



## Insights of Fisheries Science, Classification and Its Objectives

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### DESCRIPTION

Fisheries Science is the discipline concerned with managing and understanding fisheries. It utilizes limnology, oceanography, freshwater biology, marine biology, meteorology, conservation, ecology, population dynamics, economics, statistics, decision making, management, and a variety of other disciplines and It is a multidisciplinary science that provides a comprehensive picture of fisheries. In some cases, new disciplines are emerging, as is the case in bio economics and fisheries law. Because fisheries science is such a broad field, fisheries scientists often use methods from a wide range of disciplines. In recent decades, fish stocks have declined in many regions, raising concerns about the impact of intensive fishing on marine and freshwater biodiversity.

For the past 30 years, fisheries have emerged as the world's fastest growing food. Fishing and aquaculture Fishing is an important economic activity Agriculture (GDP 4.6%) and national economy (GDP 1.3%), contribution to livelihoods food security, job creation (11 million people), foreign exchange Income (Rs. 8364 crore). The aquaculture sector experienced spectacular events over the last 20 years production has increased, driven by technological developments, Increased demand for fish. The overarching challenges facing the fisheries sector are: At the same time, production and quality improvement of life of fishermen and farmers. This can only be achieved by addressing the problem under exploitation and low productivity in land waters, fisheries sustainability fisheries, huge post-harvest losses, poor quality and low added value, disorder domestic and protective global markets and low stocks of domestic fish consumption.

The primary goals of fisheries management are generally similar around the world. Policy documents such as the Common Fisheries Policy and the Magnuson-Stevens Fishery Conservation and Management Act frequently state this. However, at the local level, the key management objectives are frequently more detailed, characterised by both the overarching management structure and type of fisheries involved.

For example, the Norwegian government subsidizes small communities in the north to keep people in the area. One of the main economic activities is fishing. However, destroying this resource base through unsustainable fishing is not appropriate. That means sustaining communities by supporting infrastructure at taxpayer expense and managing fisheries sustainably.

Fisheries sciences are mainly consists of 4 types. They are

#### Inland fisheries

An inland fishery in India is the world's third largest fish producer after China and the second largest aquaculture country. India's Blue Revolution shows the importance of the fisheries and aquaculture sectors. The sector is considered to be the sector of the future and is poised to play a significant role in the Indian economy in the near future. In recent times, Indian fisheries have undergone a paradigm shift from marine to inland fisheries, with inland fisheries increasing from 36% in the mid-1980s to 70% in recent years, becoming an important part of fish production. In inland fisheries, the shift from catch-based to aquaculture-based fisheries has paved the way for a sustainable blue economy.

#### Marine fisheries

Marine fishing is related to breeding and catching fish in salt water. Fish are the most important component of the marine food web and provide food for marine mammals. Apart from its role in marine environment, fish also serves as a significant source of protein in human and animal diets, both the rural and urban population. Fisheries sector greatly contributes in providing livelihood to millions of people directly and indirectly, income generation and offer foreign exchange.

#### Coastal fisheries

Coastal fisheries, defined as all fisheries within the Exclusive Economic Zone (EEZ), provide food, nutrition and livelihoods, especially in developing countries. However, coastal ecosystems are under severe stress. Globally, nearly 30% of the world's

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estimated marine fish stocks are overfished. Most of the overfished fisheries are in developing coastal and island states. This threatens the livelihoods, food security and nutrition of many poor people in the population.

### Metahaline fisheries

The metahaline fisheries are the cultivation and capture of aquatic organisms in waters with high salinity (greater than 32

ppt) is called metahaline fishing. It is practiced in salt pans. *Artemia salina* is the main organism cultivated in metahaline aquaculture. *Artemia* is a crustacean that is used as a food organism.