Marine Fish Marketing in India

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Foreword

Marketing plays a key role to promote production of any commodity. The production of perishable food products like vegetables, fruits, milk, egg, meat and fish almost entirely depends on an efficient marketing system. The value chain mechanism for these commodities witnessed tremendous growth in the past few decades with developments in cold chains, processed, value added and branded products ensuring quality products to domestic and overseas consumers and better remuneration to the producers.

India ranks third in the world in total fish production and second in inland aquaculture. The sector presently contributes around one per cent to the GDP and 4.72 per cent to Agriculture GDP of our country. The rapid economic growth and steady increase in fish eating population resulted in an upsurge in demand for fresh and processed fish products within the country. Even though the technological advancements in the farming, harvesting and post-harvest sectors significantly enhanced the fish production in our country, the domestic and export demand are seldom met, causing escalation in fish prices. The overall fish production in the country at present is 7.85 million tonnes, of which 3.32 million tonnes (42.30%) is contributed by the marine sector.

The contribution of marine fisheries to the economy is significant through its huge employment generation in primary, secondary and tertiary sectors, foreign exchange earnings and meeting the food security needs. Improved storage and preservation techniques coupled with developments in transport and processing infrastructure brought out dramatic changes in the fish trade scenario in the country. Efficient supply chain strategies are essential for protecting the interests of fishermen, traders and consumers in the context of diminishing catch rates and increasing prices.
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The supply-demand scenario dealt by the authors at the current level of production and consumption indicate a deficit of about 4 million tonnes of fish by 2020. In this context, there is urgent need to initiate action to enhance our fish production. Fishermen’s share in consumers’ rupee ranges from 47.5 to 82.7 percent for various varieties of fish. No doubt that the domestic fish marketing system needs changes and improvement for increasing the overall marketing efficiency and specifically some of the low value fishes. The economic valuation of different varieties of fish at state and national level over the years at points of first and last sales is a pioneering attempt which enriches our knowledge in estimating the national income.

Macro level analysis of the domestic and export trade sectors give guidelines for improving the efficiency of the fish marketing system and the book on Marine fish marketing in India provides valuable information for developing policy frameworks. I am quite sure that this book will be useful to exporters, marketers and planners to finalize their marketing strategies and I appreciate the efforts taken by the authors to bring out this publication.

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New Delhi-110114
Secretary & Director General,
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and
Indian Council of Agricultural Research
Government of India
Preface

Marine fisheries contribute significantly to the Indian economy by way of foreign exchange earnings and employment generation to a large section of the population in the coastal areas of the country. In addition, it plays a major role in ensuring the food security of the nation through supply of cheap and affordable fish protein to a large majority of the population. The modernization of harvesting techniques coupled with the developments in transportation, storage, processing and value addition has resulted in the gradual transformation of this sector from subsistence fishery to the status of a multibillion industry. The performance and the sustenance of the marine fisheries sector in the country is highly in need of a responsible harvesting system supported by a more efficient and responsible fish marketing system.

Fish production highly depends on the growth and development of demand driven markets both in the domestic and export fronts. Our marine product export marketing system has achieved tremendous development over the years and to a greater extent on par with many developed nations in maintaining quality standards at international level. Further, the export trade gained momentum through recent trade liberalisation measures which opened up opportunities for new markets and products meeting the quality standards in the international market. Establishment of several modern processing plants and development of infrastructural facilities along the coast are mostly oriented towards catering the needs of our lucrative foreign markets. However, it is distressing that the domestic marketing system in the country is still highly disorganised and complex with the dominance of a multitude of intermediaries and lack of hygienic handling, preservation, grading and quality control measures. Even though there is a steady and continuous increase in the fish prices owing to the growing consumer demand, its benefits are often not transferred to the fishing community. Further, still there is no
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guarantee that consumers will get unspoiled fish that satisfies minimum quality standards.

The Central Marine Fisheries Research Institute (CMFRI) is the premier institute in the country which has been actively involved in conducting research on various aspects of marine fisheries from resource assessment, conservation and management to development of macro and micro level policies for the sector in the past several decades. The Socio-Economic Evaluation and Technology Transfer Division (SEETTD) of CMFRI conducts regular analysis of marine fish marketing system in the country by collecting weekly price data from the important landing centres, wholesale and retail markets spread over different coastal states, in addition to the analysis of export trade scenario over the years. The state wise valuation of marine fish landings at landing centre and retail levels are also done regularly for assessing the immense potential of the sector and for developing macro level policies.

