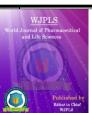
Research Artícle

World Journal of Pharmaceutical and Life Sciences WJPLS



www.wjpls.org

SJIF Impact Factor: 3.347



DISTRIBUTION OF CREDIT, FLOW OF FISH AND SHARING SYSTEM ON MARKETING CHANNEL IN EIGHT FISH LANDING CENTERS IN THE SOUTH - EAST PART OF THE BAY OF BENGAL AT CHITTAGONG, BANGLADESH.

Roy Bikram Jit*, Nripendra Kumar Singha, A.H.M. Hasan Ali & Md. Gaziur Rhaman.

Scientific Officer, Marine Fisheries Survey & Management Unit, Chittagong, Bangladesh.

Article Received on 12/11/2015 Article Revised on 03/12/2015 Article Accepted on 25/12/2015

*Correspondence for Author Roy Bikram Jit Scientific Officer, Marine Fisheries Survey & Management Unit, Chittagong, Bangladesh.

ABSTRACT

The study was conducted during January to December, 2013 to analyzed marketing channel at Gohira, Jahazghata, Katghor, Anandabazar, Kattoli, Kumira, Bashbaria and Sitakunda fish landing centers in south-east part coastal region of the Bay of Bengal at Chittagong district. Data were collected from fishers, depot owner, whole sellers, retailer and consumers about money/loan (credit)

distribution, fish marketing system and sharing system of harvested fish. In these areas major three types of fishing observed in artisanal fisheries. In gill net fishing, mainly harvest national hilsa fish (*Tenualosa spp.*); at set bag net fishing, juvenile of fishes, shrimps, crabs and etc are exploits and in pakua jal (modified set bag net) fishing caught sergestid shrimp or 'gura icha' (*Acetes spp.*).

In these coastal areas most of the fishermen are needy; most of them have no boats or nets & works as daily labor and have a large family consist 6-8 members. They always receive loan or dadan from the local elites or dadandar/ Mohajon (Moneylender) who are rich in land, money & mussel energy. Marketing channel in the study areas, where as the money/credit moves from aratdar to fishermen as loan/dadon through different intermediaries such as, 'aratdar', 'bapari,' 'mohajon', 'wholesaler', 'faria', 'paiker' and fishermen.

Prior to hils season, fishers require loan and according to conditions, bound to sell the total hils catch to the dadandar's arat or godhi in 200/- taka less per mond (37.5 kg) to the present

market value. In the market chain, fishes moves from fishermen to consumers via different market intermediaries like as, Fisher men, mohajon, bapari, aratdar, faria, wholesaler, paiker and consumer. And in sharing system; boat and nets suppliers gets 50-60% and 35-40% share on the total hilsa catch respectively. Among the rest 5-10% of fish, maji (Boatman) gets 50% of fish or selling money and another 50% divided into 3 or 4 people, who's had work as daily labor in fishing. It was observed that, marketing system in the study areas are same in some other landing centers and few have different.

Keywords: Landing center, fishing season, loan (dadan), dadandar, retailer and consumer.

INTRODUCTION

Fish is the major source of protein in the diets of the most Asian people including Bangladesh. Rapid expansion of supply has been necessary to meet the domestic demand. Marine fisheries in Bangladesh consist of both artisanal and industrial, in which artisanal sector-contributes 87.09% and the rest 12.91% by the trawl fishing of the total landing (DoF, 2012-13). Marine fish production has been growing rapidly in recent years, because of introduction of trawlers, mechanized fishing boats, number of gears and active fishing days. There are 235 fish landing center are present in the 14 coastal District of 64 Thanas (CMFSP, 2000). Fish landing center is a place where different types of fresh fish and fisheries commodities are accumulated from different sources like river, beel, pond, gher, estuaries and sea (Rhaman, 2013). These fishes are transferred from here to consumption /consumer markets via different channel. Fish landing center plays a vital role in quick and smooth disposal of fresh fish (BFDC, 2001) in Chittagang region is recognized as the fisheries zone of our country. Fish landing and distribution in Bangladesh is in complex condition due to the involvement of many stakeholders in the distributional channel (Rahman, 2013). To make fish available to consumers at the right time and in the right place requires an effective marketing system.

