



COST STUDY OF FISHES AT DIFFERENT MARKET PLACES AT RAIPUR DISTRICT, C.G., INDIA

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Abstract : Comparative study of difference in cost of commonly traded fishes was done. Raipur district of Chhattisgarh state was chosen for the study due to its importance as being capital of state and a key financial hub of the region. Month of October, 2022 was chosen for study. There are three market places (study area) Mana Camp, Mandirhasod and Dumartraai bazaar at Raipur district of Chhattisgarh. Data collected A through survey and group discussion. After survey maximum cost of fish found in Mana Camp and minimum cost in Dumartraai at same fish species. The market channel at selected places is fish farmers, retailers and consumers. Some fish species cost comparison like – Labio rohita, Catla-catla and Oreochromis niloticus (Tilapia). Demand driven dynamics regarding cost spread such as wages and transport charges, sales channel etc.

Index Terms – Fish, Supply-chain, Cost Arbitrage, Raipur.

I. INTRODUCTION

India is a major marine and an important aquaculture country in the world. Now a days in India, with the emergence of large-scale intensive and semi-intensive commercial carp culture, Fishes are rich in protein, vitamins, polyunsaturated fatty acids and mineral salts and are also known as valuable protective food. An increasing amount of evidence suggest that due to the high content of polyunsaturated fatty acid, fish flesh and fish oil are beneficial in reducing the serum cholesterol (Stansby, 1985). India is home for over 10% of global fish biodiversity. Fisheries sector is a promising aspect for income and employment growth in India thus it can play an important role in socio-economic growth.” India is the second largest fish producer country in the world accounting for 7.56% of global production and contributing about 1.24% to country’s Gross Value Added (GVA) which amounts to over 7.28% in the agriculture sector (Source: Ministry of Fisheries, Animal Husbandry & Dairying, Yearly Ender review 2021).” Inland fisheries have 2983 hectares of pond area for fish culture. The riverine system, through the years of anthropogenic stresses of water abstraction and construction of dams, sedimentation, pollution have come under serious threat of loss in ecosystem and fish stocks, causing considerable economic loss to the country. Chhattisgarh state plays very important role in inland fish culture. Chhattisgarh is rich in biodiversity of flora and faunas. Marketing of different types of fish species found in Raipur district were observed during month of October, 2022 at different local markets. According to survey, Mana Camp is considered a developed fish market in Raipur district, maturing to the extent that many farmers are involved in end to end supply chain (from culture to sales). At Raipur local market data were collected from three different markets via survey opinion polls. The collected fishes were stocked and cultured with carps in ponds. Collection of seed from wild is unreliable, time consuming and financially taxing. To overcome this constraint, induced spawning is the only option for supply of quality seed for fish farming. The shorter marketing chain which included the fish farmers, retailers and consumers was found to be more beneficial to the fish producers. Some species of fish obtained in three selected markets, such as Indian major carps i.e. Rohu, catla, silver carp, grass mrigal, and common carp, tilapia, pangas etc. The price of fish is dependent on size, weight, season, availability and species. Fish is the major protein source in our country which contributes 63% of animal protein. Fish meat contains significantly low lipids and higher water than beef or chicken and is favored over other white or red meats (Neil, 1996; Nestel, 2000). The nutritional value of fish meat comprises the contents of moisture, dry matter, protein, lipids, vitamins and minerals plus the caloric value of the fish (Evangelos et al., 1989; Chandrashekhar and Deosthale, 1993; Steffens, 2006). The measurement of some proximate profiles such as protein contents, lipids and moisture contents are often necessary to ensure that they meet the requirements of food regulations and commercial specifications (Watermann, 2000).

II. MATERIAL AND METHODS

Freshwater fishes rohu, catla, mrigal, silver carp, grass and common carp, tilapia, pangas etc were collected from different market sites of Raipur district namely Mana camp bazaar, Mandirhasod bazaar and Dumartraai bazaar. Among these, Mana camp bazaar is considered as the most prominent fish market of Raipur district and it supplies a wide variety of fishes to most of the other local markets. Fishes are primarily supplied from the ponds and rivers, namely Kharun and Mahanadi as well as several reservoirs.

