



THE CORRELATION AMONG THE DISTRIBUTION CHANNELS OF DRY FISH MARKET

Abdul Aziz

*Fishery Development Officer
O/o DFDO Karimganj, Department of Fisheries
Govt. of Assam, Assam (India)*

Pradip Chandra Bhuyan

*Head, Professor
Department of Fishery Economics & Statistics
College of Fisheries, AAU, Raha
Assam (India)*

Nazrin Sultana Ahmed

*Assistant Professor
Department of Fish Processing Technology
College of Fisheries, AAU, Raha
Assam (India)*

Abstract

Drying is one of the oldest known methods of preservation of food. The technology of food preservation and processing has undergone revolutionary changes over the year and several new products processed employing diverse techniques have made their firm presence in the market, drying still continues to be the most widely used method for preservation of several foods including fish. Demand of dry products is in both, inside and outside the country and form good source of protein. Fish drying over the years, has grown from a subsistence kind of occupation to a full-fledged flourishing business. Use of dry fish in different way that include fish/prawns for human consumption, low value fishes for the preparation of fish feed as well as poultry feed (Balachandran, 2013). Present study was carried out to enlighten the correlation between marketing channels of dry fish market at Jagiroad dry fish market, Assam during 2021-22, as the market is the largest in Asia. Study was carried out by collecting primary data from the wholesalers, retailers as well as the producers and marketing efficiency analysis was done by different statistical tools. The study concluded that the dry fish industry has a potentiality to get good profits and employment generation. The significant intervention suggested in the area that many unnecessary intermediaries are involved in the marketing channel, thus the price of the final goods increases for final consumer so government should take some measures and put some limitations in the market. For the benefit of this industry some new

sort of organization for marketing may be introduced to standardize the price fluctuation and minimize the role of middleman in this sector.

Key words: Dryfish, Marketing Channel, Profit, Wholesalers, Price

Introduction

The fisheries and aquaculture sector is a vital source of livelihoods, nutritious food and economic opportunities. Fish and fishery products are among the most important agricultural commodities providing significant contribution to the world's food security and economic development. Drying is one of the oldest known methods of preservation of food. Through the technology of food preservation and processing has undergone revolutionary changes over the years and several new products processed employing diverse techniques have made their firm presence in the market, drying stills continues to be the most widely used method for preservation of several foods including fish. Demand of dry products is in both, inside and outside the country and form good source of protein. Fish drying over the years, has grown from a subsistence kind of occupation to a full-fledged flourishing business. Use of dry fish in different way that include fish/prawns for human consumption, low value fishes for the preparation of fish feed as well as poultry feed (Balachandran, 2013)

In India, consumption of dried fishes is about 32% of the total marine landings and about 17% of the total catch used for the production of dry fishes. In drying salt is used to destroy the non-halophilic, spore forming bacteria and osmophilic fungi (Sivaraman et al., 2015). Dry fish is an important source of animal protein supplement, which is preferred as a key dish or used as a flavoring agent in combination with other food items (Soumyadip et al., 2019). Drying is one of the most commonly practiced methods of fish preservation in Assam and is a traditional and primitive preservation method. It is also one of the world's oldest known preservation methods (Payral et al., 2016 & Balachandran et al., 2013). Dried fish market is invariably associated with the fresh fish market. Freshwater as well as marine fishes were found in the Jagiroad market. Dried fish market situated at Jagiroad of Nagaon District are the largest dried fish markets in Asia which function as supply centres of dried fish to the entire Northeastern India. It receives the dry fish products from the entire parts of the country. This market acts as the major income generating source for different stakeholders from the neighboring communities. A large numbers of people are involved in the market at different levels, such as drying of fish,

assembling, grading, packaging, storing, transportation of dried fish etc. Considering all above, it is aimed to study the different marketing channels involved in Assam as well as the constraints faced by them. Since sufficient basic data is not available on the above aspects, the present study will bridge this gap and the constraints for economic development of different stakeholders involved in this marketing system can be minimized with further improvement. The findings will support researchers, planners/policy makers etc. to communicate the profitability and livelihood generated by the dry fish marketing system. It will provide information regarding how value enhancement is going on in fishery products in terms of money. The study will provide a road map for analyzing the present status and prospects of dry fish production and marketing in Assam.

Materials and Methods

The research entitled “**The Correlation Among The Distribution Channels Of Dry Fish Market**” was conducted at Jagiroad- Asia’s largest Dry Fish Market in Morigaon district, Assam. Jagiroad dry fish market is situated in the second smallest district of Assam, Morigaon, which is 78 km away in the North-East direction from the State’s capital Dispur. The study was conducted during the period July, 2021-March, 2022 to evaluate the study appraisal of dry fish marketing in Assam. Both primary and secondary data were collected for this purpose.