Most of the Marine fishes captured in artisanal sector are marketed by the fishermen in the vacuity of the landing center through a number of intermediaries such as hawker (small seller), retailer (whole sellers) or agents (moneylenders). Large quantities of high value fish are usually transported to processing industries for production of vary value added production. While smaller quantities of small fishes are disposed off the hawkers and various retailers selling at local daily market.

Dadan is a kind of loan given to the fishermen by Aratdars and Mohajans (traditional money lenders) on condition that fish are required to be sold to them compulsorily. Sometimes prices are predetermined (Alam, 2012).

The government policy is to improve the quality of fish landed and marketed for domestic and export purposes. Efforts are being made to improve landing, facilities and encouragement is being given the standard of wholesale and retail market (Khan, 1996). The marine fish exploiting areas and landing centers of our studies are located in the south and south-eastern parts of the Bay of Bengal of Bangladesh. Fish production is an integral part of the marketing process as fish and fishery products are highly traded commodities (Dcomampo, 1998). A large number of people, many of whom living below the property line, find employment in the domestic fish marketing chain in the form of fishers, processors, traders, intermediaries, day laborers and transporters. In Bangladesh fish marketing is almost exclusively a preserve of the private sector. However, the most serious marketing difficulties seem to occur in remote communities, which lack of transport, ice, poor road facilities in relation to intermediaries (Ranman, 1997 and Kleih, 2001).

Several negotiators are involved in this distribution of channel to collect fish from the fishermen and make a linkage path between fishermen and wholesalers (Mohajon) or commission agents. Again, wet fish can enters the secondary or tertiary markets where it passes through more than one commission agent. Both commission agents and wholesaler locally known as "Mohajons" play principal roles in fish distribution (Nowsad, 2010).

Fish marketing is very important to meet the demand of animal protein, to balance our investment, profit and sustainable management of fisheries by different intermediaries or middlemen. In addition, the middlemen have established a new marketing chain based and the extreme exploitation of the fish farming communities by setting up an artificial pricing policy through intermediaries at different levels. The price of hilsa depends on quality, size and weight, season, market structure, supply and demand, etc. Prices also vary from market to market. Prices in town markets tend to be higher than in coastal markets. Fishers' incomes are not only limited by their position in the market chain but also by the fact fish resources are declining. As a result marketing margin of fish is often high and fish prices are high that makes dissatisfaction to consumers, fishermen and poor traders. Therefore it is important to know the existing fish marketing system to identify marketing inefficiencies that having negative impact on poor fishermen and traders.

OBJECTIVES

The specific objectives of the study are i) to identify different marketing channels and intermediaries whose are involve there in and their roles in local coastal fish marketing to the distribution of credit (ii) determine to value addition in terms of fish movement from fishers to consumers (iii) determine marketing margins of the intermediaries and (iv) socio-economic conditions of the coastal fishing family. A related, complementary study deals with price transmission mechanisms of flow of credit and flow of fish in the south-east coastal zone.

MATERIALS AND METHODS

The study were conducted in order to collect data from eight fish in landing centers in small scale fisheries at Chittagong district, where maximum fish are landed in artisanal sectors. Under the Chittagong district the name of fish landing centers are- Gohira, Jahazghata, Katghor, Anandabazar, Kattoli, Kumira, Bashbaria and Sitakunda fish landing center. These eight landing centers are very important to the boat owners for fish selling, fish traders for selling and buying and the consumers for buying the fish. The primary data were assembled through field survey at the fisher's level by using a prescribed questionnaire. The questionnaire form was filled in by interviewing the organizers, boat owners (nekari), retailers(wholesaler), aratdars (assemblers), consumers and adandar/mohajon(moneylender), who directly supply the loan with high interest and also fisherman (consumer), who was consumed the loan (dadan) from dadandar. All the collected data were analyzed by computer. Remarkable changes were observed in many landing center. To collecting data, the fisherman does not agree to supply actual massage some times. So it was difficult to get clear idea about their role in fish marketing channel.

