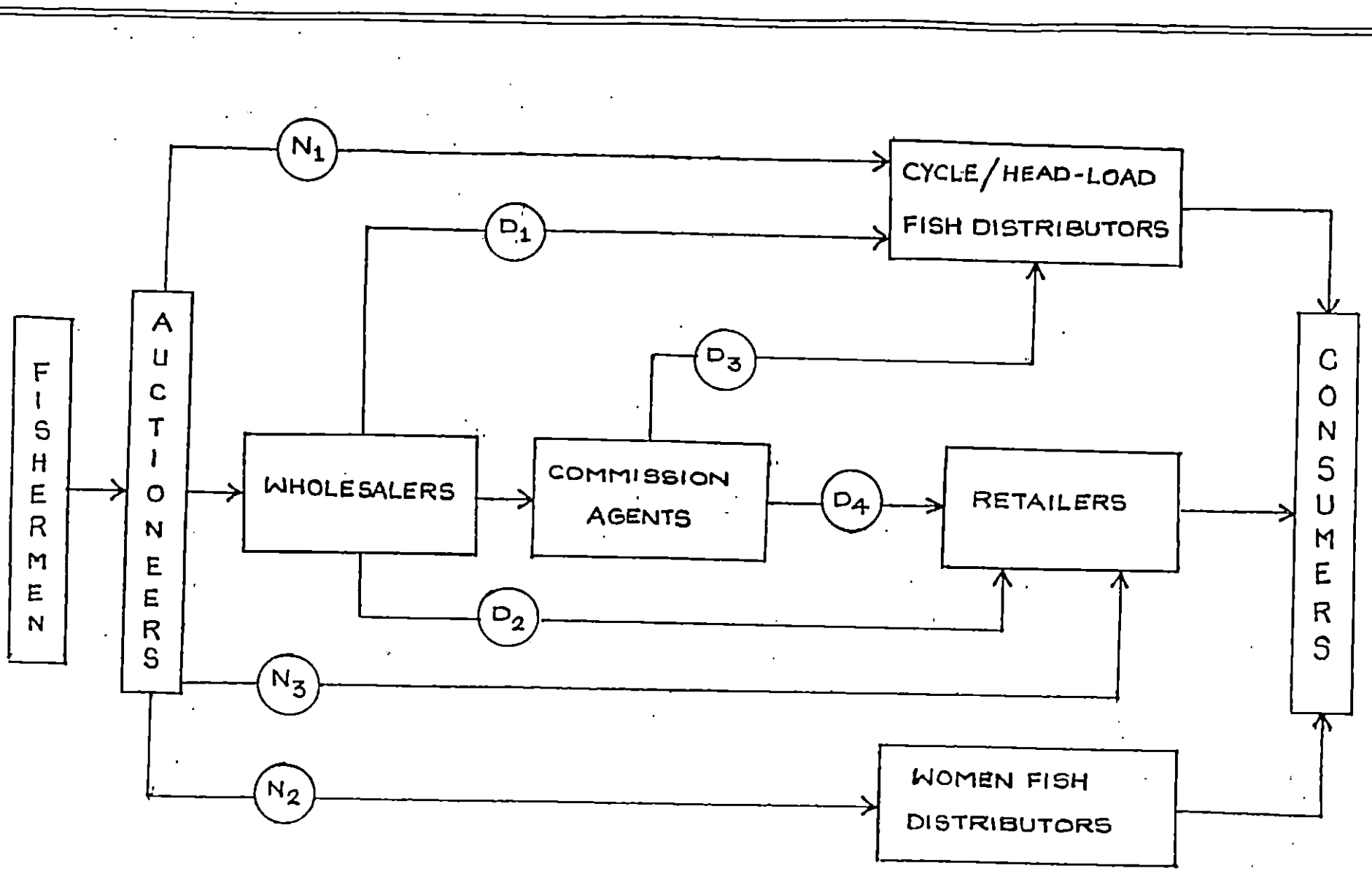


FIG. 5.1. DISTRIBUTION CHANNELS OF MARINE FRESH FISH IN QUILON DISTRICT.

Fig. 5.1. indicates the following distribution channels for marine fresh fish:

N_1 - *Fishermen -> Auctioneer -> Cycle/Head-Load Fish Distributor -> Consumer*

N_2 - *Fishermen -> Auctioneer -> Women Fish Distributor -> Consumer*

N_3 - *Fishermen -> Auctioneer -> Retailer -> Consumer*

D_1 - *Fishermen -> Auctioner -> Wholesaler -> Cycle/Head-Load Fish Distributor -> Consumer*

D_2 - *Fishermen -> Auctioneer -> Wholesaler -> Retailer -> Consumer*

D_3 - *Fishermen -> Auctioneer -> Wholesaler -> Commission Agent -> Cycle/Head-Load Fish Distributor -> Consumer*

D_4 - *Fishermen-> Auctioneer -> Wholesaler -> Commission Agent -> Retailer -> Consumer*

In the distribution channels given above, N_1, N_2, *and* N_3 *represent distribution channels in the neighbouring markets and* D_1, D_2, D_3 *and* D_4 *represent distribtution channels in the distant markets.*

The relative importance of these channels in the distribution of fresh fish is examined with respect to their share in the total distribution. The share of different distribution channels of fresh fish in the neighbouring markets is given in Table 5.2.

Table 5.2. Share of different distribution channels of fresh fish in neighbouring markets

(in kilogram)

Sl. No.	Channels	Share			
		Neendakara	Vady	Puthenthura	Total
1	N_1	208 (50)	87 (30)	--	295 (32)
2	N_2	58 (14)	114 (39)	--	172 (18)
3	N_3	150 (36)	90 (31)	222 (100)	462 (50)
	Total	416 (100)	291 (100)	222 (100)	929 (100)

Note: Figures in parenthesis indicate percentage to total.

Table 5.2. indicates that N_3 is the most important distribution channel in the neighbouring markets as a whole. However, three different channels are of importance to the three different beach markets. When N_1 is the most important channel in Neendakara, N_2 is having a slight edge over the other two channels in Vady. In Puthenthura, N_3 alone is existing and other channels are absent. The absence of cycle /head-load distributors and women fish distributors in Puthenthura can be attributed to the fact that sufficient quantity fish for them is not available there.

The share of different distribution channels of fresh fish in distant markets is given in Table 5.3.

Table 5.3. Share of different distribution channels of fresh fish in distant markets

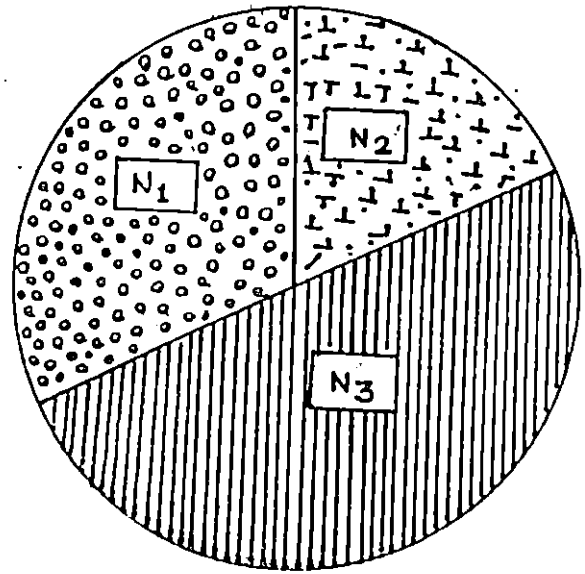
(in kilogram)

Sl. No.	Channels	Share				
		Paripally	Punalur	Kottarakkara	Anchal	Total
1.	D_1	14 (2)	86 (6)	76 (5)	52 (3)	228 (4)
2.	D_2	7 (1)	244 (17)	167 (11)	35 (2)	453(8)
3.	D_3	423 (59)	602 (43)	731 (48)	708 (41)	2464(46)
4.	D_4	273 (38)	501 (35)	548 (36)	933 (64)	2257(42)
Total		717 (100)	1433 (100)	1522(100)	1728(100)	5400(100)

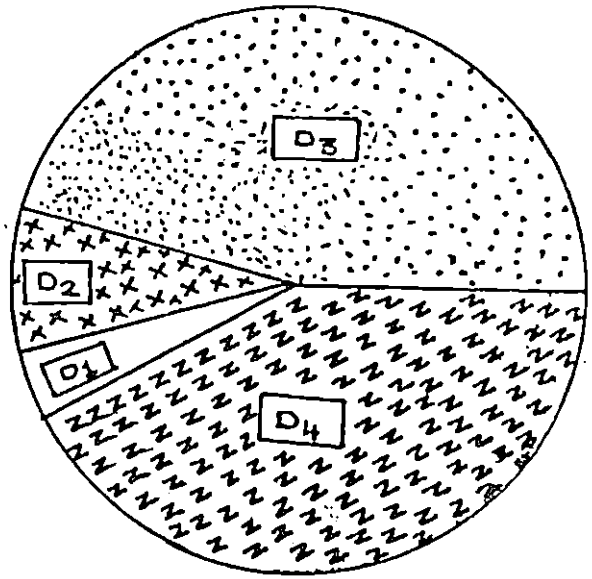
Note: Figures in parenthesis indicate percentage to total.

Table 5.3 shows that D_3 followed by D_4 are the most important channels with comparitively higher share in the distribution in distant markets. The share of D_1 and D_2 is comparitively low since they exist only in markets where there is no commission agents due to the relatively small quantity transacted. In these two channels, the wholesalers directly sell to the cycle/head-load fish distributors and to the retailers. The pattern is the same for all the distant markets except Ancal, where the share of D_4 is more than the share of D_3. This is mainly due to the existence of a large number of retailers than the cycle/head-load fish distributors in Anchal market.