The book on Marine fish marketing in India is based on the comprehensive analysis conducted on the marine fish marketing system in the country covering all the coastal states and marine fishery resources during the period 2000-2010. Very few studies in the past had focused on the marine fish marketing in the country at all India level. In this context this book is considered as a pioneering attempt which presents an elaborate picture of the marine fish marketing in the country. I appreciate the authors Dr. R. Sathiadhas, Dr. R. Narayankumar and Dr. N. Aswathy for bringing out this timely publication. I am highly confident that this book will be of immense use to the academicians, students, researchers, Government departments, policy makers and other agencies concerned with the marine fisheries sector of the country.

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Authors
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**Acronyms**

ADM  
Anti Dumping Measures

AFD  
Accelerated Freeze Dried

ASEAN  
Association of South East Asian Nations

DAHD&F  
Department of Animal Husbandry, Dairying and Fisheries

DHAN  
Development of Humane Action Foundation

DSB  
Dispute Settlement Body

EEZ  
Exclusive Economic Zone

FAC  
Food and Agricultural Organisation

FDWC  
Fishermen Development and Welfare Co-Operative Societies

FISHCOOPFED  
National Federation of Fishermen’s Cooperative

FMSP  
Fisheries Management Science Programme

FOB  
Free On Board

GMM  
Gross Marketing Margin

GSDP  
Gross State Domestic Product

GSP  
Generalised System of Preferences

HACCP  
Hazard Analysis and Critical Control Point

ICSF  
International Collective in Support of Fish Workers

IFP  
Integrated Fisheries Project

IPQC  
In Process Quality Control

IQF  
Individual Quick Freezing

ISO  
International Organization for Standardization

IUU  
Illegal, Unreported and Unregulated

KMS  
Kalanjia Meenavar Sangham

MATSYAFED  
Kerala State Co-Operative Federation for Fisheries Development

MDG  
Millennium Development Goals

MPEDA  
Marine Products Exports Development Authority

MSY  
Maximum Sustainable Yield

MUCS  
Matsya Ulpadaka Co-Operative Societies

NABARD  
National Bank for Agriculture and Rural Development

NAMA  
Non- Agricultural Market Access

NCDC  
National Cooperative Development Corporation
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>NFDB</td>
<td>National Fisheries Development Board</td>
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<td>NIFPHATT</td>
<td>National Institute of Fisheries Post Harvest Technology and Training</td>
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<td>NSDP</td>
<td>Net State Domestic Product</td>
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<td>NSSO</td>
<td>National Sample Survey Organization</td>
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<td>PFCS</td>
<td>Fishermen’s Primary Cooperative Societies</td>
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<td>PMMCR</td>
<td>Percentage Share of Marketing Margin in Consumer Rupee</td>
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<td>PSFPR</td>
<td>Percentage Share of Fishermen in the Consumer Rupee</td>
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<td>QR</td>
<td>Quantitative Restrictions</td>
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<td>SATPA</td>
<td>South Asian Preferential Trade Agreement</td>
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<td>SCM</td>
<td>Subsidies and Countervailing Measures</td>
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<td>SHG</td>
<td>Self Help Group</td>
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<td>SNVF</td>
<td>Sthree Niketh Vanitha Federation</td>
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<td>SPS</td>
<td>Sanitary and Phyto-Sanitary Measures</td>
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<td>TBT</td>
<td>Technical Barriers to Trade</td>
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<td>TED</td>
<td>Turtle Excluder Devices</td>
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<tr>
<td>TNFDC</td>
<td>Tamil Nadu Fisheries Development Corporation Ltd.</td>
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<tr>
<td>TQM</td>
<td>Total Quality Management</td>
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<tr>
<td>UNO</td>
<td>United Nations Organization</td>
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<td>WTO</td>
<td>World Trade Organisation</td>
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Fisheries have been the traditional avocation of the coastal fishing communities and a source of income for over 100 million people across the world. The sector is expected to play a major role in achieving the Millennium Development Goals (MDG) - a set of goals aimed at halving the number of people living below poverty line by 2015 (FMSP, 2006). In India, the fisheries sector has been transformed from a mere source of subsistence living to the status of a multi-crore industry contributing consistently about 1-1.4 percent of the country’s GDP. This transformation has been made possible through the developments in fishery harvesting methods (craft-gear combinations), on board and on shore fishery infrastructure (ice factories, processing and packing facilities) and consistent demand for fish and fish products both in global and domestic market. The marine fisheries sector provides livelihood support to 12.2 lakh fishers directly in fishing operations all along the Indian coast, more than 15 lakh in the fishery related activities (secondary sector) and another one lakh in the fishery supporting services (tertiary sector).

