



# Marketing Structure and Price Behaviour of Major Indian Carps

M A Salam and Gunajit Oinam

Krishi Vigyan Kendra, Andro, Imphal East ( Manipur)

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## ABSTRACT

The present study has identified three prominent marketing channels such as Producer–Retailer–Consumer (PRC), Producer–Vendor–Consumer (PVC) and Producer–Consumer (PC) through which fishes reach to the ultimate consumers. The producer's share in consumer rupee was the highest (100%) for the zero member channels, *i.e.* direct sale to consumer. It was observed that producers received higher share in the consumer rupee when wholesaler was not involved in fish trading. This indicates a very normal situation with greater marketing efficiency. It was found that no proper market shed was the major constraint identified with a quotient value of 93.40. The other constraints were lack of water supply, lack of storage facility, lack of toilet facilities, unhygienic condition of market, huge competition, high perishability, inconsistent supply of fish and high bargaining and lack of purchasing power with a quotient of 84.80, 79.20, 74.00, 70.00, 69.40, 67.80, 54.20 and 52.60, respectively. The demand for fish in rural areas of Manipur is increasing over time with the increase in purchasing power and standard of living. The present work concludes that though domestic fish marketing holds a huge potential, it is still highly unorganized and unregulated in Manipur.

**Key Words:** Marketing channel, Price spread, Constraint.

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## INTRODUCTION

Marketing is becoming more and more important for any economic activity. It plays a vital role in the case of perishable produce like fish. Marketing of any produce mainly depends upon availability of consumer and demand. It has been emphasized that there is a little development of domestic marketing of fish in the country except what has been developed traditionally. Marketing fish as compared to agriculture produce is not in a pivotal position in the state economy. Any extent of research on harvest, post harvest, processing and value addition have no meaning if the market systems are not well organized.

Marketing margin is of special significance in fish marketing as the price of fish fluctuates quite drastically as compared to manufactured-consumer-goods. These fluctuations in price provide enough scope to the middlemen to exploit the producers and consumers, which lead to inefficient and unfair market system.

From the North-East India, Manipur is the third

largest Inland fish producer with a production of 31,996 t against the requirement of 40,810 t during 2017 (Anonymus, 2017). The indigenous Indian Major Carps (IMC), namely Catla, Rohu and Mrigal and exotic carp namely Grass carp, Silver carp and common carp form the predominant group among carps cultured and marketed in the state. Unlike conventional marketing systems of agricultural products, fish marketing is characterized by heterogeneous nature of the product regarding species, size, weight, taste, keeping quality and price. It is worth mentioning that most of the markets in the Imphal valley are run and controlled by women. These are popularly known as the Ima Market or Mother's Market. The main Ima Market is located at Khwairamban Bazaar in the heart of the city where more than 3,000 women from different communities congregate everyday to sell local vegetables, fish, grain, handlooms, handicrafts and other household items.

Thus, the present study was undertaken for gaining a better idea of major carp marketing in

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the state of Manipur. The study would throw some light on marketing situation of carps which will be helpful for formulating policies for development of fisheries in general and major carps marketing in particular. Such a study would also provide a rational basis for proper planning and implementation of developmental programme in the state. The major objectives of the present research work were to study the market and market structure for Indian Major Carps in the state, to identify the marketing channels and estimate the price spread of major carps and to delineate constraints and evolve strategies for the development of major carps marketing in the state.

### MATERIALS AND METHODS

#### Location of study

The present study was conducted at fifteen different fish markets (Table 1) that took place round the year. Among the selected market places, Ima Market was located at Khwairamban Bazaar that was in the heart of the city where more than 3000 women from different communities congregate everyday to sell local vegetables, fishes, grains, handlooms, handicrafts and other household items. Singjamei Bazaar, Kwakeithel Bazaar and Mayang Imphal Market situated at Imphal West District; Konung Mamang Bazar, Khurai Lamlong Bazaar and Kongba Bazaar situated at Imphal East District; Thoubal Main Bazar, Lilong Bazar, Yairipok Bazar and Wangjing Bazar situated at Thoubal District; Bishnupur Bazar, Nambol Bazar and Moirang Bazar situated at Bishnupur District and Kakching Bazar situated at Kakching District.

**Table 1. List of selected market systems for surveying the data (n=15)**

S.No.	Market	District
1	Khwairamban	Centre of Imphal
2	Singjamei	Imphal West
3	Kwakeithel	Imphal West
4	Mayang Imphal	Imphal West
5	Konung Mamang	Imphal East
6	Khurai Lamlong	Imphal East
7	Kongba	Imphal East
8	Thoubal	Thoubal

9	Lilong	Thoubal
10	Yairipok	Thoubal
11	Wangjing	Thoubal
12	Bishnupur	Bishnupur
13	Nambol	Bishnupur
14	Moirang	Bishnupur
15	Kakching Bazar	Kakching

#### Collection of data

The information regarding the retailing and consumption was collected from these markets. Altogether, 750 respondents were interviewed using a well structured and pre-tested schedule to collect data regarding price behavior and marketing structure. Survey was carried out to record the marketing channels. The data were collected from all the identified members of marketing channels once in a month in each market throughout the sampling period during the year 2016-2017. Marketing margin was calculated by ascertaining price at different levels of marketing on the same date and deducting the cost of transportation of fish from production centre to the market plus incidental expenditures (Rao, 1978).

