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STRUCTURAL PERFORMANCE OF FISH MARKET IN BOGURA DISTRICT, BANGLADESH

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ABSTRACT

One of the most important blossom trades in the economy of Bangladesh is fish marketing. To understand the current practices of fish market and marketing systems in Bogura district of Bangladesh, an investigation was conducted based on existing marketing system and economic features of marketing activities and inefficiencies. Fish marketing is almost exclusively maintained by the private sector and large number of intermediaries such as local traders, agents/suppliers, and retailers are involved in the distribution process of fish marketing. Data were collected from 45 fish traders through questionnaire interviews and participatory rural approach methods during December 2011 to May 2012 from three different fish markets named as Fateh Ali Fish Market, Godarpara Fish market and Khandar Fish market of Bogura district. The daily supply of fish in Fateh Ali Fish market, Godarpara Fish market and Khandar Fish market were estimated at 6.75 tons, 0.765 tons and 0.495 tons, respectively. Present supply and requirement of the fish showed a wide gap and virtually most of the fish (85%) is imported from outside where the local supply of fish is only 15%. There is a high consumer preference for Indian major carps i.e. rohu, catal, mrigal rather than exotic carps. The price of fish depends on market structure, species, quality, size, weight and season that's why a well-systematized marketing setup is crucial for reasonable price for fishes. The study revealed that almost all traders in three markets made a considerable amount of profit and broadly improved their food consumption facilities, standards of living, purchasing power, choice and ability as an economic sector. However concerns arise about the sustainable marketing system due to higher transport costs, poor transport facilities, inadequate supply of ice, lack of money for business, and poor institutional support. It is an urgent issue to establish ice factory, improvement of transport facilities, provision of governmental, institutional and banking assistance, introduction of fish quality control measures and training of fish market operators for improved their marketing system. Therefore, the present study emphasizes the fundamental marketing system, market flow of fish, availability of fish in these three markets, and market related constraints in Bogura district, Bangladesh.

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INTRODUCTION

Although fish farming has a high potential in Bangladesh for national economy but fish marketing system does not achieve self-sufficiency. Within the overall agro-based economy of the country, the contribution of fish production has been considered to hold good promise for creating jobs, earning foreign currency and supplying protein. About 97% of the inland fish production is marketed internally for domestic consumption while the remaining 3% is exported (Hasan, 2001). A large number of people, many of whom living below the poverty line, find employment in the domestic fish marketing chain in the form of farmers, processors, traders, intermediaries, day laborers and transporters (Ahmed et al., 1993; Islam, 1996; Kleih, 2001a; 2001b). Bangladesh exported fish and fisheries products about 75338 MT that worth 4282.82 million taka in 2015-16 of which frozen fish and shrimp shared more than 90% of the total exports of the fishery products and attained 3.7% of total export earnings of Bangladesh (DoF, 2017). Since fish production in Bangladesh is increasing over the years, its disposal pattern is very important as growers, wholesalers, retailers and consumers- all are affected due to value addition in the marketing process.

Bogra District, officially known as Bogura District is a northern district of Bangladesh, in the Rajshahi Division (Haq, 2012). Fish marketing in this area is almost exclusively a function of the private sector where the livelihoods of a large number of people are associated with fish production and marketing systems. However, the most serious marketing difficulties seem to occur in remote communities with lack of transport, ice, and poor road facilities and where the farmers are in particularly weak position in relation to intermediaries (DFID, 1997). To develop fisheries sector, proper emphasis should be given on fish marketing system. For bringing more economic prosperity for fishermen and to save them from exploitation by the middleman implementation of some institutional changes are very much needed. Considering all these points, the present study was conducted to know the existing marketing system in order to identify marketing inefficiencies that have negative impact on poor fishers and fish traders.

MATERIALS AND METHODS

Study area

The study was based on market survey obtaining information through a sample survey among fish intermediaries. In Bogura town there are about 12 fish markets. Among them 3 major fish market namely Fateh Ali Fish market, Godarpara Fish market and Khandar Fish Market were selected for the research work. Discussions about market history, marketing channel as well as marketing period in season/time were performed with fish farmers, fish traders, Upazila Fisheries Officer and key personnel.