Table 1: Sampling Frame for the mentioned research

<i>Stage</i>	<i>Selected Zone</i>	<i>Sampling Procedure</i>	<i>Data Collection</i>
Stage 1: Main Market	Jagiroad Dry Fish Bazar	Purpose Sampling	Primary and Secondary both. Questionnaire and Interview Data
Stage 2: Retail Markets	Barbazar. Nagaon	Random sampling	Questionnaire and Interview Data
Stage 3: Retail Markets	Mayaa Bazar, Marigaon	Random sampling	Questionnaire and Interview Data
Stage 4: Retail Markets	Natun Bazar, Hojai	Random sampling	Questionnaire and Interview
Stage 5: Retail Markets	Mahabhairab Mazar, Tezpur	Random sampling	Questionnaire and Interview
Stage 6: Retail Markets	Lalu Fish Market, Lakhimpur	Random sampling	Questionnaire and Interview

The Table 1 has shown the sampling frame for the mentioned research programme.

Data collected from the respondents during the study period were edited, scored, systematically tabulated and analysed using the following statistical tools and techniques :

Marketing efficiency

Marketing efficiency was calculated using both Shepherd Index (1972) and Acharya's modified marketing efficiency (Acharya and Agarwal, 1999) which is as follows.

Conventional method: Index of marketing efficiency(E) = O / I

Where, O = value added by the marketing system, I = cost of market intermediaries

Shepherd's Index (1972): Marketing Efficiency (ME) = V / I

Where, V = value of goods sold or price paid by the consumers I = total cost + margin of market intermediaries.

Result and Discussion

In the study area six major marketing channels were observed for marketing of dry fish (Table 2). Out of all the six channels, Channel I (Dry fish Producer – Assembler – Commission Agent – Wholesaler – Retailer - Consumer) was found to be the most dominant channel

Table 2: Marketing channel with different intermediaries involved in market

<i>Particulars</i>	<i>Marketing Channels</i>	<i>Quantity handled (in percent)</i>
Channel I	Dry fish producer – Assembler – Commission agent (CA) – Wholesaler – Retailer – Consumer	53.07
Channel II	Dry fish producer –Commission agent – Wholesaler – Retailer – Consumer	22.23
Channel III	Dry fish producer –Wholesaler cum Commission agent – Retailer – Consumer	7.15
Channel IV	Dry fish producer – Wholesaler – Retailer – Consumer	10.30
Channel V	Dry fish producer – Wholesaler – Local Distributor – Consumer	5.15
Channel VI	Dry fish producer (local producer) – Local Distributor – Consumer	2.10

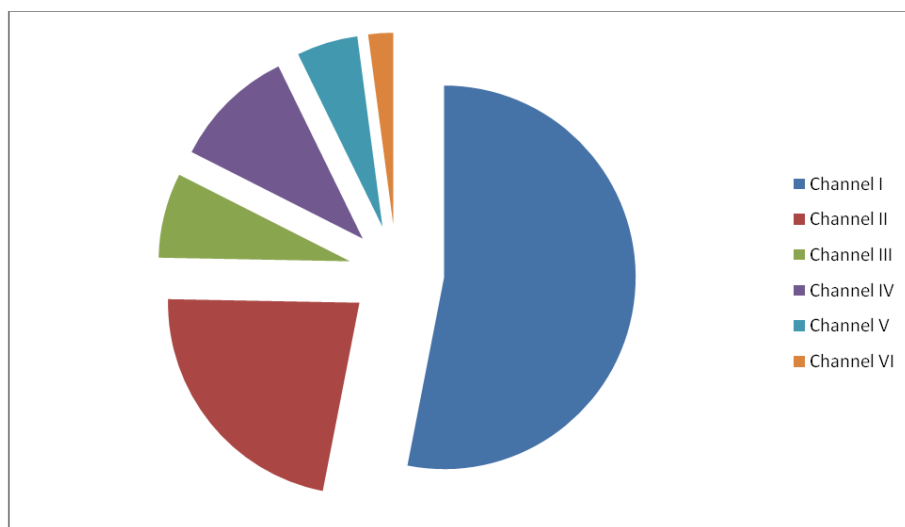


Fig.: Pie-chart of marketing channel inflow

through which 53.07 percent of the total dry fish moved. 22.33 percent fish dryers sold dry fish through Channel II (Dry fish Producer – Commission Agent – Wholesaler – Retailer - Consumer) and 10.30 percent used channel IV (Dry fish producer – Wholesaler – Retailer - Consumer) for selling their product in the market. And in channel V and VI, we have seen that local distributor takes the part which comprises 5.15 and 2.10 respectively.

