Chapter - 1

INTRODUCTION
CHAPTER I
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The term ‘Fisheries’ is applied to the profession of catching any forms of life living in the rivers and sea (Karnataka Gazetteer). Fishing is one of the oldest means of subsistence of mankind and its history began when man had to be content with the food that nature could provide. Now in many countries it has been developed into a multifarious industry.

Fishing is one of the oldest means of livelihood. As a primary occupation, fishing is being practised in different parts of the world under different conditions. The development of fisheries has been assigned a very important place in the world economy. Fisheries is an important economic sector, which generates employment, income and foreign exchange to the economies of different country apart from the provision of healthy food. Fisheries sector stimulates the growth of number of subsidiary industries. In countries like Japan, England, Norway, Iceland, Sweden and Peru fisheries sector contributes substantially to the national economy.

Table 1.1 shows the world fisheries and aquaculture production and utilization from 2002 to 2006. In 2002 the total fish production of the country was 133.6 million tonnes comprising of 32.7 million tonnes inland and 100.9 million tonnes marine landing. In 2003 it declined mildly to 133.2 million tonnes due to a slight fall in the marine production. But there after, world fish production is witnessing an increasing trend. In 2006 of the total 143.6 million tonnes of fish production the share of inland sector was 41.7 million tonnes and marine was 102.0 million tonnes. Of this total production, 110.4 million tonnes of fish was used for human consumption and rest was used for non-food uses. Per capita food fish supply has increased from 16.0 kg to 16.7 kg “between” 2002 to 2006.
Table 1.1
World fisheries and aquaculture production and utilization

<table>
<thead>
<tr>
<th>PRODUCTION INLAND</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capture</td>
<td>8.7</td>
<td>9.0</td>
<td>8.9</td>
<td>9.7</td>
<td>10.1</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>24.0</td>
<td>25.5</td>
<td>27.8</td>
<td>29.6</td>
<td>31.6</td>
</tr>
<tr>
<td>Total inland</td>
<td>32.7</td>
<td>34.4</td>
<td>36.7</td>
<td>39.3</td>
<td>41.7</td>
</tr>
<tr>
<td>MARINE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capture</td>
<td>84.5</td>
<td>81.5</td>
<td>85.7</td>
<td>84.5</td>
<td>81.9</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>16.4</td>
<td>17.2</td>
<td>18.1</td>
<td>18.9</td>
<td>20.1</td>
</tr>
<tr>
<td>Total marine</td>
<td>100.9</td>
<td>98.7</td>
<td>103.8</td>
<td>103.4</td>
<td>102.0</td>
</tr>
<tr>
<td>Total capture</td>
<td>93.2</td>
<td>90.5</td>
<td>94.6</td>
<td>94.2</td>
<td>92.0</td>
</tr>
<tr>
<td>Total aquaculture</td>
<td>40.4</td>
<td>42.7</td>
<td>45.9</td>
<td>48.5</td>
<td>51.7</td>
</tr>
<tr>
<td>Total world fisheries</td>
<td>133.6</td>
<td>133.2</td>
<td>140.5</td>
<td>142.7</td>
<td>143.6</td>
</tr>
<tr>
<td>Utilization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human consumption</td>
<td>100.7</td>
<td>103.4</td>
<td>104.5</td>
<td>107.1</td>
<td>110.4</td>
</tr>
<tr>
<td>Non-food uses</td>
<td>32.9</td>
<td>29.8</td>
<td>36.0</td>
<td>35.6</td>
<td>33.3</td>
</tr>
<tr>
<td>Population (billions)</td>
<td>6.3</td>
<td>6.4</td>
<td>6.4</td>
<td>6.5</td>
<td>6.6</td>
</tr>
<tr>
<td>Per capita food fish supply (kg)</td>
<td>16.0</td>
<td>16.3</td>
<td>16.2</td>
<td>16.4</td>
<td>16.7</td>
</tr>
</tbody>
</table>

Note: Excluding aquatic plants.
(Source: FAO/ the State of World Fisheries and Aquaculture 2008)

Since the artisanal fishing was insufficient to exploit the abundant fishery resources modern technology was introduced in this sector. The introduction of modern technology along with construction of infrastructure
facilities such as fishing harbours, large landing sites, cold storages and processing plants and creation of new markets and marketing infrastructure etc resulted in a boom in fish production. After the Second World War, rapid expansion of world fisheries has witnessed a spectacular increase in the total fish production especially in maritime area. After the seventies, there has been a diminishing increase in marine fish catch due to limited stocks of fish species. Some of these species are already over exploited while others are nearing the limits of capacity. Despite this despair, many countries today competing one another to exploit the virgin areas of the oceans with modern sophisticated fishing technology.

Fisheries is one sector which needs proper planning and lot of research so as to develop it systematically. The important issues to be addressed in this sector are of amiable resource management, diversification of production and development of processing activities.