III. RESULTS AND DISCUSSION

The approximate cost of fishes to be had in various markets of Raipur district has been given in Table 1.1 to 1.4. A sizable amount of population is engaged in fish production, distribution and marketing structures within the three different markets yet certainly similar kind of fish market places. The most important purpose of this observations is to explain the prevailing reputation of fish advertising/marketing devices (strategy) in Raipur district. This description is primarily based on secondary information and primary facts amassed in three particular markets of Raipur district. Marketing channel in selected areas are fish cultured by Farmers to Retailers to Consumer. "Farmers carried the fishes to the markets and sold them to the retailers. During studies, causes to different cost of fishes at selected markets at Raipur district were identified as local demand (taste preference), wages and transport charges, capturing method (fishing method) and retail vs direct sales. According to Table 1.4 minimum cost of fish (all species) observed in Dumartrai area and Mana Camp observed maximum cost of same fish species. This cost differential is primarily attributed to bullish or bearish market for the underlying species. Different fish species also found in selected marketplaces like- Pabda, Pangasius and Mirgal also found. This diverse variety of fishes in given markets reflects on demand driven market by nutritional value as the underlying factor.

Table 1.1: The approximate cost of fishes in market of Mandirhasod Raipur district m/o October, 2022

S.q.	Name of Fish	Local name	Cost/kg
1	<i>Labio rohita</i>	Roha	170-180
2	<i>Oreochromis niloticus</i>	Tilapia	130-150
3	<i>Labio catla</i>	Catla	180-200
4	<i>Ompok pabda</i>	Pabda	210
5	<i>Pangasius pangasius</i>	Pangas	170

Table 1.2: The approximate cost of fishes in market of Mana Camp Raipur district m/o October, 2022

S.q.	Name of Fish	Local name	Cost/kg
1	<i>Labio rohita</i>	Roha	180-230
2	<i>Oreochromis niloticus</i>	Tilapia	150-210
3	<i>Catla catla</i>	Catla	200-220
4	<i>Ompok pabda</i>	Pabda	170
5	<i>Pangasius pangasius</i>	Pangas	140

Table 1.3: The approximate cost of fishes in market of Dumartrai Raipur district m/o October, 2022

S.q.	Name of Fish	Local name	Cost/kg
1	<i>Labio rohita</i>	Roha	160-180
2	<i>Oreochromis niloticus</i>	Tilapia	130-150
3	<i>Catla catla</i>	Catla	170-180
4	<i>Cirrhinus mirgala</i>	Mirgal	120-140

Table 1.4: Different type of Fishes and their average cost in selected markets at Raipur district in m/o October, 2022

S.q.	Name of Fish	Mandirhasod Cost/Kg	Mana Camp Cost/Kg	Dumartarai Cost/Kg
1	<i>Labio rohita</i>	175	205	170
2	<i>Oreochromis niloticus</i>	140	180	140
3	<i>Catla catla</i>	190	210	175

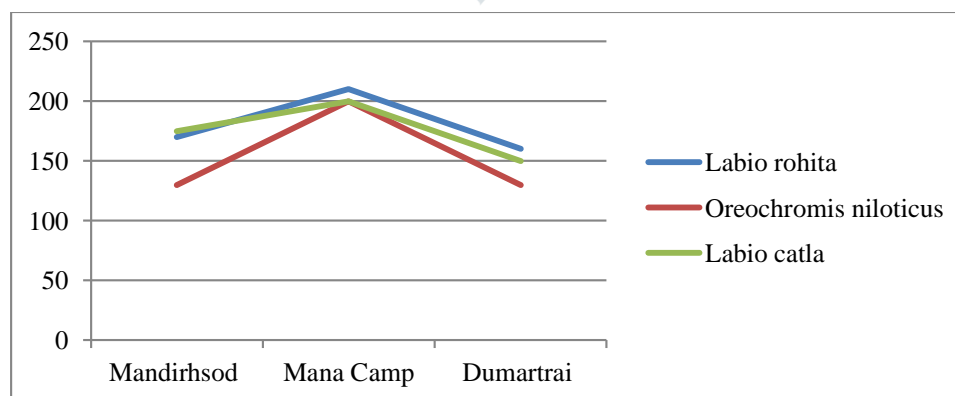


Figure 1: Comparative Fish cost at Mandirhasod, Mana Camp and Dumartrai market at Raipur district in year-2022

IV. CONCLUSION

Fish market in Raipur seems to be highly unorganized and lightly regulated. Considering the impact sustainable fishing could have on healthy diet and thus proper nutrition, there is a need to improve the market to attain organized operating status. To begin with, there seems to be an appreciable difference in the cost of commonly traded fish types at different market places at Raipur

district. There are many factors contributing to this difference in price such as local demand, wages and transport charges, sales channel etc. This calls for a feasibility analysis for an opportunity to arbitrage and thus generate a sizeable operating profit from existing model.

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