CHAPTER I
INTRODUCTION

1.1. Introduction

Fisheries economics emerged as an important field of research after the Second World War. Till then, studies relating to fisheries were almost completely confined to biological aspects of fisheries. Quite a few studies focusing on purely technological aspects were taken up, largely in developed countries. The third world countries' interest in fisheries was aroused in 50s and 60s of 20th century when most such countries embarked upon ambitious schemes of economic development. At this juncture, world development agencies like United Nations Organisation (UNO) through Food and Agriculture Organisation (FAO) took active interest in the development of fisheries as it turned out to be potential source of food and nutrition for the rapidly growing population of the world. These gave rise to growth of prolific studies relating to fish production, marketing, technology, fishery resources, finance, price, socio-economic conditions, etc. (Sreedevi, 2012).

Global fish production has grown steadily in the last five decades, with food fish supply increasing at an average annual rate of 3.2 percent, outpacing world population growth at 1.6 percent. World per capita apparent fish consumption increased from an average of 9.9 kg in the 1960s to 19.2 kg in 2012. This impressive development has been driven by a combination of population growth, rising incomes and urbanization, and facilitated by the strong expansion of fish production and more efficient distribution channels (FAO, The State of World Fisheries and Aquaculture: Opportunities and challenges., 2014)

China has been responsible for most of the growth in fish availability, owing to the dramatic expansion in its fish production, particularly from aquaculture. Its per capita apparent fish consumption also increased an average annual rate of 6.0 percent
in the period 1990–2010 to about 35.1 kg in 2010. Annual per capita fish supply in the rest of the world was about 15.4 kg in 2010 (11.4 kg in the 1960s and 13.5 kg in the 1990s). Despite the surge in annual per capita apparent fish consumption in developing regions (from 5.2 kg in 1961 to 17.8 kg in 2010) and low-income food-deficit countries (LIFDCs) (from 4.9 to 10.9 kg), developed regions still have higher levels of consumption, although the gap is narrowing. A sizeable and growing share of fish consumed in developed countries consists of imports, owing to steady demand and declining domestic fishery production. In developing countries, fish consumption tends to be based on locally and seasonally available products, with supply driving the fish chain. However, fuelled by rising domestic income and wealth, consumers in emerging economies are experiencing a diversification of the types of fish available owing to an increase in fishery imports (FAO, The State of World Fisheries and Aquaculture: Opportunities and challenges., 2014)

Endowed with bountiful aquatic resources, rich diversity of cultivable fish species and high tropical temperatures, India has a long tradition of exploiting fishery resources (Sujatha. H. R. and Mahesh, 2006). Fishing is an important industry and economic corner stone of the Indian market. These resources are one of the main sources of livelihood for the rural poor, particularly the fishermen community. The fisheries sector contributes to the livelihood of a large section of economically underprivileged population of the country. The increasing trend in fish production plays an important role in earning foreign exchange (S. Rameshkumar, 2011).

Fisheries are a human phenomenon and are places where human activities are linked with marine ecosystems and renewable resources. Fisheries play a vital role in ensuring the livelihood of a large number of people belonging to the economically weaker sections of the population of the State. It is identified as a powerful tool
stimulating growth of a number of subsidiary industries and is a source of healthy and nutritious food (Fisheries Policy Note, 2014).

Fishing provides an abundant and an almost inexhaustible source of food supply. The fisheries resources of the world are important in varying degrees to all nations as they are obsessed with increasing fish resources. A failure in the fishing or a decrease in price adversely affects the whole of economic status of fisher folks. However, the fish trade occupy an influential and to some extent, unique place in the world’s economy especially in India. In other words failure in Fisheries sector may influence the economic stability of the whole economy. Therefore fisheries are an inevitable sector for the mankind.

1.2. Fisheries: Supplier of Food and Employment Generator

Fish is an important food for mankind as it is capable of making a substantial contribution to the requirements of animal protein of human body. Fish is the only source of animal protein in countries like Japan and China. Fish contains the enriched in protein, fats, iodine and vitamins that human bodies require and it is the easiest digestible sea food for human being. In estimating the nutritive value of the various species of fish, the protein, vitamins and mineral contents are to be considered. This varies from species to species. The fat contents show a wide variation from season to season. The dried fish contains 70 to 80 per cent protein. Besides, the protein contents, the digestibility and the composition of protein make the fish important for human living. This protein has more biological value when compared to milk, meat, soya and rice. (The Perspective Plan for Tamilnadu, 1972).

