

# Assessment Of Fish Marketing Systems and Socio-Economic Conditions of Vendors in The Pauni Region

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**Abstract**—A survey of the fish market in the Pauni region was conducted to assess the structure, species diversity, marketing practices, and socio-economic conditions of fish vendors and consumers. Primary data were collected through direct observation, structured interviews with fish sellers, and interactions with buyers in local markets. The study revealed that the Pauni fish market mainly deals in freshwater species such as *Catla catla*, *Labeo rohita*, *Cirrhinus mrigala*, *Wallago attu*, and *Clarias batrachus*, sourced from nearby rivers, reservoirs, and ponds. Marketing is largely traditional, with limited use of cold storage, ice preservation, and hygienic handling practices. Seasonal variation significantly affects fish availability and pricing, with higher demand observed during festivals and summer months. The socio-economic analysis indicated that most vendors depend solely on fish trade for their livelihood and face challenges such as price fluctuations, transportation issues, and lack of infrastructure. The study highlights the need for improved market facilities, better storage systems, and awareness of hygienic practices to enhance fish quality and income generation in the Pauni region.

**Index Terms**—Fish market survey; Freshwater fisheries; Marketing practices; Pauni region.

## I. INTRODUCTION

Fish constitutes an important source of animal protein and plays a crucial role in food security, nutrition, and livelihood generation, particularly in rural and semi-urban areas. India has witnessed significant growth in fisheries production over the past few decades, with freshwater fisheries contributing a substantial share to total fish production. However, efficient marketing systems are essential to ensure that fish reaches consumers in good quality while providing fair income to producers and vendors.

Fish marketing involves several processes such as harvesting, transportation, storage, distribution, and retailing. In many rural regions, including the Pauni

area of Bhandara district in Maharashtra, fish marketing is still largely traditional and unorganized. Lack of infrastructure such as proper fish landing centers, cold storage facilities, hygienic market conditions, and transportation systems can lead to post-harvest losses and reduced profitability for fish vendors.

The Pauni region is located near important freshwater resources including rivers, reservoirs, and fish ponds, making it a significant area for freshwater fish trade. The local fish markets serve as a primary source of livelihood for many vendors and also supply fresh fish to surrounding villages and towns. Despite the importance of fish marketing in this region, limited information is available regarding the structure of fish markets, the species traded, marketing practices, and the socio-economic conditions of vendors.

Therefore, the present study was undertaken to assess the fish marketing system in the Pauni region with special reference to fish species diversity, marketing practices, seasonal variation, and socio-economic status of fish vendors.

### 1.1 Objectives of the Study

The present study was conducted with the following objectives:

1. To assess the structure and functioning of fish markets in the Pauni region.
2. To identify the major freshwater fish species traded in the local markets.
3. To analyze the marketing practices and handling methods used by fish vendors.
4. To evaluate the socio-economic conditions of fish vendors.
5. To identify constraints and suggest measures for improving fish marketing systems.

## II. MATERIALS AND METHODS

### 2.1. Study Area

The study was conducted in Pauni town located in Bhandara district of Maharashtra, India. The region is well known for its proximity to freshwater bodies including rivers, irrigation tanks, reservoirs, and aquaculture ponds. These water bodies provide a variety of freshwater fish species which are supplied to local markets.

The Pauni fish market operates as a traditional open market where fish are sold daily, particularly during morning hours. Vendors procure fish from nearby fishermen, fish farmers, and wholesalers.



### 2.2. Data Collection

The study was carried out through field surveys conducted over a period of several weeks. Both primary and secondary data were collected.

#### Primary Data

Primary information was collected through:

- Direct observation of fish market operations
- Structured interviews with fish vendors
- Informal discussions with consumers and fishermen

A total of 25–30 fish vendors were interviewed using a questionnaire covering topics such as:

- Source of fish supply
- Species sold
- Pricing methods
- Storage and preservation practices
- Daily income and expenditure
- Socio-economic background

#### Secondary Data

Secondary information related to fisheries production and fish marketing was obtained from government

reports, research articles, and fisheries department publications.