FIG. 5.2. SHARE OF DIFFERENT DISTRIBUTION CHANNELS OF MARINE FRESH FISH



NEIGHBOURING MARKETS



DISTANT MARKETS

5 1.3. Species-wise distribution channels

The distribution channels also vary with the different species. Species-wise distribution channels identified are given in Table 5.4

Table 5.4. Species-wise distribution channels

Species	Distribution channels
Red mullets	N_3; D_1; D_2; D_3; and D_4
Oil sardines	N_1; N_2; N_3; D_1; D_2; D_3; and D_4
Mackerals	N_1; N_2; N_3; D_1; D_2; D_3; and D_4
Tunnies	N_1; N_2; N_3; D_2; and D_4
Pomfrets	N_1; N_3; D_2; and D_4
Seer fish	N_3; D_1; D_2; D_3; and D_4

Table 5.4 indicates that all the species are not distributed through all the distribution channels. Oil sardines and mackerals are present in all the channels. The species-wise variations in distribution channels occur because some of the intermediaries specialise in particular species of fish based on the availability and preferences of their customers.

5.2. Nature of Intermediaries

Fish marketing is considered to be as old as fishing itself. Fish marketing activity involves the intervention of some middlemen or intermediaries as most of the fishermen have neither adequate time to take care of the marketing of their catch nor do they possess the necessary business acumen and knowledge of the market conditions. Naturally, different types of intermediaries like auctioneers, cycle/head-load fish distributors, women fish distributors, wholesalers, commission agents and retailers provide the link between the fishermen and the consumers. In order to get a comprehensive picture of the nature of intermediaries engaged in fish marketing, an analysis of their profile is inevitable.

It is estimated that 98 per cent of the intermediaries engaged in fish marketing undertake this activity as a regular occupation. Interestingly, those who undertake fish trade as an occassional business are also engaged in activities connected with fishing or fish processing like net making, peeling of prawns, etc.

5.2.1. Experience of intermediaries

Since fish marketing is a traditional activity, the intermediaries are expected to be experienced hands in the field.

Table 5.5. Distribution of intermediaries according to experience

Experience (years)	Number of Intermediaries		
	Neighbouring market	Distant market	Total
1-5	14 (30)	5 (13)	19 (22)
6-10	21 (46)	10 (25)	31 (36)
11-15	9 (20)	15 (37)	24 (28)
16-20	2 (4)	10 (25)	12 (14)
Total	46 (100)	40(100)	86 (100)

Note: Figures in parenthesis indicate percentage to total.

Table 5.5 shows that 64 per cent of the intermediaries are having an experience of 6-15 years. It also indicates that fish marketing is more traditional among the intermediaries in the distant markets than those in the neighbouring markets. This fact is reinforced by the age-wise distribution of intermediaries given in Table 5.6.

Table 5.6. Age-wsie distribution of intermediaries

Age (years)	Number of Intermediaries		
	Neighbouring market	Distant market	Total
20-29	8 (17)	1 (3)	9 (10)
30-39	21 (46)	20 (50)	41 (48)
40-49	15 (33)	17 (43)	32 (38)
50 and above	2 (4)	2 (4)	4 (4)
Total	46 (100)	40 (100)	86 (100)

Note: Figures in parenthesis indicate percentage to total

It can be seen from Table 5.6 that maximum number of intermediaries are in the age group of 30-49 years which constitutes 86 per cent of the total number of intermediaries. Intermediaries in the age group of 20-29 years is 17 per cent in the neighbouring markets and three per cent in the distant markets. Again, those who are in the age group of 40-49 years is only 33 per cent in the neighbouring markets while it is 43 per cent in distant markets. Thus, it is clear that fish marketing is more traditional among the intermediaries in the distant markets than in the neighbouring markets. In the neighbouring

markets more intermediaries are entering fish marketing not as a tradition but as an occupation for their livelihood.

5.2.2. Religion of intermediaries

Marketing of fish is a traditional activity in the hands of people belonging to certain religions. The religion-wise distribution of intermediaries is given in Table 5.7.

Table 5.7. Religion-wise distribution of intermediaries in fish marketing

Religion	Number of Intermediaries		
	Neighbouring markets	Distant markets	Total
Muslims	23 (50)	39 (97)	62 (72)
Christians	12 (26)	1 (3)	13 (15)
Hindus	11 (24)	--	11 (13)
Total	46 (100)	40 (100)	86 (100)

Note: Figures in parenthesis indicate percentage to total

Table 5.7 indicates that Muslim religion is the most prominent religion of intermediaries engaged in the marketing of fish followed by Christians and Hindus. In

the neighbouring markets, there is no dominance of any one religion while in the distant markets, Muslims are dominating.

Among Christians, Latin Catholics alone are engaged in fish marketing. Similarly, among Hindus, the castes involved are Arayas, Deevaras and Ezhavas. Their proportionate share is 36, 55 and nine per cent, respectively.

5.2.3. Daily working time

The daily working time of the intermediaries is worked out separately for each type of intermediary in the neighbouring and distant markets and presented in Table 5.8.

Table 5.8. Average daily working hours of intermediaries

(in hours)

Type of Intermediary	Working Time		
	Neighbouring markets	Distant markets	Total
Auctioneers	7.5	-	7.5
Commission agents	-	5.3	5.3
Wholesalers	-	5.3	5.3
Women fish distributors	8.0	-	8.0
Cycle/head-load fish distributors	8.8	10.2	9.5
Retailers	10.3	13.5	11.9

Table 5.8 shows that the average daily working time of wholesalers and commission agents is comparitively low. It also indicates that among the different types of intermediaries, retailers are working for the highest number of hours a day followed by cycle/head-load fish distributors, women fish distributors and auctioneers. The working time of the retailers and cycle/head-load fish distributors is more in distant markets than in the neighbouring markets.

It is observed that for all types of intermediaries, except commission agents and wholesalers, fish marketing is a self employment activity. For the wholesalers and commission agents, fish marketing is a business. It may be noted that on an average, the commission agents and wholesalers employ three labourers daily of which the ratio of full-time and part-time labourers is 13:8.

5.2.4. Extent of intermediation

The extent of intermediation analyses the number of hands involved in the transfer of fish from the fishermen to the final consumer. It is observed that between the fishermen and the consumer, marine fresh fish passes through two to four hands. But in the neighbouring markets, only two hands are intervening in between the producer and the consumer, viz., auctioneer and

cycle/head-load fish distributor or women fish distributor or retialer. On the contrary in the case of distant markets, three to four intermediaries are involved betwween the fishermen and the consumer, viz., auctioneer, wholesaler, cycle/head-load fish distributor or retailer and commission agents.

5.3. Trade Practices of Intermediaries

This section analyses the practices followed by the intermediaries in the marketing of fish.

5.3.1. Purchase of fish

Fish is bought through auction by all the intermediaries except the cyle/head-load fish distributors and retailers in the distant markets (in channel D_1 and D_2). The cycle/head-load fish distributors in channels D_1 and D_2 are operating in the markets where commission agents are absent due to the relatively small quantity transacted that too only occasionally. Thus, they buy fish from the wholesalers directly by way of bargaining.

Regarding the frequency of purchase of fish, it is observed that 78 per cent of the intermediaries purchase fish once in a day and the rest twice in a day. The frequency of purchase is influenced by the distance between

the landing centre and the consuming market. The practice of purchasing fish twice a day is prevelant among the intermediaries in the neighbouring markets only. It is practiced by the cycle/head-load fish distributors, women fish distributors and retailers. In the distant markets, all the intermediaries purchase fish only once in a day.

An analysis of the time of purchase indicates that those who buy twice a day buy fish in the morning and evening. Regarding those who buy fish once in a day, it shows that 90 per cent of them buy fish in the morning and the remaining 10 per cent in the evening.

All the intermediaries in the neighbouring markets buy fish for cash alone. But in distant markets, both cash and credit purchases are practiced. The intermediary-wise purchases for cash and on credit is given in Table 5.9.

Table 5.9. **Intermediary-wise mode of purchase in distant markets**

Type of Intermediary	Number of Intermediaries		
	Cash	Credit	Total
Wholesalers	10 (100)	--	10 (100)
Commission agents	10 (100)	--	10 (100)
Cycle/head-load fish distributors	3 (30)	7 (70)	10 (100)
Retailers	4 (40)	6 (60)	10 (100)

Note: Figures in Parenthesis indicate percentage to total

Table 5.9 indicates that all the wholesalers and commission agents are making purchases for cash, while a major share of the cycle/head-load fish distributors and retailers are purchasing fish on credit. This practice suits well the financial soundness of the wholesalers and commission agents and poor financial position of cycle/head-load fish distributors and retailers. The cycle/head-load fish distributors pay for the purchase after realising the sale proceeds. The normal period of credit is 24 hours.

5.3.2. Transportation of fish

It is observed that the purchase place and selling place are different for all intermediaries except auctioneers and commission agents. Therefore, the distance between the purchase and selling places is an important consideration in the physical distribution of fish. The average distance between the purchase and selling place of intermediaries is given in Table 5.10.

Table 5.10. ***Average distance between purchase and selling places of intermediaries***

(in kilometer)

Type of Intermediary	Distance		
	Neighbouring market	Distant market	Total
Wholesalers	-	47	47
Cycle/head-load fish distributors	11	9	10
Women fish distributors	9	-	9
Retailers	8	5	7

Table 5.10. indicates that the wholesalers cover the longest distance. All other intermediaries are operating within a radius of not more than 11 km. It may also be noted that the cycle/head-load fish distributors and retailers in the neighbouring markets are covering more distance than their counterparts in the distant markets. This is necessitated because of the large number of cycle/head-load fish distributors and retailers in the neighbouring markets and the greater degree of competition among them unlike the distant markets.

The intermediaries employ different modes of transport to cover the distance between the purchase and selling places. The different modes of transportation of fish is given in Table 5.11.