RESULTS

During January to December, 2013 data were collected from selected 8 fish landing centers about the fish marketing channel, which are mainly depend on distribution of money (credit), flow of fish and sharing system on exploit's fish or selling money.

a) Distribution of money (credit)

Marketing channels are the alternative routs of product flows from producers to consumers (Kohls and Uhl, 2005). Distribution of money from aratdar to fishermen as flow of credit for benefit where aratdar supply loan (dadon) and fishermen recover it to supply the exploit fish, which are occur different intermediaries is called fish marketing channel. Cradit supply

chains of gill net, behundi net and pakua net fishing in the study areas observed are shown below:

The longest supply chain involves seven intermediaries for gill net, five for set bag net and three for pakua jal and these are fishers, nikari (boat owner), piker, faria (middleman), aratdar, retailer and consumer.

i) Gill net fishing: Money or credit distributed mainly from aratdar to fishermen via different intermediates as debt which observed in hilsa catching season (from July to October) during study period. At Gohira, Kattoli and Kumira fish landing center money distributed as loan (dadon) from aratdar to baparis, baparis to mohajon, mohajon to whole seller, whole seller to faria, faria to paiker and paiker to fishermen lastly who received this loan. At Jahaj ghata and Bashbaria fish landing center money distributed from aratdar to baparis, baparis to mohajon, mohajon to wholesaler, whole seller to faria, faria to paiker and paiker to fishermen lastly who received this loan. At Jahaj ghata to mohajon, mohajon to wholesaler, whole seller to faria, faria to paiker and paiker to fishermen lastly. In Katghar fish landing center money distributed from aratdar to mohajon, mohajon to faria, faria to paiker and paiker to fishermen lastly. In Ananda bazar fish landing center money distributed from aratdar to baparis, baparis to mohajon, mohajon to faria, faria to paiker and paiker to fishermen lastly. In Sitakunda fish landing center money distributed from aratdar to baparis, baparis to paiker and paiker to fishermen lastly. In Sitakunda fish landing center money distributed from aratdar to baparis, baparis to paiker and paiker to fishermen (Table, 1).

| Table: 1. Distribution of money in gill net fishing at Chittagong coastal areas during Jan | |
|--|--|
| to Dec, 2013. | |

| Name of the landing centers | Fishing method | fishing times/ month | Distribution of money | | | | | | |
|-----------------------------------|---------------------|----------------------------|-----------------------|--------|---------|--------------|-------|--------|-----------|
| Gohira | gill net fishing | July to October | Aratdar | Bapari | Mohajon | Whole seller | Faria | Paiker | Fishermen |
| Jahaj ghata | gill net fishing | July to October | Aratdar | Bapari | Mohajon | - | - | Paiker | Fishermen |
| Katghar | gill net fishing | July to October | Aratdar | - | Mohajon | - | Faria | Paiker | Fishermen |
| Ananda bazar | gill net fishing | July to October | Aratdar | Bapari | Mohajon | - | Faria | Paiker | Fishermen |
| Kattoli | gill net fishing | July to October | Aratdar | Bapari | Mohajon | Wholesaler | Faria | Paiker | Fishermen |
| Kumira | gill net fishing | July to October | Aratdar | Bapari | Mohajon | Wholesaler | Faria | Paiker | Fishermen |
| Bashbaria | gill net fishing | July to October | Aratdar | Bapari | Mohajon | - | - | Paiker | Fishermen |
| Sitakunda | gill net fishing | July to October | Aratdar | Bapari | - | - | - | Paiker | Fishermen |

ii) ESBN fishing: In ESBN fishing fishermen engaged October to May to exploit juveniles of fish and shrimp and some fishers received dadon from aratdar and few of them from mohajon. At Gohira, Kattoli and Kumira landing center distributed of credit flow from aratdar to bapari, bapari to mohajon and lastly transfers it mohajon to fishermen. In Jahaj ghata, Ananda Bazar, Bash baria and Sitakunda fish landing center money distributed aratdar to bapari, bapari to fishermen lastly. At Katghar landing center money distributed as credit flow aratdar to bapari, bapari to mohajon and lastly transfers mohajon to fishermen (Table, 2).