Malnutrition is a worldwide problem and in many countries of the world, people depend on fisheries as a source of food supply and protein foods. More animal protein of high quality can be obtained from fish than from any other type of non-vegetation food. In many tropical countries fish consumption now exceeds that of all other animal protein.

Nutrition experts agree that fish with the addition of variety of vegetable products constitute a completely balanced diet. Therefore proper harnessing of fisheries resources would definitely promote the standard of people’s diet.

In recent years, the commercialisation and mechanisation of fishing and resultant intensive fishing and ruthless exploitation has put tremendous pressure on the inexhaustible and otherwise renewable resources (Rekha Gaonkar et al. 2008).

In any country the development of fishery sector requires many provisions such as availability of adequate finance, suitable new technology, and growth of fishing units, expansion of fishing areas, introduction of new
fishing techniques, scientific and technical man power in research. In addition to it government has to play an anchor role in providing the above inputs and assistance to accelerate the growth of fisheries.

Role of fisheries in the Indian economy

Fisheries sector occupies a unique state in the economy of India not only from the point of view of cheap and nutritious food supplies and foreign exchange earnings but also its capacity to generate abundant employment opportunities. Fishing is the main source of livelihood for a large section of economically backward population of the country, especially in coastal parts. More than 7 million people in the country depend on fisheries. Fisheries sector has immense potential for the participation of women not only in traditional occupations but also in various avenues being created by fisheries industry. In India, in the marine fisheries alone there are more than 11 lakhs fisherwomen inhabiting about 2500 coastal villages. Besides, millions of people get employment in fish marketing, repairing of nets-boats, processing and transportation of fish. Fisheries sector also support canneries, processing establishments, gear and other fishing equipments manufacturers, boatyards refrigeration and ice making plant and transport services that are the important sources of employment to lakhs of people of the country. The fisheries sector contributed Rs.27026 crores to the GDP (2003-04 current prices) which amounts to 4.69 percent share in agricultural GDP and 1.07 percent share in the total GDP.

India is one of the leading nations in the world in marine fishery exports. Fish is treated as a brain food and as a result the demand for Indian fish in the global market is steadily increasing. During 2009-10 export of marine products from India set an all time record of 67836 tonnes valued at Rs.10048.53 crores.

Today China, Japan, India, U.S.A., Russian federation and Indonesia are the leading fish producing countries of the world. India's total annual fish production is 5.65 million tonnes comprising of 2.8 million tonnes inland and 2.83 million tonnes in the marine sector. India has vast untapped fishery
potential and it has to be exploited properly to increase the fish production as well as to give a good boost to fish trade in the international market.

The problem of protein deficiency has become more serious in India due to limited land resources and population explosion. But marine fisheries resources offer a promising solution to the problem of malnutrition.

Annual per capita fish consumption in India at present is only 5 Kg. But in China this is 30 Kg, Sri Lanka 27Kg, Bangladesh 35Kg, Japan 62.6 Kg. Average per capita fish consumption in Asian countries is 23 Kg, while in USA 19 Kg and the global average is 17 Kg (Das 2009)

Role of fisheries in Karnataka

Karnataka is one of the nine maritime states of India situated on the western edge of Deccan plateau. Nature has bestowed Karnataka with a long coast line and vast continental shelf area particularly rich in pelagic fisheries resources, and sufficient inland water resources. Karnataka state emerged as maritime state in 1956 with the reorganisation of the state. An independent department of fisheries was setup in 1957. For the development of fisheries and fishermen several developmental schemes have been implemented in marine and inland sectors.

Fisheries sector play a vital role in the economy of Karnataka in earning valuable foreign exchange, in creating vast employment opportunities, in supplying large number of subsidiary industries, besides providing nutritious food to the people.

The Gross domestic product of the state (GSDP) has shown a steady increase over the years. The contribution of fisheries sector to GSDP at current price during 2006-07 was RS. 92318 lakhs.

An important feature of Indian fisheries is rapid strides towards the mechanisation. Since independence both Central and State Governments have taken many steps for the development of this sector. The thrust of the marine fisheries development plan in Indian coastal States
including Karnataka is creating a base for the fisherman and improve their socio economic status. In spite of these efforts still majority of fishermen of our coastal villages remain poor on account of number of reasons. Therefore, any development planning and management of fisheries should necessarily give greater stress to improve the living condition of fishers. Inadequate information on such aspects has been one of the most serious impediments in effective policy making and planning.