Table 5.11. Mode of transportation of fish

Mode of Transport	Number of Intermediaries		
	Neighbouring market	Distant market	Total
Head-load	1 (3)	5 (17)	6 (9)
Cycle	14 (40)	10 (33)	24 (37)
Private bus	5 (14)	1 (3)	6 (9)
Matsyafed bus	3 (9)	--	3 (5)
Tempovan	11 (31)	9 (30)	20 (31)
Autovan	1 (3)	2 (7)	3 (5)
Lorry	--	3 (10)	3 (4)
Total	35 (100)	30 (100)	65 (100)

Note: 1. Auctioneers and commission agents do not undertake any transportation and hence they are excluded

2. Figures in parenthesis indicate percentage to total

It cane be seen from the table that cycle and tempovans are the most common modes of transport used by 68 per cent of the intermediaries. It is also observed that the use of bus as a mode of transport is prevalent more among the intermediaries in the neighbouring markets than in the distant markets. It may be remembered that the Matsyafed is providing bus service to women fish distributors in Neendakara and Vady.

An analysis of the intermediary-wise use of different modes of transport is given in Table 5.12.

Table 5.12. **Intermediary-wise distribution of modes of transportation of fish**

Mode of Transport	Number of Intermediaries			
	Wholesalers	Cycle/head load fish distributors	Women fish distributors	Retailers
Head-load	--	--	--	6 (24)
Cycle	--	20 (100)	--	--
Private bus	--	--	5 (50)	1 (4)
Matsyafed bus	--	--	3 (30)	--
Autovan	--	--	--	4 (16)
Tempovan	7 (70)	--	2 (20)	14 (56)
Lorry	3 (30)	--	--	--
Total	10 (100)	20 (100)	10 (100)	25 (100)

Note: 1. Auctioneers and commission agents are not included

2. Figures in parenthesis indicate percentage to total

Tables 5.12 reveals that tempo is the most common mode of transport employed by the wholesalers and retailers. Similarly, private bus is the most common mode among women fish distributors

The different types of vehicles used by the intermediaries for the transportation of fish are either owned or hired by them. It is observed that only 43 per cent of the intermediaries have their own vehicles for transportation of fish and the rest of them hire the vehicles. Another observation is that six per cent of the intermediaries who own vehicles also hire more vehicles during days when the quantity purchased exceeds the capacity of their own vehicles. They are the wholesalers in the distant markets.

It is found that tempo, lorry and cycle are the various type of vehicles owned by the intermediaries with a proportionate share of three, 11 and 86 per cent, respectively. The tempo and lorry are owned by the wholesalers while the cycle is owned by the cycle fish distributors. The distribution of different types of vehicles hired by the intermediaries is given in Table 5.13.

Table 5.13. Distribution of various type of vehicles hired by the intermediaries (in percentage)

Type of Vehicle	Share
Tempovan	64
Autovan	9
Private bus	18
Matsyafed bus	9
Total	100

Table 5.13 shows that tempo is the most common type of vehicle hired by the intermediaries followed by private bus.

5.3.3. Sale of fish

Fish is sold in the market by way of auction, bargaining or for fixed price. The incidence of different mode of sales is given in Table 5.14.

*Table 5.14. **Distribution of intermediaries according to the different mode of sales***

Mode of sales	*Number of Intermediaries*
Auction only	*27 (31)*
Auction and bargaining	*4 (4)*
Bargaining only	*2 (2)*
Fixed price	*53 (62)*
Total	*86 (100)*

Note: Figures in parenthesis indicate percentage to total

It may be seen from Table 5.14 that fixed price sales is the mode of sales adopted by a major share of intermediaries. The next popular method of sale is auction. An intermediary-wise analysis shows that all the auctioneers and commission agents sell by way of auction while all the cycle/head-load fish distributors and retailers are following fixed price sales. When 80 per cent of women fish distributors follw fixed price sales, the rest of them follow bargaining. The practice of auction and bargaining is adopted for sales by 40 per cent of the wholesalers and the rest of them are making sales through auction.

Regarding the receipt of sales proceeds, it is observed that only 37 per cent of the intermediaries in the neighbouring markets sell for ready cash while the remaining 63 per cent of the intermediaries are receiving the sale proceeds partly in ready cash and partly on credit. The number of intermediaries making sales for ready cash and for cash and credit is equal in distant markets. The intermediary-wise analysis of the receipt of sales proceeds is given in Table 5.15.

Table 5.15. **Receipt of sale proceeds by the intermediaries**

Type of Intermediaries	Number of Intermediaries		
	Cash only	Cash and credit	Total
Auctioneers	6 (55)	5 (45)	11 (100)
Women fish distributors	4 (40)	6 (60)	10 (100)
Cycle/head-load fish distributors	2 (10)	18 (90)	20 (100)
Retailers	14 (56)	11 (44)	25 (100)
Wholesalers	10 (100)	--	10 (100)
Commission agents	--	10 (100)	10 (100)

Note: Figures in parenthesis indicate percentage to total

Table 5.15 shows that while all the wholesalers receive the sale proceeds in ready cash, all the commission agents are selling for cash as well as on credit. It also indicates that while majority of the acutioneers and retailers are selling for cash alone, women fish distributors and cycle/head-load fish distributors are making sales for cash as well as on credit. The period of credit varies from one day to one week in the neighbouring markets and 24 to 48 hours in the distant markets.

Fish marketing is an area where guestimates rule. It is observed that most often fish is sold without any weighing, but for the retailers in the distant markets. It is found that only three per cent of the intermediaries, who are retailers in the distant markets, have common balance. Even they do weigh for high value species of fish only. All other intermediaries are selling fish without weighing. Table 5.16 presents the pattern of marketing lots of intermediaries.

Table 5.16. Pattern of marketing lots of intermediaries

Marketing lots	Number of intermediaries		
	Neighbouring market	Distant market	Total
Heaps only	6 (13)	--	6 (7)
Baskets only	3 (7)	20 (50)	23 (27)
Numbers only	20 (43)	10 (25)	30 (35)
Heaps and Number	15 (33)	7 (18)	22 (26)
Heaps and baskets	2 (4)	--	2 (2)
Weight and number	--	2 (5)	2 (2)
Heaps, number and weight	--	1 (2)	1 (1)
Total	46 (100)	40 (100)	86 (100)

Note: Figures in parenthesis indicate percentage to total

It is evident from the table that only three per cent of the intermediaries sell fish according to weight. It also indicates that heaps, baskets and numbers or a combination of them are the most common marketing lots used intermediaries.

An intermediary-wise analysis of marketing lots shows that the marketing lots of all the cycle/head-load fish distributors and women fish distributors are number

while all the wholesalers and commission agents sell in baskets. The share of auctioneers marketing in heaps, baskets and in heaps and baskets are 55, 27 and 18 per cent, respectively. The most common marketing lots of retailers is heaps and number with a share of 88 per cent followed by weight and number with a share of eight per cent and heaps, number and weight with a share of four per cent, respectively.

5.3.4. Grading of fish

A scientific method of grading and pricing based on established grades are absent in fish marketing. It is observed that 36 per cent of the intermediaries, consisting of all the auctioneers, wholesalers and commision agents do not undertake any type of grading. Grading of fish before sale is practiced by the women fish distributors, cycle/head-load fish distributors and retailers only. It is found that 78 per cent of the intermediaries are doing size-wize grading and the remaining 22 per cent of the intermediaries do species-wise grading. Intermediary-wise analysis of the type of grading shows that size-wize grading is followed by 60, 75 and 88 per cent of the women fish distributors, cycle/head-load fish distributors and retailers, respectively. The rest of them do species-wise grading in the marketing of fish.

5.3.5. Use of preservatives

Since fish is highly perishable, preservatives are commonly used by the intermediaries for extending the shelf life of fish. It is observed that only 33 per cent of the intermediaries use preservatives in the neighbouring markets while all the intermediaries in the distant markets use preservatives. Since the time lag between the catch and consumption of fish is short in the neighbouring markets, fish can be sold in the neighbouring markets in fresh form itself. But, as the lag between the time of catch and time of consumption is long due to the long distance to be covered, fish will get spiled if no preservatives are used in distant markets. It is found that ice is the only preservative used by all the intermediaries. Ice is supplied in the landing centres by private traders. It is observed that the price/cost of ice fluctuate highly during days when the quantum of fish landed is very large.

5.3.6 Packing of fish

Different types of packing materials are used for packing fresh fish. The distribution of intermediaries according to the type of packing materials used is given in Table 5.17.

Table 5.17. Distribution of intermediaries according to the type of packing materials used

Type of Packing Materials	Number of Intermediaries		
	Neughbouring market	Distant market	Total
Bamboo baskets with palm leaves	25 (54)	31(78)	56 (65)
Bamboo baskets without palm leaves	11 (24)	9(22)	20 (23)
Aluminium basins	10 (22)	--	10 (12)
Total	46 (100)	40(100)	86 (100)

Note : Figures in parenthesis indicate percentage to total

Table 5.17 indicates that bamboo baskets with palm leaves is the most common method of packing followed by bamboo baskets without palm leaves. Bamboo baskets with palm leaves is used for packing by all the actioneers, commission agents and wholesalers. Bamboo baskets without palm leaves is used by all the cycle/head-load fish distributors and retailers. Aluminium basin is the packing material used by all the women fish distributors.

5.3.7. Commission business in fish marketing

The auctioneers and commission agents in the neighbouring and distant markets aid the distribution of fish for a commission. Commission is paid by the fishermen in the neighbouring markets and the wholesalers in the distant markets. The rate of commission charged by the commission agents is five per cent of the sale proceeds. Regarding the auctioneers, 82 per cent of them charge a commission of five per cent on the sale proceeds. On the other hand, the ramaining 18 per cent of the auctioneers who are appointed by the Fishermen Development and Welfare Co-operatives to sell the catch of their beneficiary members, charge only one per cent commission from the fishermen. However, the auctioneers appointed by the Fishermen Development and Welfare Co-operatives are found only in the beach markets of Neendakara and Vady landing centres and they are only a small percentage of the total number of auctioneers in the markets.