Methodology

The data was collected over six months from December/2011 to May/2012. A combination of several survey techniques were used to collect data from the study area.

Primary data collection

Primary data was gathered by doing field surveys for the confirmation of the secondary data. The study area was visited officially to check on standards in term of fish distribution and marketing information. Primary data were collected by using questionnaire interviews, focus group discussion and crosscheck interviews with key informants.

Questionnaire interviews

Forty five fish traders were selected in three fish markets (15 from each) in the study area for the questionnaire interviews through simple random sampling method. Questionnaire was tested in the field before interviews. Traders were interviewed through a formal conversation at the market center. The consequences of the interviews were about fish marketing, pricing policy, trading actions, constrains of fish marketing and socio-economic conditions of traders.

Focus group discussion (FGD)

Focus group discussion was conducted with intermediaries in the study area to get an overview of fish distribution and marketing systems, constraints of fish distribution and marketing etc. A total of 15 FGD sessions (5 in each area) were conducted where each group size of FGD was 6 to 12 intermediaries.

Secondary data collection

Secondary data about fish distribution and marketing information were collected from government and non-government organizations such as Department of Fisheries (DOF), Upazila Fisheries Officers and Thengamara Mohila Sabuj Sangha (TMSS) etc.

Crosscheck interviews with key informants

Key informants are especially knowledgeable on particular topic and are expected to be able to answer questions in relatively important way about the knowledge and behavior of others, and especially about the operations of the system. Crosscheck interviews were conducted with key informants such as school teachers, local leaders, Upazila Fisheries Officers, MAEP staff and Relevant NGO workers where information was contradictory or requested for further assessment.

Data Processing and Analysis

After collection of data from the field, these were verified to eliminate errors and inconsistencies. Some of the collected data were in local units, due to respondent's familiarity with those units. These data were converted into international units. Preliminary data sheets were compared with the original questionnaire and result sheets to ensure the accuracy of the data entry. The data were processed and finally analyzed using Microsoft Excel software.

RESULT

Fish market structure

In Bogura, there are 10-15 retailers selling fish in each market and about 2 to 5 labours worked with a trader (retailer). Traders generally operate a capital of around Tk. 10,000 to 25,000 per day. From the survey, it was found that about 60% retailers used their own money for fish trading while the rest (40%) received loans from friends and relatives without paying any interest. Traders are involved in fish trading from early morning to the late evening in the fish markets.

Marketing infrastructure

Hygienic condition of Bogura fish markets is very poor. At the market time these place become muddy and walking become very difficult. Lack of supply of pure water bound to use contaminated river water for ice making and cleaning of fishes. There is no drainage system and sanitation receives a low priority at all stages of marketing. Due to lack of icing facilities in the market the quality of fishes are deteriorate quickly and also communication are not good enough with the producers and the traders.

Fish distribution and marketing system

A number of middlemen are involved between farmers and consumers in fish marketing system in Bogura Sadar. The market chain from farmer to consumers passes through a number of intermediaries, such as: local fish traders (paikers), wholesalers and retailers.

Channel I: Fish farmers →Paikers→ Wholesalers→ Retailers→ Consumers
Channel II: Fish farmers → Wholesalers→ Retailers → Consumers
Channel III: Fish farmers → Retailers→ Consumers

Market communication was usually being made through middlemen. The paikers carried the fish (about 80%) to the markets by their own or hired transport and sell them to wholesalers who in turn sold those fish to the retailers. Farmers partially sold their fish directly to the wholesalers (about 15%); the wholesalers sold it to the retailers. In a very rare case, farmers carried the fishes to the markets and sold them to the retailers. A total of 40 farmers were interviewed for market survey and almost all farmers stated that they sold their fishes to the paikers who collect the fish from the pond side.