Fish and fisheries products are considered superior to red meat in many parts of the world. As a result consumption of fishery products is on the increase among the health conscious world population. The fishery industries have generated enormous
employment and export potentiality in fish production constitute an important source of high quality protein, vitamins, iodine, etc., Health conscious is now a day’s growing awareness in earth. Thus the consumption of fish attracted all persons owing to its health potentialities and mineral limits which instigate the importance of high consumption. Many varieties of fish and fish oil have medical value. Asha C. Parameswaran and Nero Shahin had given cogent reasons for eating more seafood viz. i) People who eat seafood regularly are healthier than those who do not (ii) sea food is the richest source of omega-3 fatty acids (iii) omega-3 fatty acids are essential for foetal and infant development (iv) most sea food is lower in fat and calories than most meats (v) most sea food has less saturated fat than meat and cheese and (vi) most seafood has less cholesterol than meat and poultry. (C.Parameswaran and NeroShahin 2005).

Fisheries have been recognized as a powerful income and employment generator owing to the continuous growth of fish production. The fisheries sector has been one of the major contributors of foreign exchange earnings through export (S. Rameshkumar, 2011).

Fish and fishing business is an important sector of many nations of the world from the standpoint of income and employment generation. Fishing plays an important role in supporting livelihood worldwide and also forms an important source of diet for over one billion people. It is estimated that 12 million people are directly engaged in fishing and about 60 million are exclusively depending on it for livelihood in India (Sekhar NU, 2005). Fisheries-related activities provide important sources of livelihoods for nearly 7 million people in India.

Further, fisheries have been recognised as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and is a source of cheap animal protein. It is an instrument of livelihood for a large section of
economically backward population of the country. Fisheries is the only sector that offers cheap and good animal protein to the people, particularly to the economically weaker sections of the society and thereby it serves as a means to ensuring national food security. It is also a major contributor of foreign exchange earnings for several countries including India through export. The potential forward and backward linkages through boat building, construction of fishing harbors, fish processing etc. contribute further to diversification and strengthening of the regional and national economy.

By concluding the discussion of the importance of fisheries sector it is inevitable to understand and study the arena of fisher folks in general. Thus, the following section discusses about the fisher folks.

1.3. Fisher folks

A fisherman or fisher is someone who captures fish and other animals from a body of water, or gathers shellfish. The fisher folk community referred to one caste or Jati, otherwise “Paravas”, “Parathar” or Bharathas”. This particular community lives along the Coromandel Coast. It is unique group in itself. Their life revolves around sea and the coast. According to Patrick A. Roche (1984), fishermen are Parava jati, to be a specific Social group recruited by birth which collectively observes endogamy and a distinctive caste polity. According to United Nations FAO statistics, the total number of commercial fishermen and fish farmers is estimated to be 38 million. Fisheries and aquaculture provide direct and indirect employment to over 500 million people in developing countries (Fisheries and Aquaculture in our Changing Climate Policy brief of the FAO for the UNFCCC COP-15 in Copenhagen, December 2009).

Fishing communities in India are not homogenous, as they belong to different castes. These communities have their distinct social, cultural governance structures
and traditional practices, depending on the coast, where they inhibit. Atleast 2-3 castes are exclusively involved in marine fishing in each maritime State, and are not related to the mainstream agrarian system (Fisheries and Fishing Communities in India, http://indianfisheries.icsf.net/en/page/613-Fishing%20Communities.html, 2016).

There has been a tremendous growth in the marine fisheries sector because of the developments made in the fish harvest and post harvest sector and also there is an increased demand for seafood both in domestic and export market: Fish is considered as the cheap and accessible source of protein for economically weaker population. In India a large number of populations depend on fisheries for their livelihood (Maharana, 2013).

The fisherman’s job is very enduring and dangerous. He risks his life each day for the sake of his livelihood and the health of his family. The fisherman should be given more aid by the Government so that the risk involved in his profession will be minimized. The traumatic loss of many fishermen to the sea on account of bad weather is sufficient reason for the Government to give due protection and recognition to the fishermen.

In India, socioeconomic status of a fisherman is depending upon the fish production in the coastal areas. The income of the fishermen is depending upon the category of the fishing unit they own. Majority of the families borrow money to meet their expenditure during the lean season even for buying food. The main reason for the indebtedness of the fishermen depends on their income and expenditure pattern. The income earned per trip varies according to season and the number and quality of nets used (S. Rameshkumar, 2011). Post harvest handling of fish from time immemorial has been carried out by women in coastal areas. The fish handling practices at landing
centres, processing sites and markets have been poor which leads to losses of a considerable percentage of this valuable commodity.