5.3.8. Risk-bearing function

The marketing of fish involves various risks arising out of its perishability. The unsold stock of fish is an important risk in fish marketing. Different practices exist among the intermediaries for the treatment of unsold fish. The various treatments of the unsold stock by the intermediaries is outlined in Table 5.18.

Table 5.18. Treatment of unsold stock by the intermediaries

(in percentage)

Treatment	Share
Iced for the next day	17
Salted	18
Sale at reduced price	48
Sales through other sources	17
Total	100

It can be seen from table 5.18 that sale of the unsold stock at a price less than the usual rate is the most commom method of treating the unsold stock by the intermediaries. Intermediary-wise treatment of unsold stock is given in Table 5.19.

Table 5.19 Intermediary-wise treatment of unsold stock.

Treatment	Number of Intermediaries			
	Wholesalers	Woman fish distributors	Cycle/head-load fish distributors	Retailers
Iced for the next day	--	--	--	10 (40)
Salted	--	3 (30)	3 (15)	5 (20)
Sale at reduced price	10 (100)	7 (70)	7 (35)	10 (40)
Sales through other sources	--	--	10 (50)	--
Total	10 (100)	10 (100)	20 (100)	25(100)

Note: Figures in parenthesis indicate percentage to total.

Table 5.19 shows that the practice of icing fish for the next day and sales through other sources are followed by the retailers and cycle/head-load fish distributors, respectively.

The intermediaries are also bearing various other marketing risks like spoilage of fish and bad debts. The auctioncers and commission agents are exposed to risk due to bad debts only However, all other type of intermediaries bear risks arising out of spoilage of fish and bad debts.

5.3.9. Species of fish marketed

It is observed that all the intermediaries do not undertake the marketing of all the species of fish. Based on the availability and preferences of customers, the intermediaries handle various species of fish. The distribution of intermediaries handling the selected species is given in Table 5 20.

Table 5.20. Distribution of intermediaries according to the species of fish handled.

Species	Number of intermediaries		
	Neighbouring markets	Distant markets	Total
Mackerals	45 (98)	40 (100)	85 (99)
Oil sardines	14 (30)	34 (85)	48 (56)
Red Mullets	3 (7)	30 (75)	33 (38)
Tunnies	22 (48)	11 (28)	33 (38)
Seer fish	4 (9)	16 (40)	20 (23)
Pomfrets	5 (11)	7 (18)	12 (14)

Note: Figures in parenthesis indicate percentage to total number of intermediaries.

Table 5.20. indicates that mackerals is the most common species handled by almost all the intermediaries followed by oil sardines. The low value species like oil sardines and red mullets are handled by the intermediaries to a greater extent in the distant markets than in the neighbouring markets. The availability of the species in large quantity at low price may be the reason for this pattern. The high value species like seer fish and pomfrets are handled by relatively higher number of intermediaries in the distant markets. This is because the high value species which are small in quantity are available more in the distant markets since the fish from a number of landing centres are available in distant markets.

5.4. Analysis of Price - spread.

This section analyses the price-spread of selected species of marine fresh fish. The price-spread is one of the measures of channel efficiency and it is employed for evaluating the various distribution channels of fresh fish. Price-spread examines the producer-consumer-price- variance which will give the producers' share in the consumer price.

5.4.1. Channel - wise analysis of price-spread

The various intermediaries intervening in the distribution channels undertake various marketing functions for a margin by incurring various costs. The magnitude of marketing costs incurred by the intermediaries and the margins earned by them have a telling impact on fishermen's share in the consumers' price. An analysis of the marketing costs and margins of various distribution channels in the neighbouring and distant markets are given in Table 5.21 and Table 5.22, respectively.

Table 5.21. Channel-wise distribution of price-spread in the neighbouring markets (in rupees/Kg)

Particulars	Channels		
	N_1	N_2	N_3
A Fishermen's price	6.51	6.51	6.51
	(65)	(64)	(63)
B Marketing cost	0.63	0.73	0.96
	(6)	(7)	(10)
i. Auctioneers	0.07	0.07	0.07
ii. Cycle/head-load fish distributors	0.56	--	--
iii. Women fish distributors	--	0.66	--
iv. Retailers	--	--	0.89
C (A+B)	7.14	7.24	7.47
D Consumers' price	10.07	10.25	10.39
E Net marketing margin (D-C)	2.93	3.01	2.92
	(29)	(29)	(27)
i. Auctioneers	0.28	0.28	0.28
ii. Cycle/head-load fish distributors	2.65	--	--
iii. Women fish distributors	--	2.73	--
iv. Retailers	--	--	2.64

Note: 1. Figures in parenthesis indicate percentage to consumers' price

2. For details of marketing cost see Appendix - V

According to Table 5.21 the marketing costs and margins of various distribution channels in the neighbouring markets do not show wide variations. The fishermen's share in consumer price is the highest in N_1 *and the lowest in* N_3. *This is mainly due to the higher incidence of marketing cost in* N_3 *and lower incidence of marketing cost in* N_1.

Table 5.22. Channel-wise distribution of price-spread in the distant markets (in rupees/kg)

Particulars	Distribution Channels			
	D_1	D_2	D_3	D_4
A Fishermen's price	6.51	6.51	6.51	6.51
	(59)	(52)	(57)	(50)
B Marketing cost	1.89	1.53	1.96	1.60
	(18)	(13)	(17)	(14)
Auctioneers	0.07	0.07	0.07	0.07
Wholesalers	0.85	0.85	0.85	0.85
Commission agents	--	--	0.07	0.07
Cycle/head-load fish distributors	0.97	--	0.97	--
Retailers	--	0.61	--	0.61
C (A + B)	8.40	8.04	8.47	8.11
D Consumers' price	10.97	12.45	11.47	12.95
E Net marketing margin (D -C)	2.57	4.41	3.00	4.84
	(23)	(35)	(26)	(36)
i. Auctioneers	0.28	0.28	0.28	0.28
ii. Wholesalers	0.62	0.62	0.62	0.62
iii. Commission agents	--	--	0.43	0.43
iv. Cycle/head-load fish distributors	1.67	--	1.67	--
v. Retailers	--	3.51	--	3.51

Note: 1. Figures in parenthesis indicate percentage to consumers' price

2. For details of marketing cost see Appendix - V

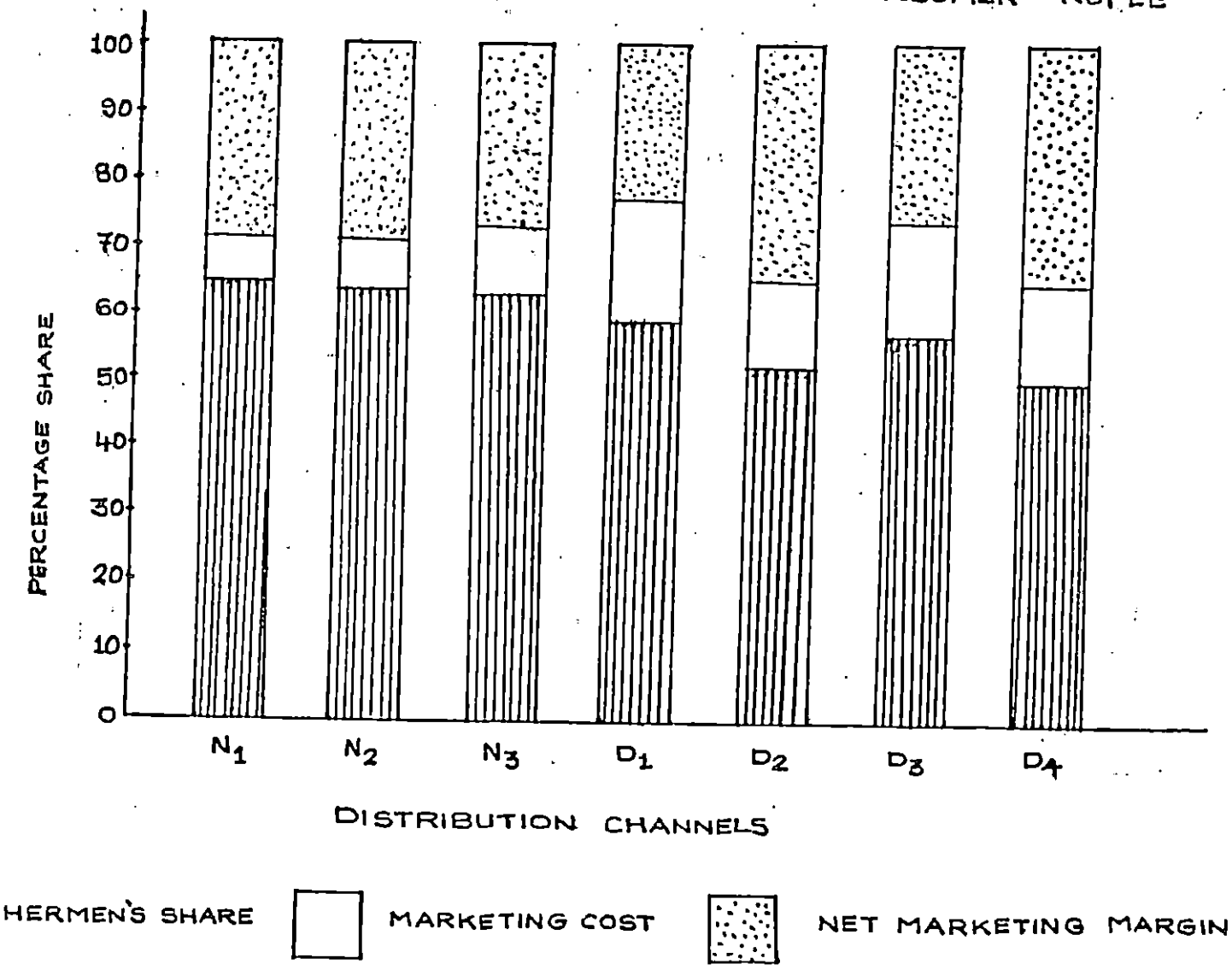
Table 5.22 indicates considerable variations in the marketing costs and margins in the distribution channels. The fishermen's share in consumer price is the highest in D_1 and the lowest in D_4. It may be noted that the higher share of fishermen in the consumer price in D_1 is due to the lower marketing margin. Similarly, the lower share of fishermen in the consumer price in D_4 is primarily because of the higher net marketing margin.