Price of fish

The price of fish varies irregularly and more widely than other agricultural commodities. In this market, the main buyers are retailer. The price of fish is usually set through open auction by the Aratdars and wholesalers. According to rules of auction system, the price for an allotment of fish is settled securely through open, competitive bidding. The highest bidder receives the delivery of the fish in exchange of payment to the seller**.** The price of fish depended on market structure, species and size of fishes. Farmers noted that price varies according to size, freshness, supply and demand of fish. There are seasonal variations in prices with the highest in summer (March to May), and lowest in pre-winter (November to January). Farmers also mentioned that production cost of fish (i.e. costs of seeds and feeds of fish) increased significantly while the price of fish in the market has not increased to a similar degree.

Table 1. Average retail price (Tk /kg) of fishes in three different markets

Fish species		Size of Fish (Kg)	Fateh Ali Fish Market (Tk /kg)	Godar Para Fish Market (Tk/kg)	Khandar Fish Market (Tk /kg)
Indian major carps	Rohu	≤1	140	145	145
		1-2	200	210	215
	Catla	≤1	100	110	120
		1-2	150	155	160
	Mrigal	≤1	130	140	135
		1-2	190	195	200
Exotic carps	Silver Carp	≤1	95	95	100
		1-2	140	145	145
	Grass carp	≤1	90	95	105
		1-2	130	140	145
	Common Carp	≤1	120	125	125
		1-2	170	160	175
	Tilapia	≤1	80	85	85
		1-2	120	115	120
	Pangas	≤1	75	80	75
		1-2	90	95	95

From the above table it was found that Indian major carps were sold at higher price than exotic carps. Consumers or local traders are not willing to pay high prices for exotic carps due to less demand or taste of the fish. Market price for rohu varied between Tk. 140 to 145 (average Tk.145) per kg of fish. The highest average price of Indian major carps was noted for rohu (Tk. 145 kg) followed by catla (Tk. 110 kg) and mrigal (Tk. 135 kg). Among the exotic carps the highest price was found for common carp (Tk. 125 per kg) and the lowest for pangas (Tk. 75 per kg). However, the prices of silver carp and grass carp were significantly lower than other species. The price variation of silver carp and grass carp was very low, between Tk. 95-105 per kg. Market price for Tilapia Tk. 80-90 (average Tk. 85 per kg) for pangas was (Tk. 70 to 80), average Tk. 75 per kg.

Table 2. Average fish selling price (Tk/kg) by farmers (at pond side)

Fish species		Size (Kg)	Average selling Price (TK/kg)
Indian major carps	Rohu	0.8-1	130
	Catla		95
	Mrigal		110
	Silver carp		70
	Grass carp		90
Exotic carps	Common carp	1-1.15	100
	Tilapia		70
	Pangas		60

Season and time of fish trading

The season of fish trading is year round. In Fateh Ali Fish Market, traders are engaged in fish trading from 7.00 am to 10.00 pm while in Godar para Fish Market, traders are engaged from 7.00 am to 12.30 pm and in Khandar Fish Market, Traders are engaged from 7.30 am to 12.00 pm. It was found that almost all traders of three markets spend around 10 to 12 hours in fish selling if sufficient fishes are available. But some traders can sell their fish earlier and engage themselves in other homestead works.

Amount of fish sold

According to the study, it was found that a fish traders of Fateh Ali Fish Market sold an average 150 kg daily, compared with Godar Para fish market 75 kg per day and Khandar fish market 45 kg per day. There are 40-50 retailers involved in Fateh Ali Fish Market, 15-20 retailers in Godar para Fish Market and 10-12 retailers in Khandar Fish Market. The daily supply of total fish in Fateh Ali fish market and Godar para Fish market was estimated at 6.75 tons (average 45 traders x 150kg) , 0.765 tons (average 17 traders x 75kg) and 0.495 tons (average 11 traders x 45 kg), respectively.

Income from fish farming

From the survey result, it was found that the average annual income of farmers from fish production was Tk. 70,500/ha. The annual income of the farmers from the Fateh Ali Fish Market, Godar Para Fish Market and Khandar Fish Market was found to be Tk.80,200, Tk. 68,300 and Tk.57,250/ha/yr, as reported by the concerned fish farmers.