| Table: 2 Distribution of credit in ESBN fishing at Chittagong coastal areas during Jan |
|--|
| to Dec, 2013. |

| Name of the landing centers | Fishing method | fishing times/ month | Distribution of Credit | | | | | |
|-----------------------------------|-------------------|----------------------------|------------------------|--------|---------|-----------|--|--|
| Gohira | ESBN fishing | October to May | Aratdar | Bapari | Mohajon | Fishermen | | |
| Jahaj ghata | ESBN fishing | October to May | Aratdar | Bapari | - | Fishermen | | |
| Katghar | ESBN fishing | October to May | Aratdar | - | Mohajon | Fishermen | | |
| Ananda bazar | ESBN fishing | October to May | Aratdar | Bapari | - | Fishermen | | |
| Kattoli | ESBN fishing | October to May | Aratdar | Bapari | Mohajon | Fishermen | | |
| Kumira | ESBN fishing | October to May | Aratdar | Bapari | Mohajon | Fishermen | | |
| Bashbaria | ESBN fishing | October to May | Aratdar | Bapari | - | Fishermen | | |
| Sitakunda | ESBN fishing | October to May | Aratdar | Bapari | - | Fishermen | | |

iii) Pakua jal fishing: In pakua jal fishing fishers engaged only from November to February and exploits mainly *Acetes spp*. In this fishery few fishermen take loan from mohajon to prepared net or boat. In Gohira, Ananda bazar and Kumira fish landing center mohajan supply loan to fishermen via baparis. At Jahaz ghata and Katghar landing center mohajan supply loan to fishermen directly. In Kattoli, Bashbaria and Sitakunda ghat fish landing centers no dadon system observed for pakua jal fishing (Table, 3).

| Name of the landing centers | Fishing method | fishing times/ month | Distribution of Credit | | | | | |
|-----------------------------------|----------------------|----------------------------|------------------------|--------|-----------|--|--|--|
| Gohira | Pakua jal fishing | November to February | Mohajon | Bapari | Fishermen | | | |
| Jahaj ghata | Pakua jal fishing | November to February | Mohajon | | Fishermen | | | |
| Katghar | Pakua jal fishing | November to February | Mohajon | - | Fishermen | | | |
| Ananda bazar | Pakua jal fishing | November to February | Mohajon | Bapari | Fishermen | | | |
| Kattoli | Pakua jal fishing | November to February | Mohajon | Bapari | Fishermen | | | |
| Kumira | Pakua jal fishing | November to February | Mohajon | Bapari | Fishermen | | | |
| Bashbaria | Pakua jal fishing | November to February | Mohajon | - | Fishermen | | | |
| Sitakunda | Pakua jal fishing | November to February | Mohajon | - | Fishermen | | | |

Table: 3, Distribution of credit in Pakua jal fishing at Chittagong coastal areas duringJan to Dec, 2013

b) Fish distribution channel (Flow of Fish)

Fishermen or Boat owner (Nikari) sell fish to Faria or Dadonder, dadonder sell fish to Aratder via dadal, Aratder sell fish to Baparies, baparies sell fish to Retailers and retailers sell to local market for consumption. Fish marketing channel in Gohira, Katghar, Kattoli and Kumira are almost entirely conducted, financed and regulated by traditional, hardworking and skilled middlemen. The market chain from farmers/ fishermen to consumers passes through a number of intermediaries; local fish traders, agents, wholesalers and retailers.

i) Gill net fishing: Flow of fish in gill net fishing or mainly hilsa fishery occurred during July to October from fishermen to consumer via different intermediates. At Gohira, Katghar, Kattoli and Kumira fish landing center fishers are bound to supply exploiting hilsa fish to mohajon if he took loan, mohajon supply fish to baparis; if fisher does not took any loan, he supply exploit hilsa fish directly to baparis, baparis supply to aratdar, aratdar supply to whole seller via faria, whole seller supply to paiker and lastly consumer buy hilsa fish from paiker as table food. In Jahaj ghata fish landing center fishers supply fish to mohajon, mohajon supply fish to aratdar, aratdar supply to Wholesaler via faria, whole seller supply to paiker and lastly paiker supply fish to consumer. In Ananda bazar and Sitakunda fish landing center fishers supply fish to mohajon, mohajon, mohajon supply fish to baparis' bapari

aratdar supply to whole seller, whole seller supply to paiker and paiker supply fish to consumer lastly. In Bashbaria fish landing center fishers supply exploiting fish to mohajon, mohajon supply fish to aratdar, aratdar supply to whole seller, whole seller supply to paiker and lastly consumer buy hilsa fish from paiker (Table, 4).