In India, the fish production (both inland and marine) has increased from 0.75 million tonnes (1950-51) to 7.85 million tonnes (2009-10). While the inland fish production has increased over the years, the marine fish catch remained stagnant for the last two decades. The value of the marine fish landings have been estimated at ₹ 22,648 crores at point of first sales and at ₹ 36,964 crores at point of last sales in 2010, which underscores the potential earning capacity of the sector. The sector has earned a foreign exchange of ₹ 10,000 crores (2009-10) through the export of 6 lakh tonnes of sea food products.

The increase in price of fish and fishery products during the last few decades is higher than any other food products in our county. The rate of increase in price of essentials like rice, wheat and other food grains or livestock products like chicken, mutton etc are much lower than the increase
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in price of different fish varieties. Markets determine the price of any product. The price of any product highly depends on its demand. Demand virtually influences the supply and both supply and demand together decides the marketability. This is more true in the case of open access or common property resources in which demand creates its own supply, contrary to the “supply creates its own demand” theory promulgated by the famous economist Say’s law of supply.

Marine fish marketing in India has undergone rapid changes over the years. Increase in demand for fish enhanced the fishing intensity and excessive demand for certain varieties led to targeted fishing in our open access fisheries. The increase or decrease in demand for any product greatly depends on its utility reflected on consumer preference and their income level. Fish and fishery product attracts high consumer preference and increasing demand all over the world due to its high utility as a nutritionally rich healthy food.

The perishable nature of fish compels its quick disposal in each point of transaction. Several technological innovations and changes have taken place in the marketing pattern of fish both in fresh or processed form of disposal, preservation, storage, transportation, wholesale and retail marketing systems. The wastage in the marketing process has been considerably reduced due to the innovative technological changes introduced in this sector. Anything caught and brought to the shore commands a premium price in most of the landing centres in the country. Now the fishing harbours and major fish landing centres all along the coast are functioning as big primary markets and transformed as large commercial centres.

Fresh marine fish now reaches far away places from the sea shore. Immediately after landing, it travels very fast and within hours reaches distant places and far away demand centres indicating immense changes that have taken place in the transport sector and efficiency of the marketing system. Product diversification and value addition further promoted assured price to the producer in the fisheries sector. Now even bumper catches are to a greater extent absorbed in the marketing system and price crash and selling at throw away prices at landing centre are not seen. The present day fishermen are price makers and not price takers as in the past.

Fish markets are unique in nature as both as typical examples of organized as well as unorganized marketing system in the country. There are innumerable permanent as well as temporary road side retail fish markets in addition to street to street cycle vendors and door to door head load vendors doing fish marketing. It is in this context that fish markets are the typical
examples to cite anything unorganized or unsystematically done. Despite
the improvements in the marine fish harvesting and marketing sectors, the
benefits are not uniformly distributed among the different components of
the fishing industry. In marine fish marketing, only 15 per cent of production
is exported and the remaining is channelised in the domestic marketing
system. Thus there is a need to make a comprehensive evaluation of the
price behaviour and marketing systems in marine fisheries sector of India
to assess the opportunities and challenges in the sector and to evolve suitable
policies for revamping the sector. The overall objective of the study was to
develop a database for formulating policy measures for marine fish
marketing, identify the weak spots in the existing marketing system in India
and suggest suitable policy interventions.

The specific objectives are:

1. To assess the primary, wholesale and retail price behaviour of all
   commercially important marine fishes
2. To analyse the fish marketing structure and role of intermediaries in
   the distribution channels
3. To examine the price spread, marketing margins, fishermen's share in
   the consumer's rupee and to suggest measures for improving marketing
   efficiency
4. To estimate the incremental returns and value addition in marine fishery
   business
5. To estimate the employment generated in the post harvest operations
   of marine fish marketing and scope for alternative employment in value
   addition and processing and
6. To suggest suitable policy interventions for improving the marine fish
   marketing in the country

Data and Methodology

The marine fish is marketed in about 1,400 landing centres spread along
the Indian coast and nearby wholesale and retail markets. In few cases, the
exportable varieties go directly to the export market. The data collected on
the prices of different fish varieties marketed at the landing centre, wholesale
and retail markets by the Socio Economic Evaluation and Technology
Transfer Division of the Central Marine Fisheries Research Institute under
the projects, Price behaviour and marketing systems of marine fisheries
in India and Benefit cost analysis of marine fishery business and
alternative investment options during the period 2000-2010 are used widely
in this publication.