1.4. **Statement of the problem**

Even after implementation of twelve five year plans the Socio – economic conditions of the fishermen is not satisfactory. The poor economic conditions of the fisher folk worsen them in fulfilling even their basic needs.

During the fishing holidays (lean period) the fishermen remains idle with no economic activity which affects their social and economic life. The relief fund provided by the Government, during fishing holidays, is not sufficient to maintain their economic life. The programmes conducted or produced by the Government for upliftment of fishermen also remain a “Mystery”. Further, most of the fishermen were less perceptive about modern capture techniques affects their economic condition. Besides, there are a number of mediators exist between fisher folks and consumers to pull out the benefit of fisher folk.

The fisher folk take fishing as hereditary occupation and not interested in education and especially higher education. Thereby, the status of education among fisher folks is a chronic issue.

The fishery business is totally male dominant. The presence of discrimination of wages between men and women in Fisheries for the same type of work is alarming problem. The income inequality and Gender discrimination exists at a greater level among the fisher folks. Traditional patriarchal norms have relegated women to secondary status in the household and workplace. This drastically affects women's health, economic and social status.
According to the Handbook of statistics of Pudukkottai district (2015), there are more than 10,000 children engaged in fishing and related activities. The existence of huge number of child labour in Pudukkottai district induced the researcher to conduct a study to identify the causes.

The livelihood of the fisher folks of Pudukkottai District are further affected by the Sri Lankan Navy due to cross-border fishing. The fisher folks opine that the support from Government in protecting the fisher folks is not satisfactory.

In order to explore all these problems, the present study aims at conducting socio–economic survey of marine fisher folk in Pudukkottai District of Tamilnadu.

1.5. **Scope of the Study**

The present study analyses the different aspects of fisher folks of four categories viz. craft owners, fishermen, fisher women and children engaged in marine fisheries in the study area. To understand the life of fisher folks, the social and economic status in detail are analysed. To be more specific, the nature of profession, satisfaction in the profession, family type, education, caste and religion, income, expenditure, savings, borrowings and assets possession, type of fish caught, marketing of fish, cost involved in fishing, wage discrimination etc. are analysed. Even though enormous scope and potential present in marine fisheries, majority of the fishermen still live in low income trap due to various obstacles. In this study, an attempt is made to identify the major constraints faced by the fisher folks.

1.6. **Objectives**

a. To study various indicators of socio-economic status of craft owners, Fishermen/Fisher women, fisher children engaged in marine fishing of Pudukkottai District.
b. To identify the professional satisfaction level of craft owners, fishermen, fisherwomen and fisher children of Pudukkottai District

c. To examine the constraints faced by craft owners, fishermen, fisherwomen and fisher children engaged in marine fishing at work place and off the workplace in the upliftment of socio-economic status.

d. To analyse the perception of fisher folks about Government Support to them in Pudukkottai District.

e. To find the causes for the existence of child labour in Marine Fishing in Pudukkottai District.

f. To suggest measures to combat constraints and prevent child labour in Pudukkottai District.

1.7. Hypotheses

a. There is no difference between income of craft owners and fishermen, no wage discrimination between fishermen and fisherwomen, fisherwomen and fisher children of Pudukkottai District.

b. There is no significant relationship between Education of fisher folk and their income.

c. There is no significant relationship between age of the fisher folks and their income in Pudukkottai District.

d. There is no significant difference in income among various groups of fisher folks across type of family in Pudukkottai District.
1.8. Methodology

The present research has employed exploratory type of research design\(^1\). An in-depth analysis about the livelihood of fisher folk in Pudukkottai District of Tamilnadu is addressed through primary and secondary data.

1.8.1. Study area

The present study is conducted in Pudukkottai District of Tamilnadu, which was carved out of Tiruchirappalli and Thanjavur districts in January 1974. The district has an area of 4663 Sq. Km with a coast line of 42.8 km. The ratio of craft owners, fishermen, fisherwomen and fisher children in Pudukkottai District has a resemblance with the India’s fisher folks which is the main reason to select Pudukkottai District as a study area.

1.8.2. Period of the study

The study started during October 2013, the data required for the study was collected, after a thorough review of literature, from both primary and secondary sources. The primary data was collected from December to March 2015. The secondary source of data was collected from October 2013 to till the final draft of the thesis according to the requirements.

