FISH MARKETING SYSTEM IN KHULNA, BANGLADESH

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ABSTRACT

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The present study concerned about the fish marketing systems in Khulna, based on existing marketing systems, economic features of marketing activities and inefficiencies. In Khulna, fish marketing is almost exclusively a preserve of the private sector where livelihoods of a large number of people are associated with fish distribution and marketing systems. The market chain from producers to consumers passes through a number of intermediaries: local traders, agents/suppliers, wholesalers and retailers. Based on a sample of 40 traders from the two different markets in Khulna, the daily supply of fish market in New Market and Gallamary fish markets were estimated at 12-13 and 10.5-11.5 tones, respectively. Virtually most of the fish (80%) is imported from local Gher of Khulna and its adjacent districts, the seafood supply amount only 20%. It is estimated that 46% of fish supplied in markets is of carps 11% hilsa, 9% catfish, 7% small indigenous fish, 8% prawn and shrimp, 7% tilapia and 12% others including small chingri (shrimp). The price of fish depends on market structure, species quality, size and weight and it was found that the price per kilogram of carp increases with size. All traders in two markets made a considerable amount of profit.

Introduction

The fisheries sector plays an important role in food consumption, nutrition, employment and export. The sector contributes more than 5% of Bangladesh's GDP and 9% of its export earnings and it employs 1.4 million people.

Fish production is an integral part of the marketing process as fish and fishery products are highly traded commodities. The total fish production in Bangladesh was estimated at 1.78 million tons in 2003-04, of which 1.4 (79%) and 0.38 (21%) million tons came from inland and marine waters respectively (BBS, 2005). About 97% of the production is marketed internally for domestic consumption while the remaining 3% exported. As compared to export market, domestic market is huge, varied and complex and in terms of volume, value and employment, the domestic market is great. A large number of people, many of whom living below the poverty line, find the employment in the domestic fish marketing chain in the form of farmers, processor, traders, intermediaries, day labours and transporters (Ahamed, *et. al.,* 1993; Islam, 1996 and DFID, 2000)

Fish marketing in Bangladesh is exclusively in the hand of the private sectors. Three levels of market or marketing systems are observed in the distribution channel of small indigenous species of fish trade. These are primary, secondary/higher secondary and final consuming markets. Fish collectors commonly known as mahajans or aratdar s procure fish from the catchers, with the help of local brokers who get a profit margin or commission from the mahajans. However, the most serious marketing difficulties seem to occur in the remote communities which lack of transport, ice, poor road facilities and where the farmers are in a particularly weak position in relation to intermediaries (Rahman, 1997). In addition, the middlemen have established a new marketing chain based on the extreme exploitation of the fish farming communities by setting up an illogical artificial pricing policy through intermediaries at different levels. As a result marketing margin is often high and prices are high that makes dissatisfaction to consumers, farmers, fishermen and poor traders.

The fresh fishes are mainly marketed in the vicinity of the households in the rural market of Bangladesh. The fishes, which are not sold in fresh, are generally used for producing dried and fermented products. The highest quality loss of 35% occurs due to longer exposure of fish at high temperature followed by 25% rough handling and excessive pressure. The present study is concerned with the existing marketing systems to identify marketing inefficiencies that having adverse impact on farmers, fishermen and poor traders.

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MATERIALS AND METHODS

The study area was Khulna City and its two large markets; one is New Market and Gallamary fish market. New Market and Gallamary fish market is both wholesale and retail market.

The data were collected over six (06) months from October to March, 2003. Participatory Rapid Appraisal (PRA) is a group of methods to collect information from rural communities in participatory fashion (Chambers, 1992). For the present research, PRA tool like as Focus Group Discussion (FGD) was conducted fish farmers/fishermen to get an overview on fish distribution and marketing systems, constraints of marketing etc, A total of 10 FGD sessions (5 in each market) were conducted where each group size of FGD was 6 to 12.

Cross-check interviews were conducted with key informants such as Varsity Professors, School Teachers, Local leaders, service holders both private and government and relevant GO & NGO officers and staffs.

Data collected from various sources were coded and entered into a data base system using Microsoft Excel Software. At each stage of survey data sheets were compared with original data sheets to ensure the accuracy of data entered.

RESULTS

Infrastructure of Fish Market

The structure of the market could be characterized by a situation where there are many buyers and sellers. In Gallamary there are 20 to 25 wholesaler or aratdar and 10 to 15 retailers while in New Market 10 to 15 aratdar and 25 to 30 retailers. A number of people also work with the traders as daily basis. Gallamary market is held at every morning from 6 am to 10 am is known as the largest whole fish market in khulna region while New Market is held from 8 am to 9 pm every day. Duration of trading in New Market is longer due to greater number of consumer. It is also seemed that the position of New Market is in the center of Khulna city and three large residential area (Sonadanga, Boyra and Mujgunni) is adjacent to its surroundings where a huge population lived. Infrastructure of this two markets are still in poor shape. The facilities are generally in adequate for handling highly perishable commodities like fish. Lack of preservation facilities and shortage of ice supply are in nturn affects on quality and price.

