## Assessing domestic fish supply chain - A tool for sustainable fisheries development

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The fish supply chain in domestic marketing is unorganized with complex intra and inter-linkages between market functionaries at different stages of the supply chain. The concept of value chain was conceptualized by Porter and defined as 'A full range of activities that are required to bring a product or service from conception, through different phases of production. delivery to final consumers and final disposal after use'. Improvement in supply chain depends on the combined satisfaction of producers, wholesalers, retailers and consumers. Supply chain comprises of production, distribution and marketing stages which varies across regions. It was stated that sustainability gaps can be improved through integrating various stages of supply chain.

In this pilot study, marketing stage in the supply chain was targeted and the efficiency of major market functionaries (wholesalers and retailers) involved was studied for selected markets. Data were collected from 15 wholesalers and 15 retailers of three fish markets in Ernakulam district. The marketing costs, marketing margin and intra- and inter-market efficiency were studied. Intra and inter-market efficiency is studied to compare the effectiveness between markets and also among the market functionaries in the markets, by using certain criteria *viz.*, information availability, marketing costs and margins. This is useful in assessing the effectiveness of marketing functions, cost of marketing and method of performing the service in a better way.

The fish supply chain for three fish markets revealed that the fish arrivals to these markets were from outside Kerala (Tamil Nadu, Andhra Pradesh, Odisha and Gujarat) besides local harbours and landing centres. The marketing efficiency of intra and inter-fish markets was assessed using Shepherd's Marketing Efficiency Index (MEI). The inter-market efficiency ranged from 3.11 to 3.46 and the intra-market efficiency

Markets	Purchase price (₹ in lakhs)	Sale price (₹ in lakhs)	Marketing Margin	Marketing cost	Marketing efficiency
Market I (3.46)					
Wholesaler	25.00	36.67	11.67	0.40	0.78
Retailer	48.00	60.00	20.00	0.32	4.87
Market II (3.42)					
Wholesaler	12.50	16.80	25.60	0.27	3.68
Retailer	0.83	1.04	27.95	0.12	3.15
Market III (3.11)					
Wholesaler	8.10	10.28	21.21	0.38	4.02
Retailer	0.65	0.92	29.35	0.15	2.19

Table 1. Marketing costs, margin and efficiency in the selected fish markets

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ranged from 2.04 to 4.87 (Table 1). It was observed that retailers performed better (4.87) in Market I and wholesalers performed better (4.02) in Market III than other selected markets. Among the markets studied, the wholesalers in Market I faced

lot of difficulties in performing the fish marketing with very low efficiency index (2.04). This is mainly due to influence of agents who usually determine the fish price at the market.