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A STUDY OF TRADITIONAL FISH MARKETING AND ITS EFFECTS ON NUTRITIONAL VALUE OF FISH IN NANDED CITY, MAHARASHTRA

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ABSTRACT :

Now in earlier days the term marketing of fish meant buying and selling of fish at landing center. The Godavari River Area, Nanded Region, Maharashtra being a predominant centre for fish marketing. The efficiency of the marketing channel of fishes in providing cheap fish transported over large distances andthrough a large number of intermediaries. It is necessary to take care while handling and transportation of fishes. The waste from fish markets directly mixes with the river water. This polluted water is hazardous for consumption. With the use of modern technologies it is necessary to reduce the pollution of water by using up gradation of standards of domestic traditional fish markets.The present paper describes efficient fish marketing system at Godavari River near Nanded Region andits effects on nutritive value.

KEY WORDS: Fish Market, Transportation, Hygienic Condition.

INTRODUCTION

India is the third largest producer of fish and second largest producer of freshwater fish in the world (FAO, 2001). It has witnessed about 2.5 times increase in per capita consumption of fish. This shows that, the fisheries sector is wide in distribution which has the issues of demand factors than of supply factors to sustain its growth in future. To increase the fish production the Government favors policies to about 10 Mt by the end of XI Five-Year Plan throughtargeted fish production environments. These policies focus on the increase in contribution from inland fisheries sub-sector,especially culture fisheries. It is very necessary for the development of efficient domestic marketing system. In the domestic marketing system the producers are concentrated in aparticular location while the consumers are spreadcountry-wide. The studies of Praduman Kumar*et al.*, 2005; Ganesh Kumar *et al.*, 2008a, Swarnlatha 1998 have studies that market would be one of the crucial drivingforces to sustain the fish production in future, alongwith technology and infrastructure. According to Ganesh Kumar *et al.*, 2008b, when we compare the fish production with the other countries with India, the fish marketing system is very poor and highlyinefficient. (Sathiadas et.al., 1994; Srivastava et.al., 1985; Pulle 2000; Shashtri 2000; Shashtri et.al., 2001).

The transportation of fishes occurs in huge quantity with varieties of species, size, weight and tasteby maintaining the quality and prices. This bulkiness of material, high cost of storage and transportation reduces quality of fishes (Ravindranath, 2008).
The marketing of fishes in India has received little attention from public agencies especially by the private sector. The marketing is the only business activity involved in the transfer of the product to a consumer. The freshwater fishes from Inland water bodies like rivers, lakes, reservoirs, dams etc. are transported to the market.While handling and transportation of fishes the spoilage of fishes occurs after its death. It is important to preserve fish properly for longer duration (Lindfield, 2016; Kleih, et.al., 2003; Campbell, 2000; Chambers, 1994).

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PRESENT STATUS

The domestic fish marketing system in India is neither efficient nor modern. It is mainly carried out by private traders with intermediaries between producer and consumer. The domestic fish marketing retailer's areas are on the road side, foot paths which are mostly near the drainage lines. The hygienic conditions are not maintained because most of the weighing instruments are old, cutting of fishes, removal of scales, balances is on open spaces. This waste material directly thrown on roads mixes in to the drainages and into the river (Dhere et.al., 2013). Physical facilities and infrastructure in fish marketing systems are not satisfactory (FAO,2001).The present study has highlighted the need for formulating a uniform market policy forfishes for easy operation and regulation. This is helpful for maintain the different handling techniques (Bishnoi et.al., 2005; Zafar, 1991; CMFRI Newsletter, 1994).

The use of modern technologies helpful for the maintenance of standards in domestic fish markets. According to Rao (1983) an efficientfish marketing system helpful to eliminate problems of malnutrition by maintaining hygienic conditions while transportation.

DISCUSSION AND CONCLUSION

Fish are regarded as a nutritionally valuable part of the human diet. It contains long chain polyunsaturated n-3 fatty acids which are essential in human nutrition. They are involved in many metabolic functions. Among others, they have anti-inflammatory effects, decrease platelet aggregation and are essential parts in the cell membranes, cardiovascular system, brain, and nervous tissue. The fishes are serving as a food for majority of peoples. Hence Fisheries play an important role in economy of the world. Fishes are rich in omega -3 fatty acids, vitamins, proteins, fat and inorganic substances. The protein in fishes is easily digestible (Sarvenaz et. al., 2017).

The composition of fish flesh influences numbers of factors. The way of production and processing affects quality of product. According to Lie, 2001 under intensive culture conditions feed composition and feeding regimen have amajor influence. Morris, 2001; Shearer, 2001 shown that the lipid contentand the FA composition are easily affected by feedcomposition. The feeding regimen andrearing system get also effected.

Generally in the transportation of fishes takes place in containers such as cans of different sizes, metal or ceramic pots, buckets, barrels, plastic bags, bottles, jugs, animal skins and bamboo sections. In fact, almost any clean, waterproof container may be used. Out of these methods good insulation of (like wood or Styrofoam) takes place. The metal or plastic containers are poor insulators and may have to be wrapped with wet towels or packed with ice to keep temperatures down.