Income of wholesalers

Average daily income of wholesaler in Fateh Ali fish market was Tk. 650, while in Godarpara fish market at Tk. 325 and Khandar fish market Tk. 275. Wholesalers engage themselves a short period (2 to 3 hours) for fish selling as middlemen and earn a considerable amount of money in comparison with retailers. They earned around Tk. 300 to 550 per day, and engage themselves for a long time in marketing activities. It is true that the wholesalers are influential persons in the fish markets and they have a strong relationship with other intermediaries.

Market share by fish

High market demand was observed among the consumers in three market of Bogura district was for the fresh fish of Indian Major Carp followed by exotic carps. As well as small quantities of other fish, i.e., hilsa, catfish, tilapia, snake-head, live-fish, small indigenous fish, prawn and shrimp and other marine fish are also sold in the market. Most of the carps are imported from India and Myanmar. It is remarkable that consumers still like Bangladeshi fish more than exotic one. It is estimated that near about 35% of fish supplied in markets is Indian major carps, near about 30% exotic carps, 5% other carps, 10% hilsa, 10% catfish, 10% others including small chingri and marine fishes (Figure 1).

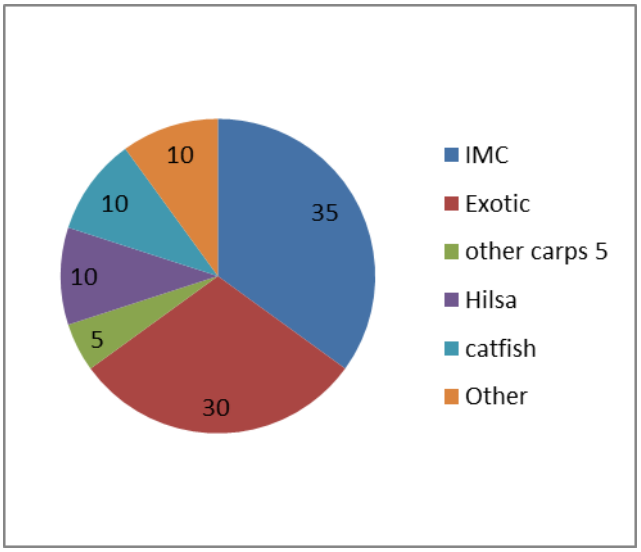

Figure 1. Species wise fish percentages in Bogura fish market

Table 3. Average selling prices (Tk. /kg) of fish for farmers (producers) and traders (retailers)

Fish species		Producers selling prices (paid by traders) Tk/Kg	Traders selling prices (paid by consumers) Tk/Kg	Gross profit by traders Tk/Kg
	Rohu	130	145	15
Indian major	*Catla*	95	110	15
carps	*Mrigal*	110	135	25
	Silver carp	70	95	25
	Grass carp	90	105	15
Exotic carps	*Common carp*	100	120	20
	Tilapia	70	85	15
	Pangas	60	75	15

Constraints of fish marketing

A number of constraints for fish marketing were stated by fish farmers and traders during the survey. It included higher production costs, higher harvesting and transport costs, poor road communication facilities, poor supply of ice, higher demand of labours, exploitation by middlemen, lack of capital, inadequate drainage system, poor water supply, poor sanitary facilities, unhygienic condition etc. According to them, political disturbances sometimes also affect fish transport, as well as marketing. As a result, the perishable fishes get damage and the farmers and traders are to sell these at a cheaper price; sometimes they even fail to get any return, due to decomposition of fishes.

Socio-economic conditions of fish traders

The proper development in fish production and marketing system require receptive and supportive socio-economic conditions. The social and economic conditions of the households of traders are of much significant in planning of development activities. The following sections deals with the social and economic conditions of fish traders (retailers).

