

FISHERY DOCKET

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Abstract: Fishery, by and large, is very important in serving the need of protein diet requirement of humans and other organisms, they are integrated part of the food chain and food web and keep harmony in the ecosystem. Almost all religions have one of the other mythologies related to fish. They appeared on the planet even before the appearance of human beings. Many species must have been lost unidentified. Bycatch, climate change is a worrying problem in fisheries. 8 of June is World Oceans Day, the United Nations Day for celebrating the role of the oceans in our everyday life and the urgent need to protect the ocean and sustainably use marine resources. The 4th Sunday of every September is World Rivers Day a celebration of the world's waterways. World Fisheries Day, celebrated on November 21, is dedicated to highlighting the critical importance of healthy ocean ecosystems and ensuring sustainable stocks of fisheries in the world. The United Nations General Assembly Has Declared 2022, The International Year of Artisanal Fisheries and Aquaculture #IYAFA2022.

Introduction

Matsya, (Sanskrit: "Fish") is one of the 10 avatars (incarnations) of the Hindu god Vishnu. In this appearance, Vishnu saved the world from a great flood. Manu, the first man, caught a little fish that grew to a giant size. When the flood approached, Manu saved himself by tying his boat to the horn on the fish's head. ([www.britannica.com](http://www.britannica.com/topic/Matsya-Hinduism) › topic › Matsya-Hinduism Matsya | Hinduism | Britannica) Fishing for food is dated for the past 40,000 years ago, dating back to at least the Upper Palaeolithic period.

The sharks (class Chondrichthyes) first appeared in the Early Devonian about 400 million years ago, became quite prominent by the end of the Devonian, and are successful, successful, and clever species even today. The Latimeria or the coelacanth (living fossil) still exists in deep oceans even today and is a shy bottom dweller species.

Fisheries play a very important place in the economic structure of many countries says the history. The staple food of the coastal region population is fish in fresh or dried form or canned. The freshwater fishery plays a vital role in the economy and protein-rich food of the population living on banks of rivers or lakes, though the variety is less.

Fishery and Religion: The Greek word for fish is 'Ichthus', which is also an acronym for Jesus. The Greek, 'Iesous Christos THEou Uios Soter' translates in English too, 'Jesus Christ, Son of God, Saviour'.

Some Tibetans consider fish as the incarnation of the water deity. The water burial is a type of funeral practice in Tibet and fish perform the duty of disposing of the corpse-like the vulture in the sky burial, there is one more reason: fish don't have tongues, so cannot gossip. Tibetans consider Gossip a curse and reward gossip-free fish by not eating them. Only in places like Junba village Tibet, has fishery existed for generations.(2017 by Robson Cadore Tibetan Cuisine and Culinary Taboos).As an ancient Celtic symbol, fish (salmon, specifically) dealt with knowledge, wisdom, inspiration, and prophecy. Ancient Celts believed the salmon derived its wisdom from consuming the sacred hazel nuts from the well of knowledge (Segais). In Norse and ancient European cultures, the fish had symbolic meanings of adaptability, determination, and the flow of life. Ancient African myths talk of Mangala, the creator, planting seeds in the cosmic womb. From these seeds, two fish erupted and were set forth into the cosmos upon the waters of creation (Culture, Special Issues August 12, 2017, Noshir H. Dadrawala).

According to the Quran, the fish is a symbol of eternal life and also of knowledge. Jews and Muslims are instructed to only eat fish with scales, and not fish lacking scales.(<https://thefisheriesblog.com/2014/04/21/finding-fish-in-faith/>).Cyrus the Pharaoh of Egypt and ancient Egyptians used images of the tilapia fish as a symbol of regeneration, the great Egyptian kings wore headgear with a fish motif. At the ruins of an ancient Sasanian fire temple situated at Rae, near Tehran (Iran), one can see exquisite fish motifs adorning the temple walls. To date, Iranian Zoroastrians place a bowl of live goldfish on the Navroze table for good luck. In the Zoroastrian mystic lore Mahi – the fish can see the smallest piece of an object even in the dark. Parsis tickle their taste buds with Sagan ni Macchi (Culture, Special Issues August 12, 2017, Noshir H. Dadrawala)

Sushi is the official cuisine of Japan and an iconic representation of Japanese cuisine, eating puffer fish FUGU is another big pride and delicacy Fugu are recognized as poisonous fish around the world but are relished in Japan on the table,the Japanese eat 10,000 tons of fugu each year(www.healthline.com).