| Name of the landing centers | Fishing method | fishing times/ month | | | | Flow | of Fish | | | |
|-----------------------------------|---------------------|----------------------------|---------------|---------|--------|---------|---------|------------|--------|----------|
| Gohira | gill net fishing | July to October | Fisher men | Mohajon | Bapari | Aratdar | Faria | Wholesaler | Paiker | Consumer |
| Jahaj ghata | gill net fishing | July to October | Fisher men | Mohajon | - | Aratdar | Faria | Wholesaler | Paiker | Consumer |
| Katghar | gill net fishing | July to October | Fisher men | Mohajon | Bapari | Aratdar | Faria | Wholesaler | Paiker | Consumer |
| Ananda bazar | gill net fishing | July to October | Fisher men | Mohajon | Bapari | Aratdar | - | Wholesaler | Paiker | Consumer |
| Kattoli | gill net fishing | July to October | Fisher men | Mohajon | Bapari | Aratdar | Faria | Wholesaler | Paiker | Consumer |
| Kumira | gill net fishing | July to October | Fisher men | Mohajon | Bapari | Aratdar | Faria | Wholesaler | Paiker | Consumer |
| Bashbaria | gill net fishing | July to October | Fisher men | Mohajon | - | Aratdar | - | Wholesaler | Paiker | Consumer |
| Sitakunda | gill net fishing | July to October | Fisher men | Mohajon | Bapari | Aratdar | - | Wholesaler | Paiker | Consumer |

Table: 4. Flow of Fish in gill net fishing at Chittagong coastal areas during Jan, to Dec, 2013.

ii) **ESBN fishing:** ESBN fishing engaged from October to May and exploit juvenile of fish and shrimp. At Gohira fish landing center fisher supply to Mohajon / paiker, then Mohajon/ paiker supply to retailer, lastly retailer supply small fish to consumer. In Jahaj ghata landing center fisher supply fish to paiker, then paiker supply to retailer and retailer supply fish to consumer. At Katghar, Ananda bazar, Bashbaria and Sitakunda landing center fishermen supply fish to retailer, lastly retailer supply to consumer. At Kattoli and Kumira fish landing center fishermen supply fish mohajon, mohajon supply fish to retailer, lastly consumer buy fish from retailer (Table, 5).

| Table: 5. Flow of fish in ESBN fishing at Chittagong coastal areas during Jan, to Dec | , |
|---|---|
| 2013 | |

| Name of the landing centers | Fishing method | fishing times/ month | Flow of Fish | | | | |
|-----------------------------------|-------------------|----------------------------|--------------|--------------------|----------|----------|--|
| Gohira | ESBN fishing | October to May | Fishermen | Mohajon /Paiker | Retailer | Consumer | |
| Jahaj ghata | ESBN fishing | October to May | Fishermen | Paiker | Retailer | Consumer | |

| Katghar | ESBN fishing | October to May | Fishermen | - | Retailer | Consumer |
|-----------------|-----------------|-------------------|-----------|---------|----------|----------|
| Ananda bazar | ESBN fishing | October to May | Fishermen | Paiker | Retailer | Consumer |
| Kattoli | ESBN fishing | October to May | Fishermen | Mohajon | Retailer | Consumer |
| Kumira | ESBN fishing | October to May | Fishermen | Mohajon | Retailer | Consumer |
| Bashbaria | ESBN fishing | October to May | Fishermen | - | Retailer | Consumer |
| Sitakunda | ESBN fishing | October to May | Fishermen | Paiker | Retailer | Consumer |

iii) Pakua jal fishing: Paku jal fishing engaged during November to March and mainly exploits gura icha (*Acetes sp.*). At Gohira, Jahazghata, Katghar, Bashbaria and Sitakunda fish landing centers fishermen supply gura icha to retailer, retailer supply to consumer. In Ananda bazar landing center fishers buy gura icha from consumer directly. At Kattoli and Kumira fish landing center fishermen supply gura icha to paiker and paiker lastly supply to consumer (Table, 6).