Table 4. Constraints faced by the fish traders in marketing of fish

Constraints	Fateh Ali Fish Market	Godar para Fish Market	Khandar Fish Market	Total
	n =15	n = 15	n = 15	n = 45
Unhygienic market place	3 (20.0%)	4 (26.66%)	3 (20%)	10 (22.22%)
Lack of sanitary facilities	2 (13.33%)	2 (13.33%)	3 (20%)	7 (15.55%)
Higher transport cost	3 (20.0%)	2 (13.33%)	2 (13.33%)	7 (15.55%)
Higher production cost	2 (13.33%)	1 (6.66%)	2 (13.33%)	5 (11.11%)
Lack of capital	1 (6.66%)	2 (13.33%)	1 (6.66%)	4 (8.88%)
Poor ice supply	2 (13.33%)	2 (13.33%)	1 (6.66%)	5 (11.11%)
Exploitation by middlemen	2 (13.33%)	2 (13.33%)	3 (20%)	7 (15.55%)

n = Sample Size; Figure in the parenthesis indicates percentage

Age structure

The knowledge of age structure of traders is necessary for estimating potential and active human resources. From the market survey it was found that, maximum traders (40%) were quite young, less than 30 years of age. There was very little difference in average age of the fish traders among the three markets. Among the traders 40% were up to 30 years of age, 37.77% between 31 to 40 years, 15.55% between 41 to 50 years and 6.66% were more than 50 years of age (Table 5). The highest percentages of the fish traders in all the markets were up to 30 years age group.

Table 5. Age groups distribution of fish traders

Age distribution	Fateh Ali Fish Market	Godar para Fish Market	Khandar Fish Market	Total
	n = 15	n = 15	n=15	n = 45
Up to 30 years	7 (46.66%)	5 (33.33%)	6 (40.0%)	18 (40.0%)
31 -40 years	5 (33.33%)	6 (40.0%)	6 (40.0%)	17 (3777%)
41-50 years	2 (13.33%)	3 (20%)	2 (13.33%)	1 (15.55)
Above 50 years	1 (6.66%)	1 (6.66%)	1 (6.66%)	3 (6.66)

n = Sample Size; Figure in the parenthesis indicates percentage

Education level

Six categories were used to define education level; such as (i) no education (illiterate) (ii) primary level i.e. 1 to 5 class, (iii) secondary level i.e., 6 to 10 class, (iv) Secondary School Certificate (S.S.C. pass), (v) Higher Secondary Certificate (H.S.C pass) and (vi) Bachelor. From The survey, it was found that 26.66% fish traders were illiterate, 42.22% have primary level of education, 19.99 % secondary level, 8.88% S.S.C., 2.22% H.S.C and none of them found to have bachelor degree (Table 6). It was observed that the higher numbers of traders with primary level of education was in Godarpara fish Market (46.66%) followed by Khandar Fish Market (40%) and Fateh Ali Fish Market.

Table 6. Distribution of education level of fish traders

Educational level	Fateh Ali Fish Market	Godar para Fish Market	Khandar Fish Market	Total
	n = 15	n=15	n=15	n=45
No education (Illiterate)	4 (26.66%)	3 (20%)	5 (33.33%)	12 (26.66%)
Primary	6 (40%)	7 (46.66%)	6 (40%)	19 (42.22%)
Secondary	3 (20%)	2 (13.33%)	2 (13.33%)	9 (19.99 %)
S.S.C	1 (6.66%)	2 (13.33%)	1 (6.66%)	4 (8.88%)
H.S.C	1 (6.66%)	0 (0%)	0 (0%)	1 (2.22%)
Bachelor	0 (0%)	0 (0%)	0 (0%)	0 (0%)

n = Sample Size; Figure in the parenthesis indicates percentage

Family size

Family was defined as the number of persons belonging the same family. Large family sizes may make it difficult for the household to invest in fish trading, because of financial constraints and incorporation of family members. The average family size of traders was 5-6 in a single family. The average family size of the traders was higher for Fateh Ali Fish Market (7-8) than Godar Para Fish Market (4-5) and Khandar Fish Market (3-5).

