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MARKETING SYSTEM AND STATE OF FISH MARKETS IN HINGOLI DISTRICT, MAHARASHTRA

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ABSTRACT :

Indian fisheries is important sector contributing around 1.1% of total GDP and 5.15% of agriculture GDP of country as well as involvement of 15 million people in different fishery activities for their livelihood and revenue generations.Most of the fish produced and captured in India are sold in local domestic markets. Most of the Indian fish markets are under developing stage with unsatisfactory infrastructure and physical facilities. Substantial fish catches from Hingoli are generally sold in local and domestic markets at Hingoli, Sengaon, Kalamnuri, Basmat and Aundha. The present work was undertaken to study the condition of Fish markets in Hingoli district with respect to market facilities, appliances, cold chain, market building, hygiene, sanitation, major species sold, price structure, women involvement and marketing system. The study revealed that the none of the fish market in the Hingoli had proper Freezing and cold storage facility as well as market building. Most of the market were set on roadside in open in unhygienic conditions. Carps species constituted part with 68 % to 73% share in total species sold. Price structure in the fish markets varied with different factors such as species, size, quality, season etc. Study also showed meager involvement of women in fish marketing activities in hingoli fish market. The study revealed urgent need for provision of facilities in fish markets of Hingoli district for development and upliftment of fishermen and fishery sector of district.

Key words: *Market, Inland, Fish, Hingoli, Price, Market facilities, Hygiene*

INTRODUCTION

Fisheries is an important sector in India contributing to about 6.3% to global fish production. Indian fisheries sector contributes around 1.1% of total GDP and 5.15% of agriculture GDP of country (Ayyappan, 2006). With third place among fish producing countries in the world, India recorder total fish production of 0.76 million metric tonne 2016 through involvement of 15 million people in different fishery activities for their livelihood and revenue generations.

Most of the fish produced and captured in India are sold in local domestic markets. The condition of market vary from place to place. Most of the fish markets are still under developing stage having very few facilities. Infrastructure as well as physical facilities in Indian fish market are very unsatisfactory. Very little importance is given to hygiene and sanitation in most of the fish markets. Major hindrance in fish marketing includes perishability and large quantities, storage, transportation, quality and quantity of commodity, low demand elasticity and high price spread (Ravindranath, 2008).

Hingoli district is endowed with substantial resources such as rivers, reservoirs, lakes, village lakes, etc. These resources produces substantial amount of fish catches which are mostly sold in local and domestic markets. Hingoli district has five blocks (namely Hingoli, Sengaon, Kalamnuri, Basmat and Aundha) each having fish market place. Fishermen in and around each block gather their catches and brought it to the market places.

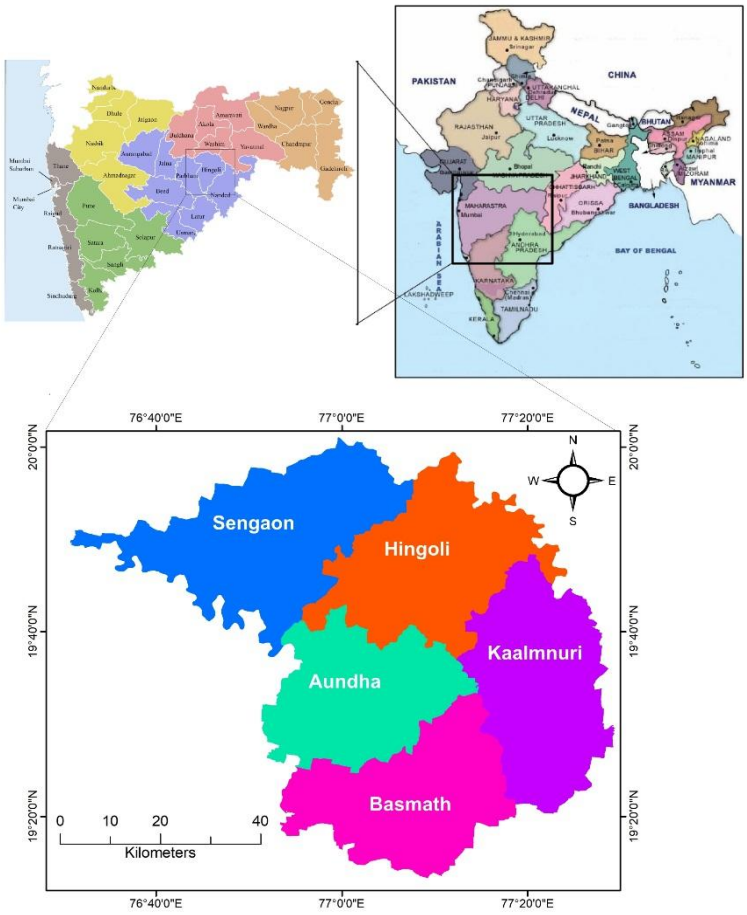
The present study was carried out to analyse the condition of these markets with respect to market facilities, appliances, cold chain, market building, hygiene, sanitation, major species sold, price structure, women involvement and marketing system.