Need for the study

Displacement taken place due to many development project and other ventures at the national and international level has victimised millions of affected people. Many development projects of the country have not provided, decent rehabilitation to the displacers, thousands of such people are yet to be resettled. Besides, those who have received compensation have been leading painstaking lives under the open sky. In India, in most of the cases rehabilitation measures undertaken remain only in paper. By neglecting the rehabilitation components of such ventures Government is heaping misery on such affected people. Obviously, affected people of such venture do not get any gains, but they are pushed to even more marginal areas, were they have no hopes. In India, in many cases weakest sections of the people are invariably been the victims of many big projects and they have not been rehabilitated properly. Such projects, do not bother about the impoverishment of people, their food security and right to lead a decent life.

Uttar Kannada district is basically a coastal district where fishing is one of the oldest and important occupations of the people of many communities and religions. This coastal district is considered as backward district and has been heavily victimised in the name of development. The establishment of giant projects like hydro power plants, atomic power station etc. has made much adverse impact on environmental condition and life of the people in the district. A major thermal power project which was to be set up at Tadri of Kumta taluk
in the district was stopped for the time being due to strong opposition of the people, environmentalists and the various organizations. Launching of Sea Bird Naval Project may be pride and indispensable from the point of view of national defence. But it may also hit the life of affected people especially the most backward and innocent fishermen community in many ways. The ambitious Sea Bird Naval Project spread over 23kms between Karwar and Ankola has evacuated as many as 4,111 families mostly fishermen.

The review of literature revealed that some studies have been done on the various aspects of fisheries on displacement and rehabilitation caused by many development projects. But study conducted on displacement of fishermen caused by defence project like Naval is very rare. Inadequate information on such aspects has been one of the most serious impediments in effective policy making and planning for rehabilitation. The present research attempts to study the socio-economic life of displaced fishermen on occupation wise, besides analysing their employment pattern, income earning, utilization of compensation, fishing activities, and seeks to explore the impoverishment of fisher women caused by displacement. The study aims to focus socio economic states of displaced fishers which will help to draw the attention of the policy makers to overcome the major problems of fishermen and consequently to improve their standard of living. The study will contribute to the holistic understanding of problems emerging from displacement and to find proper solution to the grievances of the fishermen and other affected people. Accordingly the research problem is entitled as “Displaced fishermen of the Sea Bird Naval Project” An Economic Analysis.

OBJECTIVES

The specific objectives of the study are;

1) To evaluate the educational status of displaced fishermen on occupation wise.

2) To study the present occupational pattern and income earning of displaced fishermen.
3) To evaluate the pattern in the utilization of compensation by the displaced fishers on occupation wise.

4) To assess the loss of fishing equipments caused by displacement and to analyse species composition, yearly catching of fish on boat wise in the rehabilitated fishing grounds.

5) To compare the standard of living of the displaced fishers on occupation wise.

6) To assess the impoverishment of fisherwomen caused by displacement.

7) To suggest appropriate policy measures.

HYPOTHESES

1) The displacement of households has led to movement of people from primary sector to secondary and tertiary sectors with increased vulnerability.

2) The households with higher education and land ownership received greater compensation compared to fishing communities in the absence of well defined property rights.

3) The fishers have utterly failed to prudently utilise the compensation provided to them.

LIMITATIONS OF THE STUDY

The study is of descriptive nature and is based on both primary and secondary data. The study has been handicapped by the fact that it has not been able to compare the socio-economic position of fishermen before and after displacement. Before displacement these fishermen were living jointly under one shelter. But after displacement joint family structure got disintegrated and paved the way for nuclear family. After displacement fishermen families have become fragmented due to sharing of compensation and other reasons. Therefore, it was not possible to make a comparative analysis of past and present life of the fishermen in a perfect and precise way. In spite of our ardent
efforts to get accurate information, many fishermen respondents expressed their inability to provide the necessary information about their past and present due to their ignorance, unawareness and unwillingness. To that extent the analysis becomes subjective.

PRESENTATION OF THE STUDY

The study has been presented in five chapters,

Chapter I deals with the introduction which includes a general outline of the world fisheries and role of fisheries in the economy of India and Karnataka and the need of the study, specific objectives, hypotheses and limitations of the study.

Chapter II presents review of relevant studies made in the past, related to the objectives of the study by classifying them as fishery related and rehabilitation related review of literature.

Chapter III deals with methodology adopted in the study, including profile of the study area, data base, fishermen households selected for the study and sampling techniques adopted for the study.

Chapter IV contains an overview of the fisheries sector of India such as fish production, mechanisation in fishing and export of marine products and various /expects of fisheries in Karnataka and in Uttar Kannada district.

Chapter V gives the bird’s eye view of Sea Bird Naval Project which includes acquisition of land, and acquired villages for the project and rehabilitation centres, rehabilitation packages provided for the project.

Chapter VI contains the result of the field study conducted to analyse the socio economic conditions and other aspects of displaced fishermen of the Sea Bird Naval Project.

Chapter VII gives the summary of the whole study, draws conclusion and suggestion for the future policy making.