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AN OVERVIEW OF MARINE FISHERIES IN KERALA

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ABSTRACT

In this paper the case study is about describing the Marine fisheries in Kerala and the various problems faced in this sector along with the suggestions for removing the obstacles in this field.

Marine Fishery has been an occupation of the coastal people from time immemorial, forming an integral part of the community's maritime heritage. Kerala is one of the active maritime states in India and also a leading producer and consumer of fish. At the same time, the coastal areas in the state facing serious environmental challenges caused by development of coastal regions on one hand and climate change induced threats on other.

The main objective of this paper is to analyse the Marine fisheries in Kerala and also evaluate its problems and suggestions associated with it.

Keywords: Marine, Obstacles, Immemorial, Heritage, Climate Change.

Introduction

Fishes are cold-blooded animals typically with backbones, gills and fins and they are primarily dependent on water as a medium to live. They are normally caught in the wild. The term "Fishery" means an area which supplies abundant fish for commercial purposes and "Fishing" is described as the activity of hunting for fish. The occupation of fishing came into existence before the emergence of agriculture and still continues to be one of the major occupations of the world. The fishing sector is a major source of animal protein to population, employment and income for rural poor and a source of valuable foreign exchange for the country.

Marine Fisheries

Marine Fishery has been an occupation of the coastal people from time immemorial, forming an integral part of the community's maritime heritage. In India, it is one of the well-developed sectors which provides livelihood for 10 million coastal fishermen, vast employment generation opportunities and foreign exchange earnings. Around 60 percent fish production in India comes from Marine Fisheries. The last 40 years has witnessed nearly 3.5-fold increase of marine fish production.

Objectives of the Study

- To understand the status of Marine Fisheries in Kerala
- To analyze the Problems of Marine Fisheries in Kerala and point out the suggestions associated with it.

Methodology

This paper is based on Secondary data. The Secondary data were collected from articles published in various journals, books, periodicals and websites. Information from literature on historical evolution of Marine Fisheries in Kerala and the progress and problems it has attained were also collected from various published sources and internet.

History of Marine Fisheries in Kerala

Fishing Industry in Kerala had a long and varied history. During pre-historic periods fisheries developed in rivers and lakes and in marine waters close to shore, where fishes were easily available and could be taken by hand or with the simplest artificial devices.

The colonial administration in India led to the underdevelopment of the fishing industry in Kerala. But after independence the fisheries sector in Kerala witnessed rapid development. The decade 1950 was noted for the fisheries improvement effort as a result of the introduction of Indo-Norwegian Project (INP) in 1953. Then there is a move to construct larger boats with powerful engines using completely new fishing techniques. The fish economy suddenly transformed into an area of increased internal investment and involvement. This led to the formation of a "modern sector" in the fisheries sector with sufficient help from the Governmental side with export-oriented thrust to foreign exchange earnings.

The greatest rise and fall of fish production are in Kerala during 1970s. But after 1973 production showed a sudden decline and stagnation. Fish production entered the lowest mark of 2,79,000 tonnes in 1980. Majority of the fishermen are incapable of owning



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the technology and resources necessary to indulge fishing activities. The subsequent competition for space, resources and fish price led to the pauperization of the traditional fishermen. So, the fishermen howled for effective measures to check resource depletion and saving the fishery economy from the present stagnation.

Marine Fisheries in Kerala

Kerala, the southernmost state of India, facing the Arabian sea has a coastal line of 590 km length, ie,10% of India’s coast line. In Kerala, the high rate of rainfall and the number of rivers make it the most fertile for fish. One specialty of the Kerala coast is mud banks, known in Malayalam as “Chakara”. It is the formation of clay and organic matters in the coastal waters which takes place often soon after the monsoon in the calm sea area resulting in a good harvest of fish. Whatever the season offers, the plight of the fishermen is fixed since there are no fixed rules and regulations as far the traditional and mechanized sectors concerned while dealing with the fish catching. Survival of the fittest is the order of the day.

The coastal line of Kerala spread over nine districts and these are the marine districts of Kerala – Thiruvananthapuram, Kollam, Alappuzha, Ernakulam, Thrissur, Malappuram, Kozhikode, Kannur and Kasaragod. Among this, the population of fishermen is highest in Alapuzha with a population of 1.86 lakh followed by Thiruvananthapuram with 1.83 lakh population. Kerala has the eighth position in terms of the fisher folk population among the fourteen coastal states of India. The number of aged populations is very low among the marine fisher folk in Kerala. Education wise, many members of the community were dropouts at primary or secondary level owing to many reasons and only a few have been able to pursue higher studies. On considering religion, hindu fisher folk are mostly found in the central and northern districts of Kollam, Alapuzha, Thrissur and Kasargode districts of Kerala, who belong to the caste groups of ‘arayans’, ‘velan’, ‘mukkuvas’, and the ‘marakkans’ respectively.