MATERIAL AND METHODS

The study was carried out to analyze the condition of fish markets with respect to market facilities, appliances, cold chain, market building, hygiene, sanitation, major species sold, price structure, women involvement and marketing system. The data was collected through field visits, observations and personal interviews in major fish markets at block level of Hingoli district. The field visit were carried out in fish markets on weekly bazars day during year 2017-18. The consumers purchasing fish were also interviewed for the quality, preferences and utilization after informing of the purposes of study.

Study area:

Fish markets located at block level and district level of the Hingoli district were areas of study in the present work. During the present work, fish markets of Hingoli, Sengaon, Basmat, Kalmnuri and Aundha were studied and analysed for prevailing conditions. The collected data was organised and calculations were made using computer system. The results were tabulated and represented in graphical formats for better presentation and understanding.



RESULTS & DISCUSSION:

Present study was carried out to analyse the situation of major fish markets located at five block of ofHingoli districts. The fish markets of Hingoli district were studied with respect to market facilities, appliances, cold chain, market building, hygiene, sanitation, majorspecies sold, price structure, women involvement and marketing system.The outcome of the present study are elaborated below with these aspects.

1. Market building:

None of the fish market in the Hingoli district has special building facility. The fish markets are set in open spaces, mostly along roadside. Fisherman and fish seller bring fishes in crates, *Ghamelas,* bags and other such containers. These fishes are set on sheets or even on open rocks for sell. Permanent roofs were not seen any of the fish market of Hingoli district under study. Fisherman and fish seller set temporary roofs and covers using plastic and gunny bag sheets for protection.

2. Appliances and equipment used by seller:

Fish sellers used knives for cutting along with special scrappers to remove scales and wooden platform for cutting and filleting. Cut fishes were generally given in plastic bags. Crates, *Ghamelas* and bags

were used for storage of fishes. None of the seller in the fish markets of Hingoli district was found using refrigerator at market place.Padghane*et al.,* 2016 also reported use of nylon bags for crab transportation and marketing.

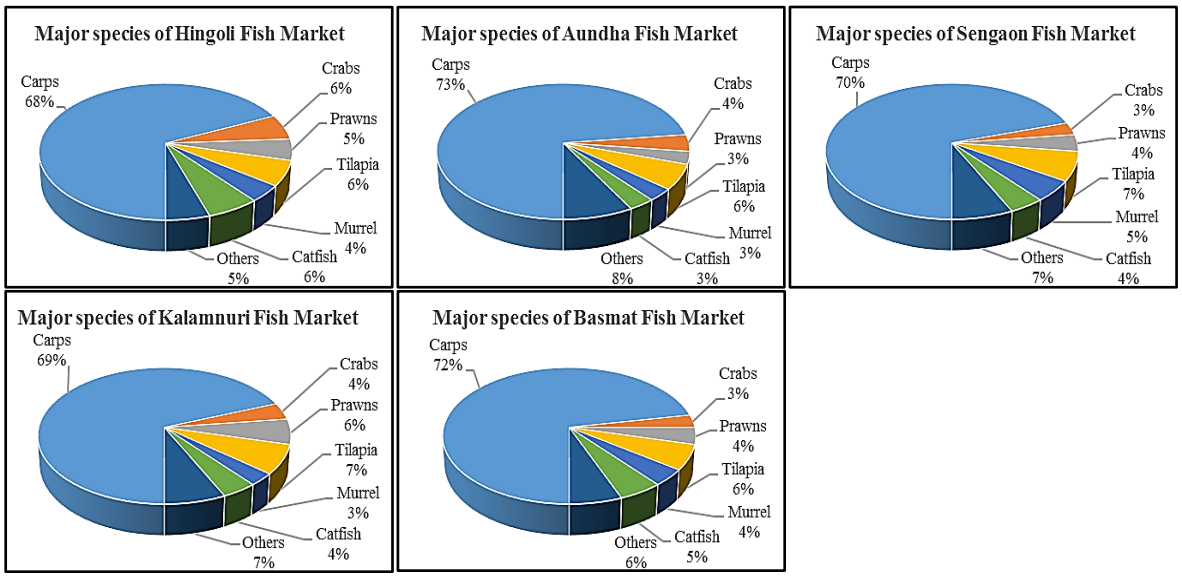
3. Cold chain:

Being highly perishable commodity, cold chain forms integral part of fish marketing. The cold chain facilities in fish markets of Hingoli district were very poor. None of the fish market under study had appropriate freezing and cold storage facilities. The cold chain of the fish markets in Hingoli district was mostly dependent on ice. Fisherman and fish seller brings fishes in crates with fishes mixed with ice. The ice preservation in these markets was done without any regard to maintenance of fish to ice ratio. The fishers use ice as per their instinct and experience for maintaining cold chain for fish storage, transport and marketing.

4. Species composition:

Fishers in all the fish markets mostly sold freshwater fishes available and caught in nearby reservoirs. The fishes were preserved in ice and brought to the market. Hingoli fish market receives fishes from nearby reservoirs such as Shiddheswar reservoir, etc. Major species sold are Catla, Rohu, Mrigal, Common carp, Silver carp, Grass carp, Murrel, Tilapia, crabs, freshwater prawn, etc. Some sun dried aquatic species sold in the fish markets of Hingoli district are of limited variety such as dries Bombay duck (*Bombil*), Acetus (*Jawla*), small freshwater weed fishes etc.