| Table: 6, Flow of fish of Pakua jal fishing at Chittagong coastal areas during Jan to Dec, |
|--|
| 2013. |

| Name of the landing centers | Fishing method | fishing times/ month | | Flow of fish | |
|-----------------------------------|----------------------|----------------------------|-----------|--------------|----------|
| Gohira | pakua jal fishing | November to March | Fishermen | Retailer | Consumer |
| Jahaj ghata | pakua jal fishing | November to March | Fishermen | Retailer | Consumer |
| Katghar | pakua jal fishing | November to March | Fishermen | Retailer | Consumer |
| Ananda bazar | pakua jal fishing | November to March | Fishermen | - | Consumer |
| Kattoli | pakua jal fishing | November to March | Fishermen | Paiker | Consumer |
| Kumira | pakua jal fishing | November to March | Fishermen | Retailer | Consumer |
| Bashbaria | pakua jal fishing | November to March | Fishermen | Retailer | Consumer |
| Sitakunda | pakua jal fishing | November to March | Fishermen | Paiker | Consumer |

Bikram et al.

c) Sharing system on exploit fish or selling money

For exploitation of fishes and shrimps need boats, gears and labors. In Chittagong coastal areas maximum fishermen obtain are in low income; have no boats or gears, most of them work for exploiting fish; few of them work to repair nets and boats as daily labor. For fishing they use gill net (mainly tong jal & SMD), set bag net (ESBN & pakua jal) and some times long lines. Sharing based system for exploitation of fish observed in every fish landing centers, which are depend on engage boat, net, dadon or loan system and on exploiting fishes. If any depot owners supply only the boats, in condition of sharing system for gill net fishing, gets 55-60% share on the total exploited hilsa fish, net supplier's gets 30-35% of the exploitation, after reduction of oil cost. And the rest 10-15% of fish for maji (Boatman) & labors after the reduction of all food & others (Beri/ cigarette / pan) cost.; maji gets 50% of the fish or selling money and rest 50% divided into 2 to 4 people, whose work as labor. If the Mohajon supply the boats and nets with bearing all cost, then boatman and others labor got only 5% hilsa fish or money after selling with the rate of current price (3% for maji and rest 2% sharing in all labor) or got monthly salary (maji-8000/- to10,000/- and each labor gets 3000/- per month) only for the hilsa monsoon. In some fish landing center, it was observed that in sharing system; if boat owner & nets suppliers is one man, he got up to 90 % share on the total hilsa catch; if boat owner and nets suppliers are other person, then for boat gets 50-60% and for net 35-40% fish after reduction of oil cost & other expenditure(mainly mail). Among the rest 5 % of fish, maji (Boatman) gets 50% on the total exploiting of fish or selling money and rest 50% divided into all daily labor, who's engaged in fishing.

But for ESBN and pakua jal fishing sharing system are different. For ESBN fishery boat owner or mohajon gets 80% fish of the total catch with the reduction of oil cost. But for pakua jal fishing mohajon gets 60% of the total catch, after reduction of oil cost.

DISCUSSION

Gill net fishing in artisanal fisheries mainly caught hilsa fish from July to October. At these times most of the fishermen take loan (dadon) in large quantities from paiker via faria, whole seller, mohajon and baparis, which are mainly supply by Aratdar. October to May is the ESBN fishing times, where credit distributed in small volumes from aratdar to fishermen via baparis and mohajon. In pakua jal fishing credit distributed accidentally from mohajon to fishermen directly or via baparis.

Hilsa fish flow in gill net fishing from fishermen to consumer via mohajon, baparis, aratdar, faria, wholesaler and paiker in 2 or 3 marketing channel. In ESBN fishing, juveniles of fish and shrimp flow from fishermen to consumer via mohajam /paiker and retailer. Gura icha exploits in pakua jal fishing, which flow from fishermen to consumer via retailer or directly. In sharing system of exploited fish boat owner or net owner gets 50-60% or 30-35% fish respectively reduction of oil cost and the rest portion divided into 3 to 5 fishers.