A comparison of neighbouring and distant markets shows that the fishermen's share in the consumer price is more in neighbouring markets than in distant markets. On the other hand, the marketing cost is more in distant markets than in the neighbouring markets. It is worth to note that the net marketing margin in D_1 and D_3 are lower than the net marketing margins in all the distribution channels in the neighbouring markets. Considering the distribution channels as a whole, the fishermen's share in consumer rupee is the highest in N_1 and the lowest in D_4.

5.4.2. Length of the distribution channel and its impact on price-spread.

It is observed that the length of the distribution channel and the producers' share in consumer rupee is inversely related. Hence, longer the channel, the lesser will be the fisherman's share in consumer rupee. When more number of hands are involved in between the fisherman and

FIG. 5.3. CHANNEL-WISE DISTRIBUTION OF CONSUMER RUPEE



the consumer, the marketing cost and margin tend to increase. It can be seen from Table 5.21 that the fishermen's share in channels N_1, N_2 and N_3 (where only two hands are involved in between the fishermen and consumer) is 65,64 and 63 per cent, respectively. The fishermen's share according to Table 5.22 is 59 and 52 per cent in D_1 and D_2 (where three hands are involved) and 57 and 50 per cent in D_3 and D_4 (where four hands are involved in between fishermen and consumers). Therefore, when the channel becomes longer the fishermen's share in consumer rupee comes down.

5.4.3. Species-wise analysis of price-spread.

The price-spread varies among the different species of fish. The species-wise variation in price-spread is presented in Table 5.23.

Table 5.23. Species-wise distribution of price-spread (in rupees/Kg)

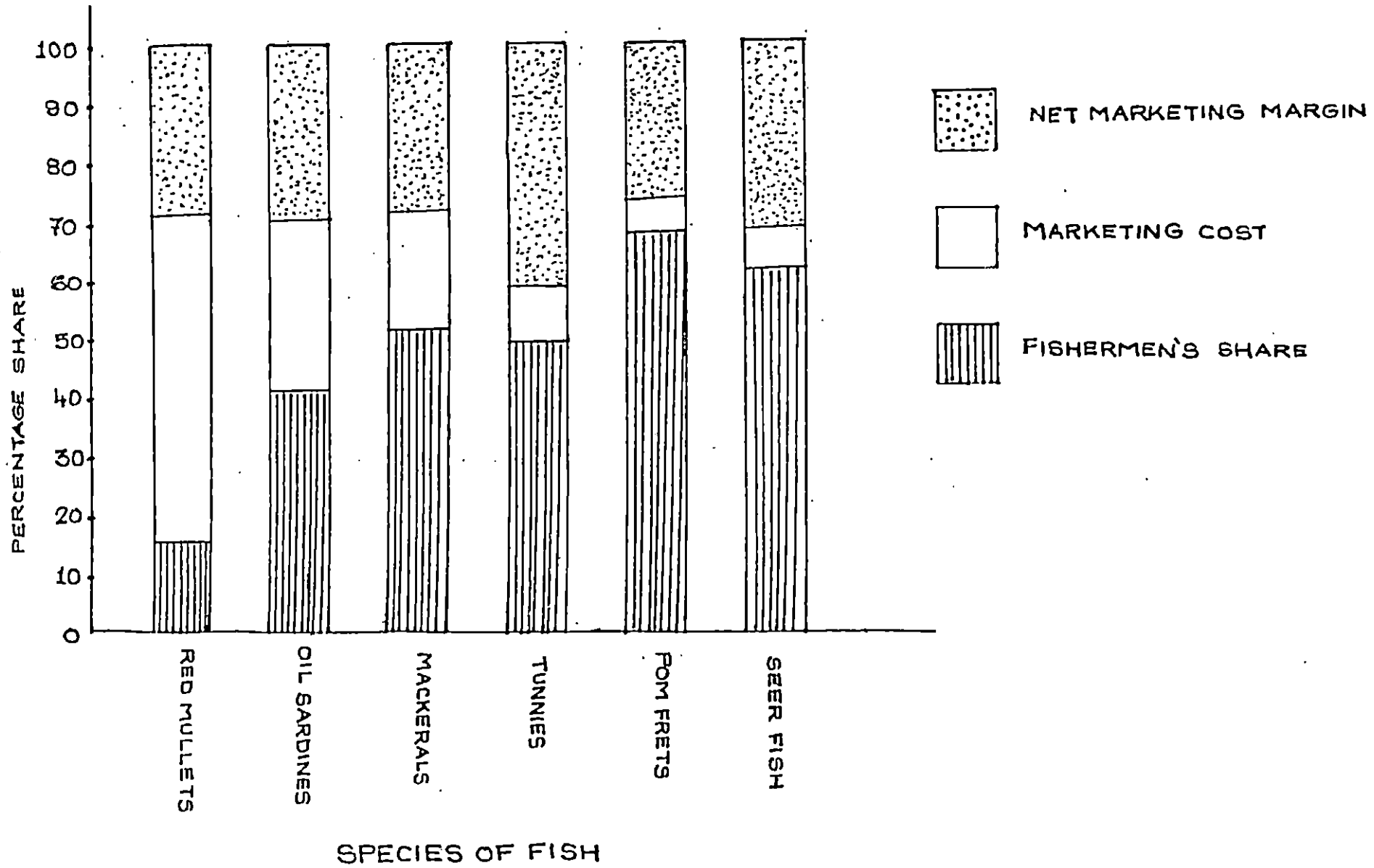
Particulars	Species					
	Red mullets	Oil sard-ines	Mack-erals	Tunnies	Pomfre-ts	Seer fish
Fishermen's share	0.42	1.92	3.33	5.99	15.59	14.72
	(15)	(41)	(51)	(49)	(68)	(62)
Marketing cost	1.58	1.34	1.33	1.07	1.05	1.52
	(52)	(29)	(20)	(9)	(5)	(6)
Net marketing margin	0.79	1.40	1.91	5.12	6.16	7.62
	(28)	(30)	(29)	(42)	(27)	(32)
Consumers' price	2.79	4.66	6.57	12.18	22.80	23.86
	(100)	(100)	(100)	(100)	(100)	(100)

Note: 1. Figures in parenthesis indicate percentage to consumers price

2. For channel-wise distribution of the price-spread of various species see Appendix - VII

The tabele discloses that the fisherman's share in consumer rupee varies from 15 to 68 per cent for the various species of fish. It is the lowest for red mullets, the low value species, and is the highest for pomfrets, the high value species. It also indicates that in general, the fisherman's share in consumer rupee is increasing as

FIG.5.4. SPECIES-WISE DISTRIBUTION OF CONSUMER RUPEE



the unit value of species increases. This is because the fisherman is having comparitively better bargaining power in the case of high value species which is available in small quantities in the total catch.

It is also observed that the species-wise marketing cost is the highest for the low value species and it comes down when we move on to the high value species, except for seer fish. Regarding the net marketing margin, it varies from 28 to 42 per cent of the consumer price and it does not exibit any direct relationship to the value of different species of fish.

The channel-wise price-spread for the selected species is also estimated (see Appendix - VII). The efficiency of different distribution channels for various species of fish is analysed in terms of fishermen's share in consumer rupee and is given in Table 5.24.

Table 5.24 Species-wise efficiency of distribution channels

Species	Most Efficient Channel		Least Efficient Channel	
Red mullets	D_1, D_3	(17)	N_3	(13)
Oil sardines	N_3	(50)	D_1	(35)
Mackerals	N_1, N_3	(55)	D_1	(45)
Tunnies	N_3	(59)	D_2	(41)
Pomfrets	N_1	(78)	D_2	(64)
Seer fish	N_3	(74)	D_2	(55)

Note: Figures in parenthesis indicate fishermen's share in consumer rupee

Table 5.24 clearly indicates that no single distribution channel is found to be most or least efficient for all the species of fish. However, N_3 is the most efficient channel for comparitively more number of species. This again is evaluated by using Kendal's rank co-efficient. Rank one is given to the best, two for the next best and the like. Ranking of distribution channels according to Kendal's co-efficient is given in Table 5.25.

Table 5.25 Ranking of distribution channels for various species according to Kendal's co-efficient

Species	Score of distribution channels						
	N_1	N_2	N_3	D_1	D_2	D_3	D_4
Red mullets	5	5	4	1	3	1	2
Oil sardines	2	5	1	7	4	6	3
Mackerals	1	3	1	6	4	5	2
Tunnies	2	2	1	5	4	5	3
Pomfrrets	1	5	3	5	4	5	2
Seer fish	6	6	1	3	5	2	4
Total score	17	26	11	27	24	24	16

According to Kendal's co-efficient, the channel with the least total score is the most efficient channel. Table 5.25 indicates that N_3 is the most efficient channel, followed by D_4 and N_1, considering all the species of fish. Similarly, D_1 is the least efficient channel.

The foregoing analysis shows that there exists different distribution channels for marine fresh fish in the neighbouring and distant markets and considerable variations have been observed in the marketing practices

followed by the intermediaries. The fishermen's share has been found to be the highest in the distribution channels in the neighbouring markets and the lowest in the distant markets. The fishermen's share in the consumer rupee is found to increase with the increase in the value of species of fish.