Housing condition

The study reveals that 13.33% of housing structures were unconstructed while 48.88% were semi-constructed and 37.77% were constructed. Housing structure varied with traders. Higher number of semi-constructed and constructed housing were found for traders in Fateh Ali fish market and Godar Para fish market conversely the higher number of unconstructed housing was found in Khandar fish market (Table 7).

Table 7. Housing conditions of the fish traders

Housing condition	Fateh Ali Fish Market	Godar Para Fish Market	KhandarFish Market	Total
	n =15	n = 15	n = 15	n = 45
Unconstructed	1 (6.66)	2 (13.32%)	3 (19.98%)	6 (13.33%)
Semi-constructed	8 (53.32%)	7 (46.66%)	7 (46.66%)	22 (48.88%)
Constructed	6 (40%)	6 (40%)	5 (33.33%)	17 (37.77%)

n = Sample Size; Figure in the parenthesis indicates percentage

Income of fish traders

Traders are trying to improve their socio-economic conditions. During trading, fish traders always tried to get maximum profit. According to the survey, the average gross profit of fish traders (retails) was found higher in Fateh Ali fish market than Godar Para fish market, because of higher supply of fish as well as higher demand. The average net profit of a fish trader in Fateh Ali fish market was estimated at Tk. 625/day/trader, while it was Tk. 450/day/trader and Tk.300/day/trader in case of Godar Para fish market and Khandar fish market, respectively (Table 8).

Table 8. Daily average net profit of fish traders in different markets

Name of fish market	Profit range (Tk/day)	Average profit (Tk/day)
Fateh Ali fish market	500-700	625
Godar Para fish market	400-500	450
Khandar fish market	250-350	300

From the survey, it was found that fish retailers made an average gross profit of Tk. 20-150 per kg of carp buying from wholesalers and selling to consumers. Although fish traders can earn considerable amount of money from trading but they spend a large portion for labour, ice, electricity bill and shop rent in market place.

Improvement of socio-economic condition of fish traders

Although fish traders are comparatively poor, but survey results showed that they have improved their socio-economic conditions through fish trading, as stated by 86.66% of fish traders. A few traders (13.33%) have not obtained any specific benefits, due to large family size, poor education and lack of capital for this business (Table 9).

Table 9. Changes in the Socio-economic condition of fish traders

Improvement of socio-economic condition	Fateh Ali fish market	Godar Para fish market	Khandar fish market	Total
	n =15	n=15	n=15	n = 45
Yes	14 (93.33%)	13 (86.99)	12 (80%)	39 (86.66%
No	1 (6.66%)	2 (13.33%)	3 (20%)	6 (13.33%)

n = Sample Size; Figure in the parenthesis indicates percentage

DISCUSSION

Fish is a highly perishable commodity and it undergoes rapid spoilage if not disposed of in due time. As such, it demands special care in handling, packaging and transportation before being placed to the consumers for sale. Though fish farming is regarded as industry in many countries of the world but the fish farmers of Bangladesh do not communicate directly with the consumers. As such, fish market chains from the producers to ultimate consumer are in operation. This chain passes through a number of intermediaries such as, local fish trader, beparies, aratdar, whole sellers and retailers. In our present study three types of marketing channels were observed. These channels were: (a) fish farmers- paikers- whole sellers-retailers- consumer (b) fish farmers- whole sellers- retailers- consumers and (c) fish farmers- retailers- consumers.

The fish producers in the surveyed areas usually contact with the local agent/fish supplier before harvesting of fish, and the local agents purchase the fish at the pond side and carry them to the fish markets. Here they make a small profit in the tune of 5-10% of the farm price. On the other hand, some of the local agents do not invest any capital rather they act as a commission agent at 3-5% commission for sending the fish to the market. The role of local agents/suppliers in the present study are very much in line with the observation of Rokeya et al. (1997) reported that local agents collect and purchase fish from the farmers on commission basis in Rajshahi fish market. Ahmed et al. (2005) reported the market chain of Gazipurfrom farmers to consumers consisted of a number of intermediaries such as, local fish traders, agents, whole sellers and retailers. Local fish traders earned a profit of 1-5% of the sale proceed of fish at wholesale price. Alam et al. (2010) also identified a similar market chain in Swarighat of Dhaka district.

