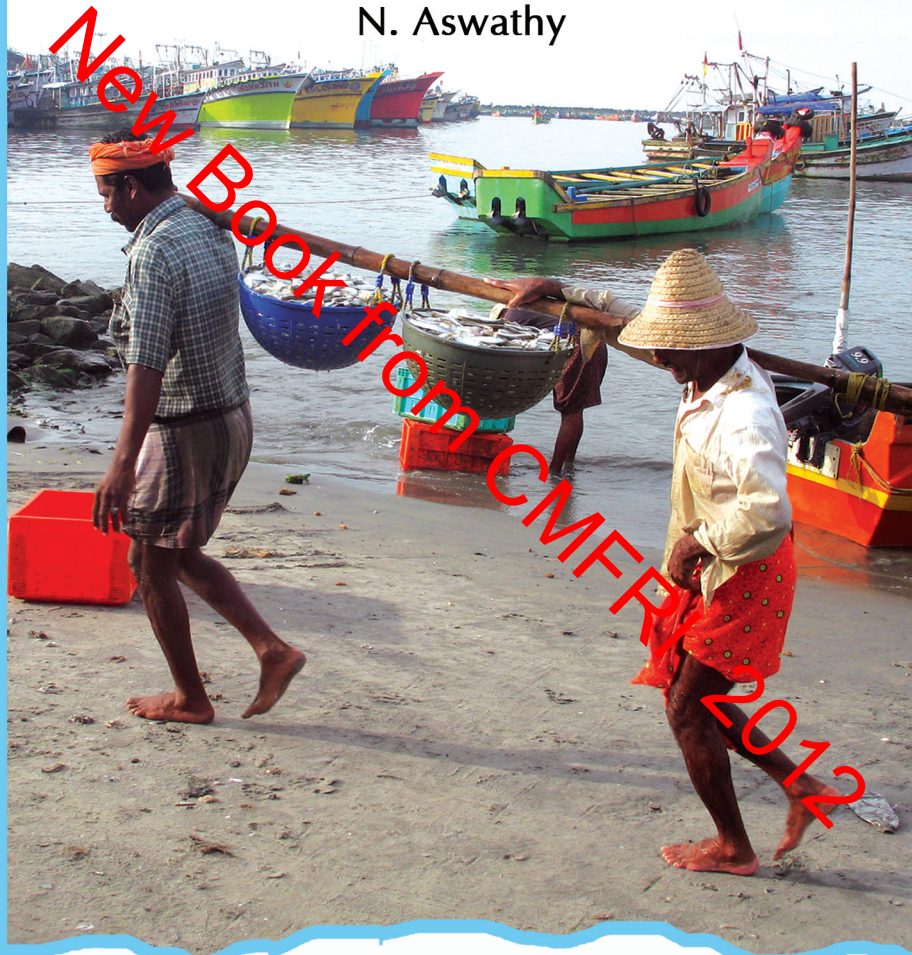


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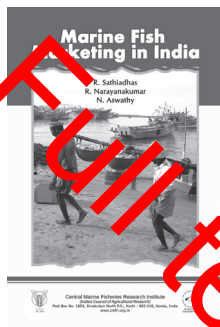
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Contents

Foreword	v
Preface	vii
Acknowledgements	ix
Acronyms	x
1 Introduction	1
2 Fisheries in Indian Economy	9
3 Marine fishery resources, investment and coastal economy	20
4 Marine fish marketing system	115
5 Price behaviour in domestic markets	132
6 Efficiency in marine fish marketing	154
7 Export marketing of marine products	188
8 Market expansion by value added seafood products	209
9 Marketing and utilization of marine byproducts	223
10 Employment and role of fisherwomen	233
11 Institutions in fish marketing	248
12 Conclusion and policy implications	260
References	266
Index	274

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.

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, traders and planners to finalize their marketing strategies and I appreciate the efforts taken by the authors to bring out this publication.

5-10-2011

New Delhi-110114



S. Jayappan

Secretary & Director General,
Department of Agricultural Research & Education
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

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. Narayanakumar and Dr. N. Awathy 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.



G. Syda Rao

Director

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Authors

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

NFDB	National Fisheries Development Board
NIFPHATT	National Institute of Fisheries Post Harvest Technology and Training
NSDP	Net State Domestic Product
NSSO	National Sample Survey Organization
PFCS	Fishermen's Primary Cooperative Societies
PMMCRR	Percentage Share of Marketing Margin in Consumer Rupee
PSFCR	Percentage Share of Fishermen in the Consumer Rupee
QR	Quantitative Restrictions
SATTA	South Asian Preferential Trade Agreement
SCM	Subsidies and Countervailing Measures
SHG	Self Help Group
SNVF	Sunee Niketh Vanitha Federation
SPS	Sanitary and Phyto-Sanitary Measures
TBT	Technical Barriers to Trade
TED	Turtle Excluder Devices
TNFDC	Tamil Nadu Fisheries Development Corporation Ltd.,
TQM	Total Quality Management
UNO	United Nations Organization
WTO	World Trade Organisation

1

Introduction

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 per cent of the country's GDP. This transformation has been made possible through the developments in the 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 sale 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 country. 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

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 reatail 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 alternate 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.