SUMMARY

CHAPTER VI

SUMMARY

The Study, an evaluation of the internal distribution channels of marine fresh fish in Quilon district is conducted with the objective of identifying the existing distribution channels of marine fresh fish, to analyse the nature, extent, and trade practices of intermediaries, and to estimate the price-spread.

Quilon district was selected for the study since it is the marine district having the highest production of marine fish in the state. Neendakara, Vady and Puthenthura were selected to represent a large, medium and a small landing centre, respectively. The markets within 20 km. radius of the selected landing centres constituted the neighbouring markets. Paripally, Punalur, Kottarakkara and Anchal were the markets selected among the distant markets.

The sample frame of intermediaries covered in the study consists of 86 intermediaries - giving due representation to various types of intermediaries. Two species of fish selected from each group of fish to represent low, medium and high value species of fish constituted the sample species of fish for the study.

The primary data were collected through structured schedule, market enquiries and systematic personal observations in the markets. The tools used for analysis of data were simple averages, percentages, ratios and Kendal's Rank Correlation Co-efficient. The price-spread was estimated by employing a variant of the concurrent margin method.

The study revealed the existence of separate distribution channels for export, dry and fresh fish. There are three major channels of distribution for marine fresh fish in the neighbouring markets and four major channels in the distant markets. Channels N_3 and D_3 have a relatively higher share in the total distribution of marine fresh fish in the neighbouring and distant markets, respectively. With the exception of oil sardines and mackerals all the species of fish are not distributed through all the distribution channels.

The neighbouring markets are characterised by the cycle/head-load fish distributors, women fish distributors, and retailers. The players in the distant markets are wholesalers, commission agents, cycle/head-load fish distributors and retailers. The auctioneers as a class of intermediaries serve both the neighbouring and distant markets. It is a fact that the co-operatives have not

succeeded in making their presence realy felt in areas of fish marketing. If at all they intervene in the market, it is through the auctioneers appointed by them to sell the fish of their beneficiary members.

Fish marketing is found to be a regular traditional occupation more so among the Muslims in the distant markets. Comparitively younger group of people are engaged in fish marketing in the neighbouring markets than in the distant markets. The entry in the distant markets particularly at the level of wholesalers is relatively difficult because of bulk movement of fish with attendant higher financial stake and business risk. On the contrary, entry in the neighbouring markets is relatively easy because of small quantity movements involving lesser financial stake and business risk.

Among the intermediaries, the dialy working time is comparitively low for wholesalers and commission agents while it is the highest (11.9 hours) for retailers. It is also observed that for all types of intermediaries except commission agents and wholesalers, fish marketing is a self employment activity. For the wholesalers and commission agents, it is a business.

It is observed that between the fishermen and the consumers, marine fresh fish passes through two to four

hands. In the neighbouring markets, only two hands and in the distant markets three or four intermediaries are intervening between the fishermen and the consumers.

The practice of purchasing fish twice a day is common only among the intermediaries in the neighbouring markets and that too limited to 22 per cent of them. All the intermediaries in the neighbouring markets practice cash purchases while both cash and credit purchases are common in the distant markets.

The purchase and selling places are different for all intermediaries except for auctioneers and commission agents. It is also observed that the wholesalers cover the longest distance (47 km) in the distribution of fish while all other intermediaries operate within a radius of not more than 11 km. The intermediaries employ different modes of transport to cover the distance between the purchase and selling places. Cycle and tempovan are the most commonly used modes of transport for a major share (68 per cent) of the intermediaries. Tempovan is the most common mode of transport employed by the wholesalers and retailers (70 and 56 per cent) while private bus is the most common mode among women fish distributors (50 per cent). Only 43 per cent of the intermediaries have their own vehicles for transportation of fish and the rest of them hire the vehicles. Tempovan, lorry and cycle are the various types of vehicles owned by the intermediaries with a

proportionate share of three, 11, and 86 per cent of the intermediaries, respectively. The tempovan and lorry are owned by the wholesalers while the cycle is owned by the cycle fish distributors. Tempo is the commonly hired vehicle by 64 per cent of the intermediaries.

Fixed price sales is the mode of sales adopted by a major share (62 per cent) of the intermediaries. All the auctioneers, commission agents and 60 per cent of the wholesalers sell fish by way of auction while all the cycle/head-load fish distributors and retailors are practicing fixed price sales. Most of the women fish distributors (80 per cent) follow fixed price sales. A major share (63 per cent) of intermediaries in the neighbouring markets sell fish partly for ready cash and partly on credit while others sell for ready cash alone. The number of intermediaries making sales for ready cash and for cash and credit is equal is distant markets. It is found that the period of credit varies from one day to one week in the neighbouring markets and 24 to 48 hours in the distant markets.

It is observed that most of the fish is sold without weighing. Most of the intermediaries (97 per cent) are selling fish without weighing. Heaps, baskets and numbers or a combination of them are the most common marketing lots of the intermediaries. The marketing lots of all the cycle/head-load fish distributors and women

fish distributors are numbers while all the wholesalers and commission agents sell in baskets. Heaps is the marketing lot of majority (55 per cent) of the auctioneers and heaps and number is the marketing lot of most (88 per cent) of the retailers.

It is observed that a scientific system of grading is absent in fish marketing. The auctioneers, wholesalers and commission agents do not undertake any type of grading. Among those who undertake grading, 78 per cent of the intermediaries are doing size-wise grading and the rest of them do species - wise grading. Size-wise grading is practiced by 60, 75, and 88 per cent of the women fish distributors, cycle/head-load fish distributors and retailers, respectively.

All the intermediaries in the distant markets and 23 per cent of the intermediaries in the neighbouring markets go for icing of fish. It is found that bamboo baskets with palm leaves is the most common method of packing fish followed by most (65 per cent) of the intermediaries.

The auctioneers and commission agents are helping the exchange process for a commission which is paid by the fishermen and wholesalers in the neighbouring and distant markets, respectively. The rate of commission charged by the private auctioneers and commission agents is five

per cent of the sales proceeds while it is only one per cent for the auctioneers of the fishermen development and welfare co-operatives.

The unsold stock of fish is an important risk in fish marketing. Different practices like icing, salting, sales at reduced price, etc. are resorted to by the intermediaries to cope with the unsold stock. Other types of risks born by the intermediaries are spoilage of fish and bad debts.

Observations about the species of fish handled by the intermediaries show that all the intermediaries do not undertake the marketing of all the species of fish. Mackerals and oil sardines are handled by a relatively more number (99 and 56 per cent) of intermediaries. The low value species like oil sardines and red mullets are handled by the intermediaries to a greater extent in the distant markets than in the neighbouring markets. The high value species of fish are handled by a relatively higher number of intermediaries in the distant markets.

Analysis of the fishermen's share in consumers' price shows that fishermen's share is the highest (65 per cent) in channel N_1 and the lowest (50 per cent) in channel D_4. It is observed that there is an inverse relation between the length of the distribution channel and the fisherman's share in consumer price. It is estimated

that the fishermen's share is high (63 to 65 per cent) when the distribution channel is short and the fishermen's share is low (50 to 59 per cent) when the channel is longer.

Species-wise price-spread analysis shows that the fishermen's share, marketing cost and net marketing margins vary for the different species of fish. The fishermen's share is the lowest (15 per cent) for red mullets and it is the highest for pomfrets (68 per cent). It is observed that, in general, the fishermen's share in the consumer price declines as the value of species decreases.

The species-wise marketing cost is the highest for low value species and it comes down when the value of species increases. The net marketing margin varies among the different species of fish and it is found that the net a marketing margin is not directly related to the value of different species of fish. The net marketing margin is the lowest (28 per cent) for red mullets and the highest (42 per cent) for tunnies.

The species-wise distribution of price-spread indicates that the fishermen's share for different species of fish varies among the different distribution channels. It is found that the fishermen's share in the consumer price is the highest in channel N_3 for comparitively more number of species of fish.

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APPENDICES

Appendix I

Fish production in Kerala, 1970 - 86

(in tonnes)

Year	Marine	Inland	Total
1970	392880 (98)	8584 (2)	401464 (100)
1971	445347 (96)	17805 (4)	463152 (100)
1972	295618 (95)	16180 (5)	311798 (100)
1973	448269 (96)	17839 (4)	466108 (100)
1974	420257 (95)	23004 (5)	443261 (100)
1975	420836 (95)	23184 (5)	444020 (100)
1976	331047 (93)	23790 (7)	354837 (100)
1977	345037 (94)	23978 (6)	369015 (100)
1978	373339 (94)	24356 (6)	397695 (100)
1979	330509 (93)	24806 (7)	355315 (100)
1980	279543 (92)	25460 (8)	305003 (100)
1981	274395 (91)	25927 (9)	300322 (100)
1982	325795 (92)	26452 (8)	352247 (100)
1983	385275 (93)	27011 (7)	412286 (100)
1984	424718 (94)	27388 (6)	452106 (100)
1985	332503 (92)	28518 (8)	361021 (100)
1986	335856 (92)	28959 (8)	364815 (100)

Note: Figures in parenthesis indicate percentage to total

Source: Government of Kerala (1988), Economic Review, State Planning Board, Trivandrum, P.30

Appendix II

District-wise Marine Fish Landings in Kerala, 1980 - 84

(in tonnes)

District	1980	1981	1982	1983	1984
Trivandrum	49686	29151	53970	59593	47457
Quilon	105019	46795	92356	107480	111429
Alleppey	24306	38127	34076	37254	54962
Ernakulam	37863	34192	35603	37365	49351
Trichur	12325	19759	24526	33301	26175
Malappuram	11407	10235	10141	50202	48546
Calicut	22989	33180	31449	30146	24020
Cannanore	15426	62539	43246	29939	30953
Total	279021	273978	325367	385280	392893

Source: Compiled from CMFRI (1987), An Appraisal of the Marine Fisheries of Kerala, Cochin.