Kerala is one of the active maritime states in India. Kerala rank second in marine fish production of India, around 1.24 lakh MTs in the year 2010-11 and earned an income of 2002.10 crores. Around 1.85 lakh people are directly involving the marine fishing activity and approximately 500000 people are doing fishing contributing 21% to the total annual production. It makes a significant contribution to the National Income through export of marine products.The rich marine wealth with a large variety of fish and a highly skilled population of fishermen has made Kerala a leading producer and consumer of fish. Besides the high rainfall and a large number of rivers make the Kerala coast especially fertile for fish.

The Government of India and other agencies have already put forces in improving Kerala fishing scenario by implementing schemes and programmes like Housing Scheme, Insurance cover for fishing implements, Pension to fishermen, Purchase of fishing nets, Saving cum relief scheme for the poor fishermen etc.

Major Problems of Marine Fisheries in Kerala

Kerala is one of the leading states in India in terms of growth of marine fisheries over the years. At the same time, the coastal areas in the state facing serious environmental challenges caused by development of coastal regions on one hand and climate change induced threats on other. The process of coastal erosion increased with human activities such as urbanization, building of dams, expansion of harbors etc. Hence the coastal areas have been facing serious issues and challenges in terms of declining fish stock along with various climate change related problems impacting the livelihoods of the coastal areas.

The main problems facing the Marine fisheries of Kerala are the following:

- **Vulnerable socio-economic conditions of fisher folk:** Many physical, social and economic issues affect the fishermen of Kerala like high operating costs of individual crafts gear, economic loss in terms of loss of juvenile fishing of certain species by trawlers, purse seiners, ring seiners etc. Being trapped in the vicious cycle of poverty, backwardness is a part and parcel of traditional fisher folk, who need high boost up to come to the forefront of development path.
- **Mechanisation:**Development in equipments, instruments, machines etc leads to mechanization in fishing and development in fish production. But in Kerala it led to marginalization and poverty of traditional fishermen because with their canoes and small vessels they were unable to compete effectively with the trawlers and thus affecting the livelihood of traditional fisher folk adversely.
- **Impacts of Climate change:** Marine and coastal eco systems are vulnerable to climate change issues like ocean warming and sea level rise, that can result in direct impact upon the lives and livelihoods of coastal fishing communities. In Kerala. Climate change affect the productivity of marine fisheries through alteration of water temperature, indirect and direct effects of ocean acidification affecting reef fisheries, declines in dissolved oxygen and disruption of fish reproductive patterns. It also led to sea level rise which make ground water more saline, harming fresh water fisheries, aquaculture and limiting industrial and domestic water uses. For the fisheries, especially in Kerala, the unique but devastating tsunami of 2004 is a major indicator of climate change.



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- **Impacts of trawling:** Till the introduction of trawlers, fishing was done by those belonging to fishermen community. The fishing intensity by the trawlers affected the fish stocks in the inshore waters and it led to an overall decline in fish landings of the state. Traditional fishermen viewed that the depletion in landing was caused by the operation of trawl net. They demanded a total ban of these types of destructive gears at least during the monsoon period, which coincides with the spawning of many species of fishes and shrimps. The boat owners and the workers were fully against this view. These contradictions between the two groups led to clashes and created law and order problems in the Kerala coasts.
- **Over-crowding:** One of the main reasons for the poor quality of life and poor conditions of habitat of marine fishing community of Kerala is crowding of the whole community on a narrow strip of the coastline. As a result, there are 222 fishing villages in 590 km. and none of these villages is more than half km. wide from the sea front. In some districts like Trivandrum and Kollam they are hardly half km. wide. This is one of the reasons for during monsoon the sea may take away land and houses of fishermen.

Suggestions for improving the conditions of Fishermen

- In case of marketing and processing, the traditional fishermen are subjected to the dictates of the big players because there is no alternative arrangement to sell his catching. So there should be initiatives from the government to run appropriate marketing mechanisms like fish outlets, processing plants etc.
- There is an urgency to carry out sea friendly fishery practices to be adopted soon. This would maximize the conservation of the sea wealth potential at large.
- “Unscientific and irresponsible fishing” can be done away by educating the fishermen and urging them to have a meaningful approach towards the sea wealth.
- State should encourage small scale, selective, sustainable harvesting technologies to maintain employment opportunities within fishing communities.
- Government should pay their attention to recover socio economic condition of families affected by the unpredictable climate change.
- Government even arrange or provide a loan for the labourer fishermen or small boat owner to start the fishing activities individually.
- Closed fishing season from 15th June to 31st July made mandatory.
- Traders suggest that developing new and cost-effective technologies to develop this sector is the need of the hour and hence government has to initiate programs and schemes to support and develop marine ornamental fish trade in Kerala.

Conclusion

Kerala is considered as one of the leading states in terms of growth of marine fisheries over the years. At the same time, the coastal areas in the state have facing serious environmental challenges caused by development of coastal regions on one hand and climate change induced threats on the other. Lack of resources like ownership, access, technical knowledge, skill development, marketing, conservation etc. are the other problems faced by our fishermen. If the rich under exploited resources are utilized effectively, Kerala can brag the top position in total fish production and also contribute fruitfully towards economic development of our state.

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