## III. RESULTS AND DISCUSSION

### 3.1 Structure of Fish Market

The Pauni fish market functions primarily as a retail market, where vendors sell fish directly to consumers. The market consists of small stalls or temporary platforms where fish are displayed in trays, baskets, or plastic containers.

Most vendors are small-scale traders who purchase fish from fishermen or wholesalers early in the morning and sell them directly to consumers during the day.

The market lacks adequate facilities such as:

- Permanent stalls
- Proper drainage system
- Cold storage facilities
- Hygienic fish handling areas

These limitations affect both the quality of fish and the working conditions of vendors.

### 3.2 Fish Species Diversity

The survey revealed that the Pauni fish market primarily deals with freshwater fish species obtained from nearby water bodies. The commonly marketed species include:

- *Catla catla*
- *Labeo rohita*
- *Cirrhinus mrigala*
- *Wallago attu*
- *Clarias batrachus*

These species are highly preferred by consumers due to their taste and nutritional value.

In addition to these major species, small indigenous fishes and seasonal catches are occasionally available depending on fishing activities and water availability.

### 3.3 Sources of Fish Supply

Fish sold in the Pauni market are mainly obtained from:

- *Local fishermen operating in nearby rivers*
- *Reservoir fisheries*
- *Aquaculture ponds and fish farms*
- *Wholesale fish markets from nearby towns*

Local aquaculture ponds play an increasingly important role in supplying carps such as *Catla*, *Rohu*, and *Mrigal*.

### 3.4 Marketing and Handling Practices

Fish marketing in Pauni is largely traditional and unorganized. Vendors typically transport fish using bicycles, motorcycles, or small vehicles.

Fish are generally preserved using: Ice in plastic containers, Wet cloth covering or Frequent sprinkling of water

However, many vendors do not use adequate ice due to additional cost. As a result, fish freshness may decline rapidly during hot weather.

Fish are usually displayed openly on trays or baskets without proper hygienic arrangements, increasing the risk of contamination.

### 3.5 Seasonal Variation in Fish Availability

Seasonal factors significantly influence fish availability and price.

#### Summer Season:

Fish demand increases due to higher consumption and Prices are relatively high.

#### Monsoon Season:

Fish availability may decrease due to fishing restrictions and floods.

#### Festival Periods:

Demand for fish increases during certain festivals and social events, resulting in higher prices and increased market activity.

### 3.6 Socio-Economic Conditions of Vendors

The socio-economic survey revealed that fish vending is an important livelihood activity for many families. Most vendors belong to economically weaker sections. Fish vending is often a family-based occupation. Both men and women participate in fish marketing. Daily income varies depending on fish availability and market demand. The average daily income of vendors ranges between ₹400–₹1000, depending on the quantity and type of fish sold.

Many vendors reported challenges such as, Price fluctuations, Transportation difficulties, Lack of storage facilities and Market competition

### 3.7 Constraints in Fish Marketing

Several constraints affecting fish marketing in the Pauni region were identified:

1. Lack of proper fish market infrastructure
2. Absence of cold storage and ice plants
3. Poor sanitation and hygiene conditions
4. Transportation challenges
5. Price instability
6. Limited awareness about improved fish handling techniques

### 3.8 Recommendations

Based on the findings of the study, the following measures are recommended:

1. Establishment of modern fish market infrastructure with proper stalls and drainage.
2. Provision of cold storage and ice facilities to maintain fish freshness.
3. Training programs for vendors on hygienic fish handling practices.
4. Improvement in transportation facilities for fish distribution.
5. Government support through fisheries extension programs.
6. Promotion of organized fish marketing systems and cooperative societies.

## IV. CONCLUSION

The present study highlights that the fish market in the Pauni region plays an important role in providing livelihood opportunities and supplying fresh fish to local consumers. The market primarily deals with freshwater fish species obtained from nearby rivers, reservoirs, and aquaculture ponds. However, fish

marketing practices remain largely traditional with limited infrastructure and inadequate hygienic handling.

Improvement in market facilities, storage systems, and awareness among vendors can significantly enhance fish quality, reduce post-harvest losses, and increase income generation. Strengthening fisheries extension services and promoting better marketing practices will contribute to the sustainable development of fish trade in the Pauni region.

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