Marketing Efficiency of Dry Fish

The marketing efficiency of dry fish sold by the dry fish producers was calculated using different methods. Shepherd's Method Index (ME), of marketing efficiency was 1.73, 1.77, 1.81, 1.94, 2.72 and 2.90 in Channel I, II, II, IV, V and VI respectively (table: 3). And incase of Acharya's modified measure of marketing efficiency was 0.82, 0.86, 0.90, 1.03, 1.39 and 1.48 in Channel I, II, II, IV, V and VI respectively (table: 3). So here in both the indexes shown us that marketing efficiency was the highest in channel V as the price received by the dry fish producers was higher and both marketing costs and marketing margin were lower than the other four marketing channels. Channel I was found as the most inefficient among all the channels where marketing costs and marketing margin were highest (Rs.41.30 and Rs.68 respectively). Despite higher marketing efficiency in channel V, its market share in total quantum of dry fish sold was the smallest as it is not possible

Table 3: Marketing channel price index

Sl.No.	Particulars (Unit- Per Kg)	Share from Final Price (in Rs.)					
		Channel I	Channel II	Channel III	Channel IV	Channel V	Channel VI
1	Retailer's sale price (RP)	189.30	183.25	176.85	172.00	165.10	154.90
2	Total Marketing Cost (MC)	41.30	37.35	36.95	26.20	32.10	31.64
3	Total margins of intermediaries (MM)	68	65.90	60.70	37	53	34
4	Net Price received by producer (NPP)	90.50	89.75	88.50	88.10	88.10	86.00
5	Value added by marketing system, VA= (RP- NPP)	98.80	93.5	88.35	83.9	77	75.89
Marketing Efficiency Indexes							
	Shepherd's Method Index, ME= {RP / (MC+MM)}	1.73	1.77	1.81	1.94	2.72	2.90
	Acharya's Method Index, MME = {NPP / (MC+MM)}	0.82	0.86	0.90	1.03	1.39	1.48

for the consumers of Assam to buy dry fish products directly from the distributors every day. Although, Kashyap *et al.* (2013) reported the same result between 5 major marketing channels of marketing efficiency during their research at Jagiroad dry fish market in 2009. Comparison of price spread of different channels indicated that price spread was lowest in channel VI and hence efficiency of this channel was more than the other channels.

Conclusion

Dried fish marketing play an important economic role in Jagiroad market by contributing to increase food production and employment opportunities. In many areas, dry fish marketing is only employment opportunity for local fisherman. The dry fish marketing channel starts with a farmer (dry fish producer) and ends with the ultimate consumer involving a number of intermediaries in between. The involvement of these marketing intermediaries provides services for producing,

assembling, loading, packaging and transporting of dry fishes and these activities result in cost addition at every stage of marketing. It was observed that the farmers did not sell fish directly to the consumers. The major existing marketing channels were identified and are presented above (table I). By the analysis of Shepherd's Method Index and Acharya's Method Index, we came to conclusion that, the price of a final good increases as the intermediaries increases in the marketing channel. Although the marketing cost and extra margin increases in the value chain as the product passes through the different stages. Therefore it is necessary to minimize the final price of a commodity by compressing the marketing channel.

REFERENCES

- Balachandran K.K. (2013): *Post-harvest technology of fish and fish product*. Daya publishing house, 77-104.
- Dipanjana Kashyap, Rajita Devi, B. Phukan, S. Baishya, M.P. Dutta, S. Bhuyan, T.D. Sarmah, I. Hussain (2013): "Marketing efficiency across the marketing channels in dry fish business in North East India." *Environment & Ecology* 31(4), 1732-1735. 2013. Nov.
- Payra P., Maity R., Maity S. and Mandal B. (2016): Production and marketing of dry fish through the traditional practices in West Bengal coast: Problems and prospect. *International Journal of Fisheries and Aquatic Studies*, 4(6), 118-123.
- Sivaraman G.K., Visnuvinayagam S. and Jha A.K. (2015): *Microbiological spoilage of dried fishes*. Indian council of agricultural research.
- Soumyadip Purkait, Somen Sahu¹, Bostanul Arefin, Subir Kumar Pradhan, Anisha Sharma, Satyanarayan Boda, Sutanu Karmakar and Saymantaka Sahu (2018): "Economic Analysis of Fish Drying in Junputkhuti of West Bengal" *International Journal of Current Microbiology and Applied Sciences* ISSN: 2319-7706. Volume 7 Number 10(2018)

* * *

Received on 16.10.2023 and accepted on 4.11.2023