Fishermen are the first supplier of fish to the market. *Nikari* (informer) is a middleman who does not have the ownership of the product but establishes a bridge between buyers and sellers and receive commission from fishers. *Faria*, another type of intermediary, is found in hilsa marketing system who purchases a small quantity of hilsa fish form fishermen far away from the market and carry it to the fish market and sell it to *aratdar* or retailer in the study areas. *Paiker* or *bepari* handles large volume of fish. They purchase fish from fishers through *aratdar* in the local market and sell them to the retailers through *aratdar* or commission agent in secondary market. *Aratdars* arrange selling of fish and receive a commission. *Aratdars* often act as a supplier of *dadan*. Their shops (establishments) are called 'Depot'. This group of traders mostly offers *dadon* - cash as loans in different levels by different condition. *Retailers*, the last intermediaries of fish marketing channel do not have any permanent establishment, but they have fixed places to sit in the market places or landing centers (Alam, 2012).

Intermediaries in the fish- market chain are very powerful and they have established a market chain that exploits fishers. Fishers cannot go directly to secondary markets to sell their catch due to the constraints described and the existing market-chain system (Haque, 2010).

Fishers are often exploited by middlemen because of their isolation and the difficulties they face due to poor roads, lack of transportation and limited communication. Middlemen can also exploit fishers because they control access to the market chain and the consumer. However, the most serious market differentials seem to occur in remote communities that lack transport, ice, road facilities and where the fishers are in a particularly weak position in relation to intermediaries (Rhaman, 1997).

Rhaman, 2009 argue that middlemen have established a fish- marketing chain based on extreme exploitation of fishers through intermediaries at different levels. Fishers live sub-

human lives and are the most deprived and poorest class (Chowdhury,1993) and past studies have made it clear that fishers' incomes are generally low (Cunningham,1994).

The fish -market chain in Bangladesh, which is both traditional and complex, plays an important role in connecting fishers to consumers through a chain of middlemen. Coulter and Disney (1987) suggested that fresh fish are marketed through different chains that include primary, secondary and final consuming markets. A great number of people, many of whom are living below the poverty level, find employment in the domestic fish market chain as fishers, traders, intermediaries, day laborers and transporters (Ahmad, 1993).

Fishermen receiving dadon from aratdars / mohajons are bound to sell their produce to them, sometimes at predetermined prices, which in most cases are lower than prevailing market prices (Alam, 2012). Supply chain of hilsha comprises of six intermediaries, namely fishermen, aratdar, paiker, aratdar, retailer and consumer for the distant domestic market. Two other identified channels for hilsha marketing involve respectively five intermediaries (fishermen, aratdar, paiker, retailer and consumer) and four intermediaries (fishermen, aratdar, retailer and consumer) and four intermediaries (fishermen, aratdar, retailer and consumer) and four intermediaries (fishermen, aratdar, retailer and consumer) for the local markets. Domestic supply chains for shrimp marketing involve four intermediaries (shrimp farmer, aratdar, retailers and consumer) for local market and five intermediaries (shrimp farmers, aratdar, paiker, retailer and consumers) for distant markets (Alam, 2012).

In terms of volume, value and employment, the fish market in Bangladesh is large. The fish marketing systems are traditional, complex, and less competitive but play a vital role in connecting the fishermen and consumers, thus contributing significantly in the 'value adding' process (Nesar, 2005).

The aratdars are at the centre of the entire marketing system and their role goes far beyond what one would normally expect of a commission agent, including financing of suppliers and buyers, and often dealing on their own account (Coulter and Disney, 1987).

From the report on (Alam, 2012), (Haque, 2010), (Rhaman, 1997), (Chowdhury, 1993), (Cunningham, 1994), Disney (1987), (Ahmad, 1993), (Nesar, 2005) and (Coulter and Disney, 1987) are the more or less same that, in fish marketing channel dadon (loan) is the main factor for fishers with high interest and the exploiting product are must be sold to the dadandar with low market price, which are mainly observed in hilsa harvesting period.

The study address the overall fish marketing system of Chittagong coastal areas fishing communities with particular emphasis of value addition during the process of marketing channel of tong jal, set bag net, pakua jal, and incidentally hooks and lines fishing. The main objective of fish marketing is to reach the exploiting product to the consumer, which is not possible without marketing system. It helps to give a good connection between fishermen, different intermediaries and consumers. The main problems of affecting fish marketing in coastal areas are poor transport, poor physical facilities and ignorance of the factors affecting fish quality.

CONCLUSION

Fish marketing system are depend on the fishing seasons, exploiting of fish and shrimp species and it's distribution, economic & social transactions between fishermen, money lenders and consumers; distribution of money (credit) as loan; flows of fish products as money return and sharing system on fishes for fisher's lively hood; whose are related to the cost management and economic return system, where the dadondar (moneylender) receive high interest era to era from the fishers, who took loan(Dadan) from Dadandar.

