Introduction

Fisheries provide one of the richest renewable natural resources. From time immemorial fishing has been the traditional occupation for a large segment of the population inhabiting on the sea coast.

To exploit the fishery wealth the fishermen devised several techniques. Some of these techniques have created certain problems both for the administration and to the traditional fishermen.

The thesis analyses the problems faced by the fishing industry in Kerala, especially after mechanisation.

Objectives of the Study

The objectives of the study are:

1. to analyse the economics of operation of the mechanised fishing and to
discuss the important problems and issues of this sector.
2. to suggest various conservation measures based on the principle of fishery management regulations to avoid over fishing of the commercially important species.
3. to recommend the feasibility of fish culture activities as a source of income and employment to the fishermen community.
4. to suggest with the help of relevant data to the concerned authorities various measures for planning and implementation of development programmes for the benefit of the most exploited people of this sector.

Hypothesis
1. Fish catch levels have remained stagnant during the past in spite of various developmental programmes.
2. Mechanised fishing throughout the year is uneconomic in terms of cost and yield.
3. Fish culture industry can be developed for generating income, employment and foreign exchange earnings to the state.

Methodology
The study is both analytical and descriptive. The data for the study were collected in the following way.
1. Primary data for analysing the economics of mechanised fishing were collected for six quarters from the maximum concentrated mechanised fishing centre of Sakthikulangara-Neendakara belt.
2. To study the importance and potential of fish culture activities data were collected from the experimental fish farms of the Kerala Agricultural University, Ernakulam. Production function method is used to evaluate the economics of culture operation.
3. Secondary data were collected from various Fisheries Research Institutes and the Fisheries Department, Government of Kerala to derive the income trends for the various gear types in Kerala.
4. Secondary data regarding the fish production trends of 28 quarters were collected to find out the seasonal variations based on time series forecasting models.
5. Secondary data from MPEDA were also used to analyse the importance of marine products export in the State of Kerala.

Data collected from different sources were supplemented by holding discussions with the fishery experts of different research institutions.

Limitations
The study is subjected to many limitations. The major limitation is the availability of reliable and accurate data with reference to the economic performance of the industry. The mechanised boat owners invariably try to understand the catch and value of the products and overstate their economic problems. There is wide variation in the catch data of the artisanal sector from one source to another.

Plan of the Study
Chapter I gives the origin and development of the fishing industry, its methodology, scope and objectives of the various developmental issues. Chapter II examines
the use of the various production methods and technology. Chapter III presents the production trends, iterative behaviour of fish production based on harmonic analysis of time series model and ARMA modelling. In Chapter IV the development and growth of fish processing and other subsidiary industries have been analysed. Chapter V presents the importance of transportation and marketing for the minimum spoilage and waste of fish products.

The present problem of the fishing industry, i.e., the conservation and management regulations are highlighted in Chapter VI. In Chapter VII, the structural and changing pattern of Kerala’s marine product export is analysed. Chapter VIII presents two case studies, one relating to the mechanised fishing and its economics based on cost-benefit analysis, discounting method and statistical coefficient of seasonal fishing ability. The other relates to the economics of fish culture activities based on Cobb-Douglas production function.

The last chapter presents the summary, findings, and recommendations of the study.

**Recommendation and Conclusion**

1. Traditional fishermen, who are socially and economically backward should be given due importance in the planned fishery development of the state by providing credit, marketing and other infrastructural facilities.
2. In order to safeguard the traditional fishermen fishing zones for the traditional and mechanised fishing should be strictly enforced.
3. The present number of mechanised boats are more than optimum for exploiting commercially important species. Mechanised fishing licenses should be stopped and the existing excess boats should also be deployed to diversified fishing activities.
4. Mechanised fishing is profitable only in certain seasons and this being the much controversial months of June-July-August. So banning of trawling during these monsoon months will be suicidal to the mechanised fishing industry.
5. To ensure better and reasonable prices for the fishermen’s produce, marketing societies are to be organised by the fishermen themselves.
6. Brackish water fish culture has immense scope in Kerala for generating income and employment to the fishermen. This would also help to earn more foreign exchange at a time exportable species are dwindling from the capture fisheries.
7. Motorisation of the traditional sector helps to earn more incomes to the poor fishermen. So infrastructural facilities must be provided to them by the state for the development of motorisation.