Care Taken for Fish Transport Systems

It is necessary to transport live harvested fish to the market for sale. Many methods for fish transport have been developed. During transportation careful handling of fish is necessary. A poor planning results the death of fish. The following factors directly influence fish transport-

- Tolerance of fish is important depends on their ability to resist or adapt to stressful conditions.
- Fish survive transport better if they have no food in their intestines.
- A lower weight of small fish can be transported per unit volume of water than large fish.
- During transportation of fishes in sealed plastic bags oxygen containing clean water at approximately 18°C is necessary.

The important nutrients from fish are the FA. This is influenced by the feed and the processing of the fish. During this fish proteins get also affected as long as the fish was not starved or wrongly fed or exposed to abusive storage or processing conditions.Regarding human nutrition and related health aspects, it is impossible to focus one group of nutrients separated from all others. The major issues of effects of fish on human health are due to the consumption of the fishes.

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REFERENCES

1. **Bishnoi, Tanuj Kumar (2005):** Marketing of Marine Fisheries, Sonali Publication, New Delhi, pp. 74-76.
2. **Campbell, J. (2000):** Literature Review: The Utilization of Marine Fish and the Sustainable Livelihoods of the Poor in India. Project Memorandum, Sustainable Coastal Livelihoods Project India. (unpublished)
3. **Chambers, R. (1994):** The origins and practice of Participatory Rural Appraisal. *World Development,* 22 (7): 953–969.
4. **Dhere R. M., M. I. Fazil, M.S. Kadam& S. D. Dhimdhime (2013):** Traditional Fish Markets and its Impact on Environment, Proceedings of NCABMCSD (Zoology), October 2013 (ISBN-978-1-62951-081-1).
5. **FAO (2001):** Production, Accessibility, Marketing and Consumption Patterns of Freshwater Aquaculture Products in Asia: A Cross-Country Comparison (available online).
6. **Ganesh Kumar B., K.K. Dattaa, P.K. Joshia, P.K. Katihab, R. Sureshc, T. Ravisankard, K. Ravindranathe and MukthaMenona (2008):** Domestic Fish Marketing in India – Changing Structure, Conduct, Performance and Policies, Agricultural Economics Research Review, Vol. 21 (Conference Number) 2008 pp 345-354
7. **Kleih, U., Greenhalgh, P. and Oudwater, N. (2003):** A Guide to the Analysis of Fish Marketing Systems Using a Combination of Sub-sector Analysis and the Sustainable Livelihoods Approach. Chatham, UK: Natural Resources Institute (ISBN: 0 85954 522-0).
8. **Lie, O. (2001):** Flesh quality – the role of nutrition. Aquaculture Research, Vol. 32: pp. 341–348.
9. **Lindfield, S. J., (2016):** Summary of the 2015 fishery creel and market survey in Palau. Technical report, Coral Reef Research Foundation, 20pp.
10. **Marine fish Marketing in India,** CMFRI Newsletter, July – December 1994.
11. **Morris, P. C. (2001):** The effects of nutrition on the composition of farmed fish, pp. 161–179. In: Farmed Fish Quality (Kestin, S. C., and P. D. Warriss., Eds.). Oxford: Fish News Books.
12. **Praduman Kumar, Madan M. Dey and Ferdinand J. Paraguas (2005):** Demand for Fish by Species in India: Threestage Budgeting Framework, *Agricultural Economics Research Review* Vol. 18 July-December 2005 pp 167-186.
13. **Pulle J. S. (2000):** Biomonitoring of Islampur Dam Water, Ph.D. Thesis Submitted to S.R.T.M.University, Nanded
14. **Rao, P. S. (1983):** Fishery Economics and Management in India. Pioneer Publishers and Distributors, Mumbai, pp. 197-217.
15. **Ravindranath, K. (2008):** In National Workshop on Development of Strategies for Domestic Marketing of Fish and Fishery Products, College of Fisheries Science, Nellore, India, pp. 43-48.
16. **SarvenazKhaliliTilami& Sabine Sampels (2017):** Nutritional Value of Fish: Lipids, Proteins, Vitamins, and Minerals, Reviews in Fisheries Science & Aquaculture, DOI: 10.1080/23308249.2017.1399104.
17. **Sathiadas, R. and Narayana Kumar, R. (1994)**: Price policy and fish marketing system in India. Biology Education, 11 (4): 225-241.
18. **ShashtriYogesh (2000):**Physico chemical Characteristics of River Monsam Malegaon (M.S.), Geobios, 27: 194-196
19. **ShashtriYogesh and D.C. Pendse (2001):**Hydrobiological Study of Dahikhuta Reservoir, Journal of Environmental Biology, Vol. 22(1): 67-70
20. **Shearer, K. D. (2001):** The effect of diet composition and feeding regime on the proximate composition of farmed fishes, pp. 31–40. In: Farmed Fish Quality (Kestin, S. C., and P. D. Warriss. Eds.). 1st ed. Oxford: Fishing News Books.
21. **Srivastava, Uma Kant (1985)**: Inland Fish Marketing in India (Volume I – Overview: Summary and Conclusions), IIM Ahmedabad & Concept Publishing Company, New Delhi.
22. **Swarnlatha N. & A. Rasing Rao (1998):** Ecological studies of Banjara Lake with reference to Water Pollution, Journal of Environmental Biology, Vol. 19 (2): 179-186.

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23. **Zafar Javeed S. (1991):** Comparative Study of Ecological Pollution of Reservoirs and Lakes in the vicinity and Aurangabad and Godavari River at Paithan, Maharashtra State, Ph.D. Thesis, Marathwada University, Aurangabad.

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