ACKNOWLEDGEMENTS

The author thanks to Md. Zakir Hossain, which helped to organize the all table of the paper and all data collectors- Mr. Nasim Ahmad, Md. Abul Kalam Azad, Md. Kabir hossain and Md Abdul Khalak and lastly thanks to all fishers & assemblers whose gave me data.

REFERENCES

- Alam, M. F, Palash, M. S, Mian, M. I. A and Dey, M. M, 2012. Marketing of Major Fish Species in Bangladesh: A Value Chain Analysis. Research Fellow, Institute of Agricultural and Food Policy Studies, University Putra Malaysia, Malaysia. A report submitted to Food and Agriculture Organization for the project entitled A Value-chain Analysis of International Fish Trade and Food Security with an Impact. Assessment of the Small- scale Sector, November 2012.
- Ahmad, M, Rab. M.A and Bimbao, M. A.P, 1993. Household Socio economics, Resource use and Fish marketing in two Thanas of Bangladesh. Manila, Philippines: ICLARM, pgs. 4-17.
- BFDC, 2001. Role of fish landing center in Bangladesh. In Saronika of Matshya Pakkha. Ministry of Fisheries and Livestock. Government of the Peoples Republic of Bangladesh.

- Cunningham, S, 1994. Fishermen's Incomes and Fisheries Management. Marine Resource Economics 9(3).
- Coulter, J. P and Disney, J. G, 1987. The handling processing and marketing of fish in Bangladesh. Overseas Development Natural Resources Institute (ODNRI) Bulletin No.1.
- Chowdhury, A.1993. Socio-economic analysis of fisher community. Mimco, Dhaka: Department of Fisheries.
- CMFSP, 2000. Survey Report, Coastal Marine Fisheries Management Strengthening Project. Marine Fisheries Office, Chittagong, Department of Fisheries.
- DoF, 2012-13, Fisheries Statistical Year Book of Bangladesh, Department of Fisheries, Bangladesh. Ministry of Fisheries and Livestock.
- Deomampo, N.R.1998. Farming system, marketing and trade for sustainable aquaculture. In: Report on a regional Study and Workshop. Aquaculture Sustainability and the Environment. Network of Aquaculture Centers in Asia- Pacific, pp: 203-217.
- Haque, M.A, 2010. Fish marker chain and Fisher's incomes in Sherpur District, Bangladesh. Rural livelihoods and potential land scopes: Co- management in the Wetlands and Forest of Bangladesh.
- 11. Kleih, U.K Alam and R. Dastider, 2001. Report of workshop on poverty alleviation and Livelihood security among the coastal fishing communities market and credit access issues. National Resources Institute (NRI) Reports No. 2613: 94.
- 12. Khan, M.N.A, 1996. Investigation on the Production, Marketing and Quality Aspects of some Exportable Dried and Salted Dehydrated Fishery Production in Bangladesh. A Thesis of Master of Science (M.S) in Fisheries Technology, Department of Fisheries Technology Bangladesh Agriculture University, Mymensingh, pp: 2-5.
- Nowsad, A.K.M.A, 2010. Post- harvest loss reduction in fisheries in Bangladesh: A way forward to food security. Final Report PR #5/08. Food And Agriculture Organization (FAO) of the United Nations, Dhaka, pp.171.
- 14. Nesar, A, Dr, 2005. Value chain analysis for hilsa marketing in coastal Bangladesh, Department of Fisheries Management, Bangladesh Agricultural University.
- 15. Rahman, M. S, Khatun, M.B, Hossain, M.N, Hossan and A.A.K.M. Nowsad, 2013. Present Scenario of Landing and Distribution of Fish in Bangladesh. Department of Fisheries Technology, Bangladesh Agriculture University, Mymensingh-2202, pp-1488.
- 16. Rahman, A.K.A, 1997. Fish marketing in Bangladesh. Status and issues. In Open water Fisheries of Bangladesh (Eds. Cho-fa Tsai and M. Youssouf Ali), The University Press Limited, Dhaka, Bangladesh, pp: 99-114.