Appendix III

District-wise Coastline Distribution of Kerala

District	Length in km
Trivandrum	78 (13.2)
Quilon	37 (6.3)
Alleppey	82 (13.9)
Ernakulam	46 (7.8)
Trichur	54 (9.2)
Malappuram	70 (11.8)
Calicut	71 (12.0)
Cannanore	152 (25.8)
Total	550 (100.0)

Note : Figures in parenthesis indicate percentage to total

Sources : Government of Kerala (1983), Kerala Fisheries - **Facts and Figures,** Dept. of Fisheries, Trivandrum, P.1.

Appendix - IV

Classification of Species of fish Used for Domestic Consumption in Kerala According to Average Beach Price, 1988 - 1989.

Sl.No.	Species of Fish	Average Beach Price (Rupees / Kg)
a.	**Low value Species(2-6 rupees/Kg)**	2.20
1.	Ribbon fish	2.20
2.	Polynemids	2.30
3.	Flying fish	2.55
4.	Hemirhamphus	2.65
5.	Oil sardines	3.00
6.	Sauridand Saurus	3.10
7.	Leiognathus	3.20
8.	Sciaenids	3.25
9.	Soles	3.25
10.	Red mullets	3.50
11.	Sphyraena	3.70
12.	Perches	3.85
13.	Eels	4.10
14.	Chirocentrus	4.95
15.	Mugil	5.20
16.	Caranx	5.25
17.	Cat fish	5.50
18.	Elasmobranches	5.90
b.	**Medium Value Species (6-10 rupees / Kg.)**	
1.	Cephalopods	6.10
2.	Lactarius	6.20
3.	Mackerals	6.50
4.	Tunnies	7.00
c.	**High value species (above 10 rupees / Kg)**	
1.	Pomfrets	11.00
2.	Seer fish	13.50

Source: Compiled from Fisheries Department, Trivandrum.

Appendix V

Marketing Cost of Intermediaries

(in rupees/day)

Items	Neighbouring markets				Distant markets			
	Auction-eers	Cycle/ head load fish distri-butors	Women fish distri-butors	Retai-lers	Whole-salers	Commi-ssion Agent	Cycle/ head load fish distri-butors	Retai-lers
Market fee	1 (3)	2 (5)	1 (4)	3 (3)	32 (3)	--	--	4 (3)
Cost of preservative	--	14 (35)	--	36 (39)	175 (15)	--	--	--
Cost of packing	--	5 (12)	1 (4)	12 (13)	176 (15)	--	3 (4)	--
Cost of transportation	--	-- (24)	8 (34)	20 (21)	359 (31)	--	40 (51)	67 (42)
Bad debts and loss due to spoilage	34 (97)	18 (45)	14 (58)	22 (24)	--	186 (52)	31 (40)	52 (33)
Labour charges	--	--	--	--	232 (20)	142 (40)	--	19 (12)
Commission paid	--	--	--	--	177 (16)	--	--	--
Market cleaning charges	--	--	--	--	--	25 (7)	--	--
Rent of buildings	--	--	--	--	--	4 (1)	--	--
Cost of sand	--	--	--	--	--	--	--	16 (10)
Depreciation on cycle	--	1 (3)	--	--	--	--	1 (1)	--
Total	35 (100)	40 (100)	24 (100)	93 (100)	1151 (100)	357 (100)	78 (100)	158 (100)
Quantity handled (Kg)	527	72	36	105	1350	5015	80	258
Marketing cost per Kg	0.07	0.56	0.66	0.89	0.85	0.07	0.97	0.61

Note: Figures in parenthesis indicate percentage to total

Appendix VI

Average Species-wise Quantity Handled by the Intermediaries

(in kg/day)

Species	Neighbouring markets				Distant markets			
	Auctioneers	Cycle/head load fish distributors	Women fish distributors	Retailers	Wholesalers	Commission agents	Cycle/head load fish distributors	Retailers
Red mullets	153 (29)	--	--	21 (20)	378 (28)	1555 (31)	5 (6)	59 (23)
Oil sardines	116 (22)	14 (19)	13 (36)	17 (16)	230 (17)	853 (17)	20 (25)	46 (18)
Mackerals	142 (27)	30 (42)	11 (31)	27 (26)	432 (32)	1805 (36)	51 (63)	52 (20)
Tunnies	37 (7)	9 (13)	5 (14)	13 (12)	108 (8)	301 (6)	--	21 (8)
Pomfrets	21 (4)	4 (5)	--	5 (6)	54 (4)	100 (2)	--	10 (4)
Seer fish	5 (1)	--	--	7 (7)	68 (5)	100 (2)	2 (3)	26 (10)
Others	53 (10)	15 (21)	7 (19)	15 (13)	80 (6)	301 (6)	2 (3)	44 (17)
Total	527 (100)	72 (100)	36 (100)	105 (100)	1350 (100)	5015 (100)	80 (100)	258 (100)

Note: Figures in parenthesis indicate percentage to total

Appendix VII

VII a. Channel-wise Price-spread Distribution of Red mullets

(in rupees/Kg)

Particulars	*Channels*							
	N_1	N_2	N_3	D_1	D_2	D_3	D_4	*Total*
Fishermen's price			*0.42*	*0.42*	*0.42*	*0.42*	*0.42*	*0.42*
			(13)	*(17)*	*(15)*	*(17)*	*(14)*	*(15)*
Marketing costs			*0.96*	*1.86*	*1.54*	*1.93*	*1.61*	*1.58*
			(30)	*(77)*	*(54)*	*(77)*	*(55)*	*(57)*
Net marketing margin			*1.87*	*0.15*	*0.89*	*0.15*	*0.89*	*0.79*
			(57)	*(6)*	*(31)*	*(6)*	*(31)*	*(28)*
Consumers' price			*3.25*	*2.43*	*2.85*	*2.50*	*2.92*	*2.79*
			(100)	*(100)*	*(100)*	*(100)*	*(100)*	*(100)*

Note: 1. Channels N_1 and N_2 do not undertake the distribution of red mullets.

2. Figures in parenthesis indicate percentage to consumers' price

VII b. Channel-wise Price-spread Distribution of Oil sardines

(in rupees/Kg)

Particulars	Channels							
	N_1	N_2	N_3	D_1	D_2	D_3	D_4	Total
Fishermen's price	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92
	(45)	(40)	(50)	(36)	(44)	(35)	(42)	(41)
Marketing costs	0.64	0.76	0.95	1.90	1.54	1.97	1.61	1.34
	(15)	(16)	(24)	(36)	(35)	(36)	(36)	(29)
Net marketing margin	1.69	2.13	1.01	1.50	0.93	1.57	1.00	1.40
	(40)	(44)	(26)	(28)	(21)	(29)	(22)	(30)
Consumers' price	4.25	4.81	3.88	5.32	4.39	5.46	4.53	4.66
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)

Note: Figures in parenthesis indicate percentage to consumers' price.

VII c. Channel-wise Price-Spread Distribution of Mackerals.

(in rupees/Kg)

Particulars	Channels							
	N_1	N_2	N_3	D_1	D_2	D_3	D_4	Total
Fishermen's price	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
	(55)	(52)	(55)	(46)	(53)	(45)	(51)	(51)
Marketing costs	0.62	0.75	0.93	1.90	1.53	1.97	1.60	1.33
	(10)	(12)	(15)	(23)	(24)	(26)	(25)	(20)
Net marketing margin	2.10	2.33	1.84	1.99	1.41	2.15	1.57	1.91
	(35)	(36)	(30)	(28)	(33)	(29)	(24)	(29)
Consumers's price	6.05	6.41	6.10	7.22	6.27	7.45	6.50	6.57
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)

Note: Figures in Parenthesis indicate percentage to consumers' price.

VII d. Channel-wise Price-spread Distribution of Tunnies

(in rupees/kg)

Particulars	Channels							
	N_1	N_2	N_3	D_1	D_2	D_3	D_4	Total
Fisherman's Price	5.99	5.99	5.99		5.99		5.99	5.99
	(55)	(55)	(59)		(42)		(41)	(49)
Marketing costs	0.65	0.68	0.93		1.52		1.59	1.07
	(6)	(6)	(9)		(11)		(11)	(9)
Net marketing margin	4.16	4.33	3.25		6.74		7.09	5.12
	(39)	(39)	(32)		(47)		(48)	(42)
Consumers' price	10.80	11.00	10.17		14.25		14.67	12.18
	(100)	(100)	(100)		(100)		(100)	(100)

Note : 1. Channels D_1 and D_3 do not undertake the distribution of tunnies.

2. Figures in parenthesis indicate percentage to consumers' price.

VII e. Channel-wise price-Spread Distribution of Pomfrets

(in rupees/Kg)

Particulars	Channels							
	N_1	N_2	N_3	D_1	D_2	D_3	D_4	Total
Fishermæn's price	15.59		15.59		15.59		15.59	15.59
	(78)		(65)		(68)		(64)	(68)
Marketing costs	0.57		1.00		0.99		1.62	1.05
	(2)		(4)		(4)		(7)	(5)
Net marketing margin	3.84		7.41		6.26		7.15	6.16
	(20)		(31)		(28)		(29)	(27)
Consumers' price	20.00		24.00		22.84		24.36	22.80
	(100)		(100)		(100)		(100)	(100)

Note : 1. Channels N_2, D_1 and D_3 do not undertake the distribution of pomfrets.