#### Calculation of different variables

The costs and return analysis was done separately for retailer and vendor. Capital cost, variable cost, fixed cost, total cost, revenue and net profit are the basic components for costs and return analysis of any business Raveendran *et al* (2000) and Ganesh *et al* (2010). The constraints were identified by personally interviewing the entire market channel. The respondents were asked to rank the constraints as per their severity (1 = Adequate; 2 = Moderate; 3 = Fair; 4 = Good and 5 = Low). These ranks were converted to score and then averaged to arrive at Rank Based Quotient (RBQ). Further, the constraints were then subjected to prioritization by estimating Rank Based Quotient (RBQ) as per Reddy and Sontakki (2003).

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### RESULTS AND DISCUSSION

#### Marketing structure

##### *Primary market*

All the fish producing centre in the state serve as a primary markets. The final phase in the supply line of fish was the retail markets located in the nook and corner of the state. The producer brought the fishes directly to the retailers or the retailers procure the fish from the primary market. Then the fishes are transported by auto rickshaw to the retail market.

##### *Retail markets*

Ima Market is the main retail market, which is located right in the heart of the Imphal city. The number of fish retailers varied from 200-300 during the study period and sometimes reaching upto 300-400 during the peak days of the week. The number

retails in other markets varied between 30 to 80 during the study period. All of the retailers in this market were women.

##### *Market intermediaries*

There were two principal types of market intermediaries with different functions in the present study. These were retailers and vendors.

##### *Marketing channel*

Marketing channels refers to the routes taken by the title to the goods as they move from producer to ultimate consumer including the ownership aspects of the producer. During the present study, it was found that, Indian Major Carps passes through the following prominent channels to reach the ultimate consumers i) Producer– Retailer –Consumer (PRC) ii) Producer – Vendor–Consumer (PVC) and iii) Producer–Consumer (PC). These results

**Table 2. Price spread analysis (percentage) of channel I.**

Particular	Channel I					
	R	C	M	GC	SC	CC
Consumer price	100 (198)	100 (178)	100 (194)	100 (200)	100 (100)	100 (190)
Retailers'						
Profit	10.35	2.81	9.54	15	10	12.89
Cost	2.5	2.78	2.55	2.48	4.95	2.61
Producer price	87.17	94.44	87.94	82.55	85.05	84.53

(Figure in parenthesis indicates value in rupee)

R=Rohu; C=Catla; M=Mrigal; GC=Grass carp; SC=Silver carp; CC=Common carp

**Table 3. Price spread analysis (percentage) of channel II.**

Particular	Channel II					
	R	C	M	GC	SC	CC
Consumer price	100 (200)	100 (200)	100 (200)	100 (200)	100 (110)	100 (180)
Vendor						
Profit	8.95	13.95	8.95	8.93	7.15	9.92
Cost	1.07	1.07	1.07	1.07	1.95	1.19
Producer price	90	85	90	90	90.91	88.89

(Figure in parenthesis indicates value in rupee)

**Table 4. Price spread analysis (percentage) of channel III.**

Particular	Channel III					
	R	C	M	GC	SC	CC
Consumer price	100 (180)	100 (170)	100 (180)	100 (180)	100 (100)	100 (170)
Producer price	100	100	100	100	100	100

(Figure in parenthesis indicates value in rupee)

were in line with the findings of Jayaraman (2000), Khobragade and Sonawane (2003), Ganesh *et al* (2010) and Devdatta (2014) that the major trading of the fresh water fish passes through different marketing channel to reach the ultimate consumer.

### Price spread

Price spread refers to the difference between the price paid by consumer and the price received by the producer for an equivalent quantity of product. It includes the cost incurred and margins earned by the market intermediaries in the process of marketing a commodity. The price spread details for the observed marketing channels I, II and III are given in Table 2, 3 and, 4 respectively.

The producer's share in consumer rupee was the highest (100 per cent) for the zero member channel, i.e. direct sale to consumer. The share of producer's in consumer rupee was 87.17, 94.44, 87.94, 82.55, 85.05 and 84.53 per cent for R, C, M, GC, SC and CC for the one member channel, viz., direct sale to retailers – consumer respectively and 90, 85, 90, 90, 90.91 and 88.89 percent for R, C, M, GC, SC and CC for the one member channel, viz., direct sale to vendor – consumer. It was observed that, in the present study fishermen received higher share in the consumer rupee when wholesaler was not involved in fish trading. Similar results were also reported by Sathiadhas (1992) and Rahaman *et al* (2013) where in fishermen received higher share in the consumer's rupee in the channel when there was no wholesaler in between the fishermen and consumer.