The price of fish varies with the types of species, sizes, freshness, market demands and seasons. Usually the prices of the fishes are higher in April to July when the fish are in short supply. On the contrary, prices remain lower during November to January which seemed to be related with the increased availability of both captured and cultured fishes during this period in the market. It has been found that the price of Indian major carps always remained higher than the exotic carps. Rahman (2003) reported that major carps such as, rohu, catla, and mrigal fetched higher price than exotic carps in Gazipur district. Quddus (1991) concluded fish price is influenced by seasonably, abundance, market structure and origin of fish. Fish imported from India and Myanmar was sold at a much lower price than our native fish. Shrivastava and Ranadhir (1995) reported that rohu, catla and mrigal are the highly priced fish in India. Hasan and Middendrop (1999) reported that rohu was the most expensive fish followed by catla, mrigal, common carp and grass carp in the southwest Bangladesh. The study reported that wholesalers make a significant amount of profit of Tk. 500-800 per quintal of fish over their purchase price. The wholesalers operate with a capital of Tk. 20,000 - 30,000 per day. The wholesalers invest more capital than the retailers, and as such, they have greater control over the agent and retailers. The present findings are in agreement with the report of Ahmed (2005) who observed similar scenario in Gazipur Sadar and Sripur Upazilla market.

The fish farmers in the present study received higher percentage of retail price (72- 87%) which is considered to be desirable. Panikkar and Sathiadhas (1989) observed that fishermen's share in consumers money varied from an average of about 40% for cheaper varieties of fish to about 65% for high priced varieties in Kerala, India. Rahman and Sabur (1979) found that average fishermen's share of the consumers price was 60-63% depending on whether they sold fish on land or at sea. Ahmed (1983) reported that the producers were receiving 50-65% of the retail price. The bulk of marketing margin was earned by the assembler and the distributor and retail margin were only 5-10% of the consumer’s price. Farmer's share of consumer’s price was found to be inversely related with the length of the marketing channel (Parween et al., 1996). Shorter is the marketing chain, the more is the farmer's share to consumers pricing (Shrivastava and Ranadhir, 1995). The production and marketing of fish was a profitable business. People may earn a substantial amount of cash income all the year round by which the incumbents may improve their economic condition. Therefore, an efficient production and marketing of fish may be considered as a means of social and economic change for those who are engaged in this business. Farmer's share of the consumer’s price was found reasonable. Margins of traders were lower. There is scope for increasing the farmer's share by reducing the cost of marketing.

In our study the fish market and marketing environment were found to be manifested with a large number of problems. These were higher transport cost, poor road communication, absence of icing facilities, inadequate water supply, poor hygienic and sanitation condition etc. Immediate improvement of fish market and marketing system in Bangladesh were also reported by Khan (1995), Subasinghe (1995), and Mia (1996). We have reported that young people particularly the Muslim are coming to the fish marketing business in increased number. Active participation of the young educated people in fish marketing network was also observed by other researchers. Siddique (2001) reported that Muslim fish traders were dominating the fish trader's community in Mymensingh district and Rahman (2003) found increased number of Muslim fish traders in Gazipur and Sreepur fish markets as well. The fish farmers, fish traders (Paikers) and other intermediaries have been benefited from fish farming and fish marketing business. This has been reflected in their higher income, improvement of housing conditions, increased consumption of food and better health and clothing. Establishment of Fish Farmers Corner in the existing market place may guarantee the fish producers receiving a fair price of their farm produce.

CONCLUSION

Finally, the study concluded that the fish marketing system of Bogura district demands modernization. Lack of adequate transport and communication facilities, insufficient credits, different pricing policies, lack of market regulation and quality control is prime obstacle. Improvement of the existing physical infra-structures in term of drainage, water supply, icing facilities in fish markets are required to ensure hygienic and good quality of fishes to be available to the consumers at reasonable price. Adequate financial and technical support should be provided by the Government in the development of fish marketing system in Bangladesh.

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