2. Figures in parenthesis indicate percentage to consumers' price.

VII f. Channel-wise Price-Spread Distribution of Seer fish

(in rupes/Kg)

Particulars	Channels							
	N_1	N_2	N_3	D_1	D_2	D_3	D_4	Total
Fishermens' price			14.72	14.72	14.72	14.72	14.72	14.72
			(74)	(64)	(57)	(62)	(55)	(62)
Marketing costs			1.00	1.70	1.53	1.77	1.60	1.52
			(5)	(7)	(6)	(7)	(6)	(6)
Net marketing margin			4.28	6.59	9.39	7.51	10.31	7.62
			(21)	(29)	(37)	(31)	(39)	(32)
Consumers' price			20.00	23.01	25.64	24.00	26.63	23.86
			(100)	(100)	(100)	(100)	(100)	(100)

Note:1.Channels N_1 and N_2 do not undertake the distribution of seer fish.

2. Figures in parenthesis indicate percentage to consumers' price.

Appendix VIII

Species Composition of Marine Fish Landings in Kerala, 1986.

Sl. No.	Spiees	Fish Landings (in tonnes)
1.	Oil sardines	1,45,259 (43.25)
2.	Prawns	29,817 (8.88)
3.	Other sardines	24,245 (7.22)
4.	Mackerals	17,294 (5.15)
5.	Anchoviella	9,500 (2.83)
6.	Tunnies	7,042 (2.10)
7.	Perches	6,577 (1.96)
8.	Elacate	6,413 (1.91)
9.	Red mullets	6,329 (1.88)
10.	Elasmobranchs	6,057 (1.80)
11.	Cat fishes	5,084 (1.51)
12.	Soles	5,080 (1.51)
13.	Sciaenids	4,601 (1.37)
14.	Cephalopods	3,997 (1.19)
15.	Leiognathus	3,642 (1.08)
16.	Ribbon fish	3,536 (1.05)
17.	Trychynotus	3,300 (0.98)
18.	Seer fish	3,005 (0.90)
19.	Saurida and Saurus	2,640 (0.79)
20.	Chirocentrus	2,237 (0.69)
21.	Pomfrets	1,892 (0.56)
22.	Caranx	1,852 (0.55)
23.	Thrissocles	1,394 (0.42)
24.	Lactarius	1,194 (0.36)
25.	Mugil	882 (0.26)
26.	Others	32,985 (9.80)
	Total	3,35,854 (100)

Note : Figures in parenthesis indicate percentage to total.

Source : Compiled from Department of Fisheries, Trivandrum.

Appendix IX

SCHEDULE FOR INTERMEDIARIES

Date of interview:

The purpose of this survey is to study the internal distribution channels, nature, extent and trade practices of intermediaries and price-spread in the marketing of marine fresh fish. No information will be disclosed or used for any purpose other than research.

I. General Information

1	*Name*	:
2.	*Age*	:
3	*Sex*	: *Male/Female*
4	*Religion*	:
5.	*Caste*	:
6.	*Place of market*	: *Neighbouring/Distant* .....
7.	*Ownership of the market/ Auction hall*	: *Municipality/Panchayat/Port Trust/ Others (specify)*
8	*Business hours of the market*	: *From* *To*
9	*Experience in the field (years)*	:
10	*Nature of your business*	: *Regular/occasional*
11.	*Do you have any other occupation*	.: *Yes/No*
	If yes, give the details	
12.	*Type of intermediary*	: *Auctioneer/Head-load Fish distributor/Cycle load Fish Distributor/ Women Fish Distributor/Retailer/ Wholesaler/Commission Agent/Others (specify)*

II. Details of Operation

1 Source of purchase : Country Boats/Mechanised Boats/Auctioneers/Wholesalers/Commission agents / Others (specify)

2. Customers Head-load Fish Distributors/Cycle load Fish Distributors/Women Fish Distributors/Retailers/Wholesalers/ Commission Agents/Households/hotels/ others (specify)

3 Normal places of :

Purchase (a)	Sales (b)	Quantity (daily)	Distance between (a) and (b) (km)

4 Do you have export business : Yes/No

If yes specify the species exported :

5. Species and prices of fish handled in the domestic market :

Species	Purchase price				Sales price			
	Day			Week	Day			Week
	Morning	Noon	Evening		Morning	Noon	Evening	
1. Red mullets								
2. Oil sardines								
3. Mackerals								
4. Tunnies								
5. Pomfrets								
6. Seer fish								
7 Others (specify)								

6. When do you purchase fish : Morning/Noon/Evening

7. Howmany times you purchase fish in a day : Once/Twice/Thrice

8 Mode of purchase : Auction/fixed price/bargaining/others (specify)

9. Mode of sales . Auction/fixed price/bargaining/others (specify)

10. Basis of determining the selling price : Cost price/prevailing market price/ others (specify)

11 Mode of transport : Head load/Cycle/Autovan/Tempo/Trucks/ Others (specify)

12. Do you own any vehicle : Yes/No

If yes, give

1. Type
2. Capacity
3. Fuel: Petrol/diesel
4. Cost of the vehicle
5. Year of purchase
6. Source of finance: Own/credit
7. If on/credit
   a. Source:
   b. Date of loan (year):
   c. Amount:
   d. Interest:
   e. Amount repaid:
   f. Balance:
8. Propulsion charges (rate/km)

13. Do you hire any vehicle : Yes/No

If yes, give:

1. Source:
2. Type of vehicle:
3. Cost of hiring:
4. Periods of hiring:

14. *Loading and unloading charges paid (daily)* :

15. *Do you own any weighing machine or balance* : *Yes/No*

If yes, give

1. *Type:*
2. *Cost:*

16. *Do you employ any labourers* : *Yes/No*

If yes, specify

1. *Nature* : *Full-time/Part-time*
2. *Number*
   a. *Male*
   b. *Female*
3. *Remuneration:*
4. *Wage payment* : *Daily/Weekly/monthly*

17. *Do you have any building/store* : *Yes/No*

If yes, specify : *Owned/hired*

If owned, give the area/sq.ft.

If hired, give

a. *Source:*
b. *Area/sq.ft.*
c. *Rent/month:*

18. *Do you have cold storage facility* : *Yes/No*

If yes, give

1. *Capacity:*
2. *Cost:*
3. *Operating expenses/electricity per hour:*
4. *Source of finance* : *own/creidt*

   If on credit, give:

   a. *Source:*
   b. *Date of loan:*
   c. *Amount:*
   d. *Interest:*
   e. *Amount repaid:*
   f. *Balance*

19. *Do you undertake any grading before the sale of fish : Yes/No*

    If yes, which of the following type you follow

    1. *Species-wise.*
    2. *Size-wise*
    3. *Others (specify)*

20. *Packing materials used:*

    1. *Type: Bamboo baskets/baskets made of dried coconut leaves/palm leaf baskets/Aluminium basins/steel basins/ others (specify)*
    2. *Source:*
    3. *Quantity/rate*
    4. *Cost*

21. *Preservatives used:*

    1. *Type : Ice/others (specify)*
    2. *Source:*
    3. *Quantity/rate:*
    4. *Cost:*

22. *Marketing lots : Heaps/Baskets/Kilogram/Number/Others (Specify)*

23. *Payment of purchase price : Cash/credit*

    If credit, specify

    1. *Period:*
    2. *Interest:*
    3. *Cases of default:*
    4. *Remedy for default, if any*

24. *Receipt of sales proceeds : Cash/Credit*

    If credit, specify

    1. *Period:*
    2. *Interest, if any*
    3. *Cases of default:*
    4. *Bad or doubtful debts (Amount) :*
    5. *Remedy for default (if any) :*

25. Source of finance : Owned funds/credit

If credit, specify

a. Source: Bank finance/merchants/private money lenders Others (specify)

b. Date of loan:

c. Amount:

d. Interest:

e. Amount repaid:

f. Balance:

26. Normal daily working hours : From To

27. Market fee paid :

1.Type : Toll/Market entry fee/Rent/Others (specify)

2.Amount:

28. Details of commission:

	Rate	Amount
1. Received:		
2. Paid:		

29. What do you do with the the unsold stock

a. Keep in the cold storage

b. Drying

c. Others (specify)

30. Spoilage of fish : Daily Weekly

1. Quantity:

2. Value:

31. Marketing risk:

1. Nature : Unsold stock/spoilage/default in payment/ stock-out risk/others (specify)

2. Amount:

32. Do you have contracts with the customers for the regular supply of fish : Yes/No

If yes, specify

1. Customer:
2. Period:
3. Pricing:
4. Terms of supply:
5. Terms of payment:

AN EVALUATION OF THE INTERNAL DISTRIBUTION CHANNELS OF MARINE FRESH FISH IN QUILON DISTRICT

by

K. J. SEBASTIAN

ABSTRACT OF A THESIS

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ABSTRACT

'An Evaluation of the Internal Distribution Channels of Marine Fresh Fish in Quilon District' is aimed to identify the internal distribution channels of marine fresh fish; to analyse the nature, extent and trade practices of intermediaries; and to estimate the price-spread.

The sample frame consisted of the neighbouring markets of three landing centres and four distant markets. A sample of 86 intermediaries of various types constituted the sample of intermediaries. Two species of fish each representing the low, medium and high value species constituted the sample species of fish.

It is found that there exists separate distribution channels for export, dry and fresh fish. Fresh fish markets occupied a major share (88 per cent) in marine fish distribution. There are three and four major channels of fresh fish in the neighbouring and distant markets, respectively. It is found that only oil sardines and mackerals moved through all the distribution channels.

The intermediaries operating in the neighbouring markets consists of auctioneers, cycle/head-load fish distributors, women fish distributors and retailers and

those in the distant markets consists of wholesalers, commission agents, cycle/head-load fish distributors and retailers. There is considerable variations in the practices followed by different types of intermediaries.

Marketing costs, margins, and the fishermen's share in consumers' price varies among the distribution channels and species of fish. The fishermen's share in consumer price is inversely related with the length of the distribution channels. The fishermen's share in consumer rupee is less for low value species and high for high value species. It is observed that fishermen's share in consumer rupee is more in the channel, viz., fishermen -> auctioneer -> retailer -> consumer, for relatively large number of species.