The marketing costs incurred in the channel I were 2.5, 2.78, 2.55, 2.48, 4.95 and 2.61 per cent for R, C, M, GC, SC and CC of the consumer

rupee respectively. The marketing cost incurred in the channel II were 1.07, 1.07, 1.07, 1.07, 1.95 and 1.19 per cent for R, C, M, GC, SC and CC of the consumer rupee II, III and IV respectively. Devaraj *et al* (1998) reported that at all India level, marketing costs ranged from 6 to 13 per cent of the consumers rupee for all marine fish varieties. So the finding of the present study with regard to cost of marketing were lower between the ranges reported by the earlier workers this may be due to difference in distance of primary centre, cost of transportation, market location etc.

As compared to the marketing costs, marketing margins were quit higher. Marketing margin for channel I were 10.35, 2.81, 9.54, 15, 10 and 12.89 per cent for R, C, M, GC, SC and CC and 8.95, 13.95, 8.95, 8.93, 7.15 and 9.92 per cent for R, C, M, GC, SC and CC for channel II of the consumer's rupee respectively .

### Price behavior

The price behaviour of fish is mainly characterized by wide fluctuations at all stages of transactions in the marketing chain. This is mainly due to perishable nature of fish and the high variation in its short run supply. Price is determined by the interaction of demand and supply at both production centers (primary markets) and consumer markets. The minimum price Rs 170, 160, 170, 180, 80 and 160 per kg for R, C, M, GC, SC and CC and maximum price of Rs. 180, 180, 180, 200, 100 and 180 per kg for R, C, M, GC, SC and CC was recorded in primary market respectively. For retailers the minimum and maximum price recorded for R, C, M, GC, SC and CC was Rs. 170, 160, 180,

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**Table 5. Ranking of problems and constraints faced by the market intermediaries in marketing of fish along with RBQ value.**

Sl. No	Problems and constraints	RBQ value	Rank
1	No proper market shed	93.40	I
2	Lack of water supply	84.80	II
3	Lack of storage facility	79.20	III
4	Lack of toilet facilities	74.00	IV
5	Unhygienic condition of market	70.00	V
6	Huge competition	69.40	VI
7	High perishability	67.80	VII
8	Inconsistent supply of fish	54.20	VIII
9	High bargaining and lack of purchasing power	52.60	IX

180, 90 and 160 per kg and Rs. 250, 350, 220, 220, 120 and 250 per kg respectively. In case of vendor the minimum price Rs. 180, 170, 180, 180, 90 and 170 per kg and maximum price of Rs. 200, 200, 200, 200, 130 and 200 per kg for R, C, M, GC, SC and CC respectively was recorded.

### **Prioritization of constraints**

The ranking of constraints faced by the market intermediaries in marketing of fish were then prioritized by estimating Rank Based Quotient (RBQ) and presented in Table 5. It was found that no proper market shed was the major constraint identified with a quotient value of 93.40. The other constraints were lack of water supply, lack of storage facility, lack of toilet facilities, unhygienic condition of market, huge competition, high perishability, inconsistent supply of fish and high bargaining and lack of purchasing power with a quotient of 84.80, 79.20, 74.00, 70.00, 69.40, 67.80, 54.20 and 52.60 respectively. Khobragade and Sonawane (2003) also reported that lack of facilities like retailing stall, drinking water supply, toilet, drainage system and temporary storage facilities were some of the problem identified.

### **CONCLUSION**

The demand for fish in rural areas of Manipur is increasing over time with the increase in purchasing power and standard of living. Though

domestic fish marketing holds a huge potential, it is still highly unorganized and unregulated. It has long been neglected for various reasons and serious efforts have not been made on marketing of fishes as compared to its production. The improvement in fish marketing system and distribution would not only reduce the demand-supply gap of fishes across the state, but would also contribute to food and nutritional security of a vast majority of resurgent middle income population at reasonable price. The hygienic conditions of fish markets should be improved tremendously not only to attract consumers to the markets but also to instill confidence among buyers to consume fish, which is regarded as a healthy food among animal products. Taking into account the substantial demand for fish consumption and the size of fish marketing business, there is a need for establishment of wholesale fish market and retail fish markets on modern line with adequate infrastructure facilities like drinking water, washing and cleaning sanitation, temporary storage, electricity, parking space etc. The local administration should either make allotment of the open spaces where the retailers themselves can construct their own shops as per their capacity or allot retailing sheds on lease or rental basis.

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