The finfish and shellfish species sold in the fish markets of Hingoli district were carps (Catla, Rohu, Mrigal, Common carp, Silver carp, Grass carp), Murrels (*Channa sp.*), Tilapia, catfishes, prawns (*Macrobrachium sp.*), crabs, air breathing fishes (Magur) and eels. Carps were major species in all the fish markets of the Hingoli district with market share ranging from 68 % to 73%. During the study of Deharadun fish market carps were found to be major species (60%) (Abdurrahman, et al. 2017).Carp species including Catla, Rohu, Common carp, Mrigal and other carps were sold in large quantities. Other finfish species like Murrels (*Channasp*), Catfishes and Tilapia having individual share in fish market less than 10%. Major shellfish species included freshwater prawns (*Machrobrachium sp*.) and crabs. No freshwater bivalve and gastropods were found to be sold in any of the fish markets in Hingoli district during present work.



5. Price structure of different species:

The Price of species vary considerable depending upon the availability, freshness, and condition of the specimen being sold. Alam *et al.* (2010) also reported influence of market structure, species quality, size and weight in price of fish. Sathiadhas and Narayanakumar (1994) also report effect of veroius factor on sell and price of fishes. Generally, larger specimen fetch more price compared to smaller ones.Deshmukh and Jawale (2014) also found that larger fishes fetched better price that smaller during study of Paithan fish market. The selling price structure of different species sold in fish markets of Hingoli district is mostly depend on freshness condition and size of fishes (Table 1).

Table 1. Price structure of various fish species in Hingoli fish markets

Sr. No.	Local Name	Scientific Name	Price (Rs/Kg)
01	Catla	*Catla catla*	120-200
02	Rahu	*Labeo rohita*	120-160
03	Mrigal	*Cirrhina mrigala*	120-150
04	Suparnas	*Cyprinus carpio*	140-200
05	Tilapi	*Tilapia mossambica*	90-120
06	Balu	*Wallago attu*	80-110
07	Pankaj/ Chopda	*Pangasius pangasius*	90-110
08	Maral	*Channa marulius*	250-350
09	Dhok	*Channa gachua*	180-350
10	Borali	*Cirrhina reba*	80-100
11	Shingada	*Mystus seenghala*	100-110
12	Tepali	*Puntius spp.*	60-80
13	Murhi	*Nemacheilus spp.*	180-250
14	Palai	*Salmophasia novacula*	60-80
15	Rasbora	*Rasbora daniconius*	80-100
16	Mishalu	*Mystus spp.*	80-100
17	Wam	*Macrognathus pancalus*	200-300
18	Japani wam	*Mastacembelus armatus*	150-200
19	Kanch	*Chandas pp*	60-80
20	Tambu	*Anguilla benghalensis*	400-500
21	Crab	Crab	700-800
22	Zinga	*M. rosenbergii*	400-500

6. Hygiene and sanitation:

The hygiene and sanitation conditions at the fish markets of Hingoli district under study were found to be poor. Fishes were sold along roadsides in open with plenty of mud and dust.Deshmukh and Jawale (2014) also report selling of fishes in open along roadside during study of Paithan fish market. The fishes were set and displayed on simple gunny sheets, polythene sheets, tree leaves or even on open ground. Cutting knives and platform were not found stored in proper condition and many times seen lying on open grounds full of dirt, mud and dust. The cut fishes were not properly washed before handing over to buyers.

7. Women involvement :

Many women are actively involved in many fisheries activities such as culture, capture, processing, wholesaling, retailing etc in mostly in maritime states. Although their degree and type of involvement is mostly variable and depends on local cultural conditions and caste (Shanthi et al, 2012**).**Involvement of women in fish markets and fish marketing system was meager in Hingoli district. Mostly male fisherman and

fish sellers were observed selling finfishes and sell fishes in all the fish markets of Hingoli district under study signifying their major part.

8. Marketing system and Traders involved:

The marketing system of fish markets in Hingoli district was found to be simple one. Most of the fisherman bring their fish catches and sell. Some retailers bring fishes from nearby reservoirs for selling. Mostly the fishes were caught in morning hours and were brought to the fish markets by afternoon. Most of the fisherman try to sell their whole catches on the same day due to unavailability of proper cold storage facilities. In other words, fisherman and seller would bring the amount of fishes in the marketing that can be sold within same day. The fish markets of Hingoli district mainly involved retailers. Fish venders were not seen in any of the markets during the study. Role of whole seller in Hingoli fish marketing system was found to be limited and it was confined to larger reservoirs. Most of the fisherman were found working in groups for fishing as well as selling.

CONCLUSION:

Condition of Hingoli fish market is very poor with very few modern facilities. It is need of time to have some assistance for development of fish markets of the district. Local governing bodies may take initiative to develop some of basic facilities in fish market. Fisherman should be made aware and trained in hygienic fish handling and processing. Also there is a great need to make people aware about fishes and their nutrition so as to enhance fish consumption.

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