Fish Distribution Channel

Three levels of market or marketing systems are observed in the distribution channel of fish trade (Figure 1). They are primary, secondary/higher secondary and final consuming markets.

Primary market

This is the marketing place at the catching point, in the rural area. Fish collectors, commonly known as *mahajans* or *aratdars* procure fish from the catchers, with the help of local brokers called *dalals* who get a profit margin or commission from the *mahajans*. Part of the catch is also locally sold by the catcher/farmer or by local retailers. Sometimes fishermen/fish traders bypass these channels and sell fish directly to the secondary markets.

Secondary market

The collector bring the fish from primary market to the landing centers, usually to the nearest upzila market or at a place well linked by rivers, road and rail networks. The *mahajans* sell the fish here to distributors known as *beparies*, generally with the help of *aratdars*, the commission agents. The *beparies* transport the fish to the nearest city/town markets by road, rail or boat. These are the main distributing markets and here the *beparies* sell the fish to another set of distributors known as *paikars*, again with the help of *aratdars*.

Final consuming markets

On purchasing fish from the higher secondary market, the *paikar* sell the fish to the retailers. There are two channels of retailing: the urban retailers sell the fish in the urban markets in permanent stalls or go out with the fish on their heads or in tricycle vans, to sell them at the residential areas. Others, the retailers take the fish to sub-urban places or to the villages.

In Bangladesh, fish is marketed through many different channels and outlets. There is lack of marketing infrastructure for both wholesale and retail market. For the most part, the transportation and storage facilities are poor. The involvement of large percentage of the middlemen and commission agents reduce benefit to the fish producers (Ahmed et al. 1993, Mazid 1994).

In Gallamary market local traders and suppliers brought fish to wholesale markets where prices are determined in a competitive market situation while in new market most of the fish (70%) collected from different localities adjacent to Khulna city and rest (30%) from three large wholesale markets (Rupsha, Natun Bazar and Gallamary) and in the Sundarbans area.

Figure 2 shows the distribution channel of fish in two markets studied. Local traders are normally based in local markets near to farm area or of fishing communities. It appears that local traders first chose local village. Agents or suppliers carry fish from remote village to wholesalers in market centres and earns 1 to 5% commission for their services. Wholesaler sales to retailer and ultimately final consumers buy from retailers.
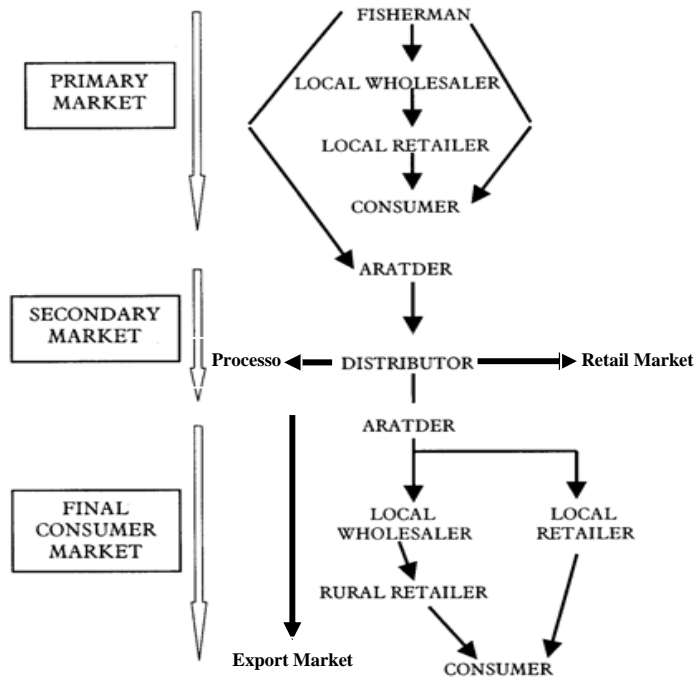

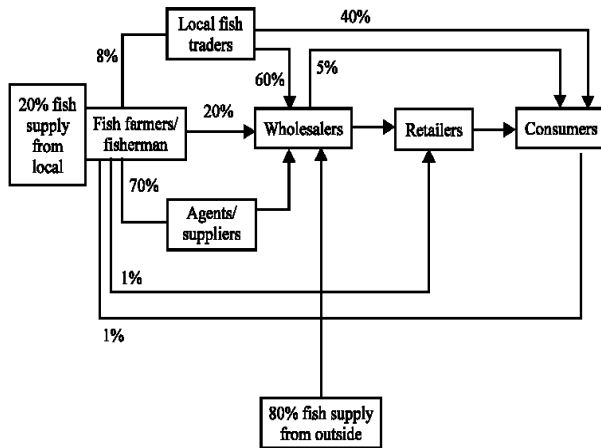
Figure 1. General Flow chart for marketing channel of fish

According to the survey, it was found that a retail fish trader in Gallamary sold an average 40 to 50kg per day while in New Market a retailer sold per day at 70 to 80kg. there is a significant difference ($p<0.05$) between amount of fish sold by traders and marketers. Demand of is increasing in new market due to increasing population.