1.8.3. Sampling

Pudukkottai District of Tamilnadu was taken as universe and the marine fisher folks of Pudukkottai District were considered as population. From the literature review it is found that the people of Manamelkudi and Avudaiyarkovil are fully engaged in

\(^1\) The exploratory research design is known as formulative research design. The main objective of using such a research design is for formulating a research problem for an in-depth or more precise investigation, or for developing a working hypothesis from an operational aspect.
Marine fishing. Thus only these two Taluks were treated as a perfect representative of marine fisher folks of Pudukkottai District hence taken into study.

Proportionate Stratified random sampling was applied to select the samples in the study area. The fisher folks were classified into three strata viz. fishermen, fisherwomen and fisher children. Further, the fishermen are classified into two strata viz. Craft owners and wage earners engaged in marine fishing. Therefore, the craft owners, fishermen (wage earners), fisherwomen (wage earners) and fisher children engaged in marine fishing are the ultimate population units for the present research.

In order to determine the sample size “specified absolute precision” approach and Stratified Random Sample-Proportionate to Population method was employed. The final sample size is 676. Individually, the sample for each category i.e. for craft owners, fishermen, fisherwomen and fisher children are 144, 192, 132 and 208 respectively.

1.8.4. Data Collection

Information is inevitable for any type of research and knowledge. The data required for the present research is amply available in secondary forms. All the available secondary sources of data such as data from Department of Animal Husbandry, Livestock Census, Fisheries Statistics of Tamil Nadu, District Handbook, etc. were used wherever necessary and support the objectives of the research. Further, in order to explore, in depth, the socio-economic status of marine fisher folks of Pudukkottai district, primary data were collected using a well-structured interview schedule. For collecting primary data, the researcher has prepared three interview schedules for each strata viz. craft owners, fishermen and fisherwomen and fisher children engaged in marine fishing in the study area.
1.8.5. Analysis and Interpretation

The collected Primary data was entered in a systematic way in MS office Excel worksheet as a master table by allotting code values to nominal (qualitative) data and the quantitative data was entered as collected. The data entered in MS office excel was then transferred to SPSS Application as a master table to process and analyse the data. Frequency tables were generated with the help of ‘analysis tools’ of SPSS. Further, cross tabs and descriptive statistics were employed to infer the hidden facts of socio-economic conditions of marine fisher folk of Pudukkottai District. Differences between the socio – economic conditions of fishermen, fisherwomen and fisher children were identified by using correlation analysis and tests of significance especially, f distribution, t test, Whitney-Mann U test and Kruskal Wallis test.

1.9. Limitations of the Study

The meticulousness of the study depends upon the accuracy and reliability of data and its sources and methodological approach. But, without limitations no scientific inquiries exist. The findings of this research are subject to the following limitations:

a. As no recorded information was maintained by the households, the data collected through primary data are from their memory and past experience may involve inaccuracy i.e. the research is conducted mainly among the physical labourers i.e. fisher folks. Their response to the enumerator at the time of data collection may have memory recall bias.

b. The study was confined only to two Taluks Avudaiyar Koil and Manmelkudi of Pudukkottai District where the researcher found thick population engaged in marine fishing. The study does not include inland fishing and fisher folks engaged in inland fishing.
c. Some of the quantitative values given by the fisher folks in the study area during data collection were approximate, which is witnessed by the enumerator.

d. While taking sample for fisher children, the researcher found very difficult to identify and exclude whether the parents of these children are already in the sample (fishermen/fisherwomen).

1.10. **Chapterisation of the thesis**

I. Chapter I includes, introductory aspects of the thesis viz. importance of the study, statement of the problem, objectives, hypotheses and methodology

II. Chapter II is divided into two sections viz. concepts used in this research and “Review of Literature” related to the area of research.

III. A detailed review of Fisheries sector in India and Tamilnadu in general is presented in Chapter III.

IV. Chapter IV summarises the profile of the study area.

V. The socio-economic conditions of craft owners are analysed and presented in Chapter V

VI. Chapter VI concentrates on the analysis and interpretation of socio-economic conditions of fishermen/fisherwomen in the study area.

VII. Chapter VII is used to present the data analysis and interpretation on socio-economic conditions of fisher children engaged in marine fishing in the study area.

VIII. The results of testing of hypotheses are presented in Chapter VIII.

IX. Chapter IX summarises the findings of the study and concludes with a Policy suggestions and scope for the future researches.