Figure 2. Flow chart for marketing channel of fish in two markets

Species Sold in Gallamary and New Market
It was estimated that about half of the fish sold in two markets were Indian carps, hilsa, catfish, vetki (Koral) tilapia, small indigenous species, prawn and shrimps, small shrimps and others including live fish and seafoods. This is shown in Figure 3 and 4.

Price of Fish

There is no pricing policy fixed by the government and trade association. Prices are set by different methods, such as open auction, bargain and whisper. Open auctions are conducted only in wholesale market. The price is settled by competition among intending bidders. In presence of buyer the bids are loudly announced by auctioneer (commission agents. The present study found that auctioneer usually charged 2 to 5% of the sale price from wholesalers.

A price trend can be determined for carps as around 50% of the market and a significant difference was observed during the study period. Indigenous Carps are more preferable than exotic carp due to its taste and having high prices. While low income level people buy exotic carps (silver carp, grass carp, mrigal etc. The prices of other species varied time to time and fluctuated at zig-zag movement due its availability in different seasons.

Figure 3. Percent (%) of fish sold in Gallamary

Profit margin

From the present study, it was found that the primary producers hardly get 40-45% of the retail market prices of their products. Fishermen or fish farmers share of the retail prices varied considerably depending upon the cost of transportation, icing and leaseholders of the markets. Middlemen got 35-40%, the quality or weight loss 5-10% while the remaining 20-25% was spent for transportation, preservation, icing and other charges.

Figure 4. Species wise fish percentages (%) in New Market

Constraints

There is a little or no initiative to improve the quality of fish marketed because the demand of fish is always higher than the supply. As a result, fish of any quantity are sold in the market although the traders face serious problems including heavy losses, wastage and poor price. After harvest all the fishe passes a number of channels and intermediaries and are transported by road, by trains, by bus, and by boat/launch mainly using bamboo baskets. The loading and unloading at different stages of transportation, long exposure to high temperature, improper use of ice, rough and unhygienic method of handling, contamination and lack of knowledge on quality aspects among the actors involved are main the contributing factors for the quality loss.

Due to lack of adequate transportation, storage and preservation facilities, every year a huge quantity of fish cannot be utilized properly. Although no systematic studies were conducted in the past but the available reports suggest that considerable post harvest losses take place during various stages of handling, transportation and preservation. According to BOBP (1985), about 30% fish landed are marketed fresh (uniced), about 40% iced, 20% sun dried and the remainder is frozen, salted, smoked or made into fish meal. Fresh fish are marketed through various marketing chains: primary, secondary, the higher secondary and consuming market (Coulter and Disney 1987). Rail, road and water transports are used to carry fish to the distant places from landing point and it takes 7-9 days after harvesting which is less than normal shelf-life of tropical species if the condition of handling and storage is ideal (Uddin and Das 1994). The most important contributing factors of post-harvest losses are probably associated with rough handling, improper and delayed icing, longer exposure to high temperature, contamination and lack of knowledge on sanitation and personal hygiene.

Concluding Recommendation

It is a common indicator of marketing efficiency is the size of marketing margin which makes a huge gape between the farmed price and consumer level of prices. Some specific suggestions for improving existing marketing system that affect on the food, nutrition as well as export earnings are (a) improvement of
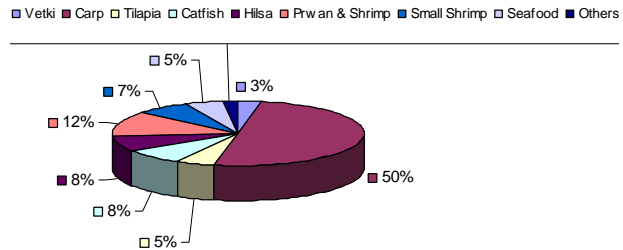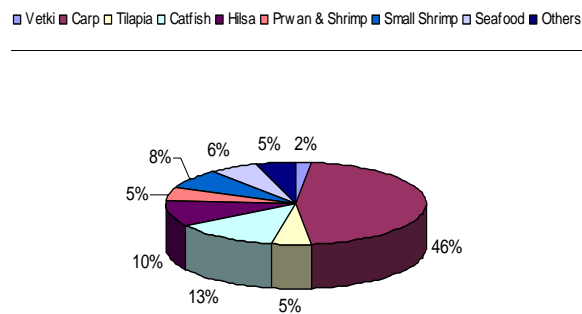
transportation, preservation and shipment facilities, (b) establishment of sufficient ice factory adjacent to culture ground, (c) introduction of modern wholesaling and retailing facilities (d) provision for government and private funding assistance and (e) improvement of hygienic conditions of landing centers and markets. It is important that only the public-private relationship can improve the existing system of fish marketing.

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