There is great demand for fish on the table as well as allied industries' fish trade has been increasing very rapidly past many decades. China is leading in aquaculture and seafood production followed in the second number by Indonesia, third and fourth India, and Vietnam respectively. However, in volume and value terms, China is the biggest seafood exporter, followed by Norway.

Geography Climate and fish:

There are over 34,000 recognized species of fish around the world, and they inhabit a wide range of watery habitats. (Matthew L. Miller, author of *Fishing Through the Apocalypse: An Angler's Adventures in the 21st Century*). Fisheries play significant social and nutritional roles in Africa, India, and Southeast Asia rather all those countries that either fresh or marine water resources, including the Arctic ocean the place where Eskimos dwell. The sector contributes to food and nutrition security and provides jobs, in particular for inland as well as coastal populations, which are often among the poorest and most vulnerable because their livelihood is dependent on the fisheries and related business. Uganda and the United Republic of Tanzania are the leading fishing countries in the African Great Lakes region, while Nigeria and Egypt, with their river fisheries, remain the main producers in Africa.

There are more than 150 kinds of natural fish in the Qinghai Tibet Plateau, and some great lakes are rich in fish resources, but these fish are not all suitable for consumption. In the Qinghai Tibet Plateau, *Schizothorax* has the largest species and number and is one of the few toxic freshwater fish in China. It is known that the eggs of most *Schizothorax* fish are toxic, and there is no effective antidote at present. This can be one reason Tibetan do not eat fish (Explore Tibet <https://www.exploretibet.com> »).

The edible fish in Tibetan areas are not rich and concentrated, which is not related to most Tibetan areas. Even in areas with many lakes and rivers, due to the slow growth rate of cold-water fish on the plateau, residents will not do fishing as a livelihood.

Oceans, seas, rivers, lakes, and estuaries are rich suppliers of fish, fishing also includes catching mollusks, cephalopods, crustaceans, and water creatures. The Bering Strait is a very important fishing ground in the world. The Biggest Problems Facing Fish in Our Oceans are Overfishing, Ocean Acidification, dead sea zone, Ghost Fishing nets, Commercial Whaling, Plastic,

Irresponsible Fish Farming, Habitat Destruction, ballast water carrying invasive species threatening native species. As the climate warms, millions of species are shifting poleward in a dramatic reorganization of life on earth (April 12, 2022 Source: Rutgers) Coral reefs are often described as the rainforests of the ocean. They host a high diversity of species and are very productive. (<https://www.sciencedaily.com/releases/2022/04/220404120459.htm/>).

Climate change and local threats, such as overfishing, have caused a stark decline in coral reefs worldwide (April 4, 2022 Source: University of Hawaii at Manoa written by Marcie Grabowski). Aral originally was the main fishing port, the Aral sea has now shrunk only high salinity tolerating fish can survive. The Aral Sea is considered an example of ecosystem collapse (Keith, DA (2013). "Scientific Foundations for an IUCN Red List of Ecosystems"). The Bombay duck, the catch has declined from the north coast of India. There can be a lot of varied reasons for this decline.

Inland Fisheries

The inland fishery is at threat due to the release of sewerage, and polluted water. Inland water fisheries are well seen in Coldwater fisheries and aquaculture, with high valued species like trout and mahseers in hill states like Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh are also being accorded high priority in India's R&D efforts. Assam an Indian state is endowed with vast fishery resources in the form of ponds, derelict water bodies, beels, reservoirs, and many such cover about 2.86 lakh hectares. In addition, the two major river systems viz. the Brahmaputra and the Barak covering about 4820 km along with 53 tributaries have formed the backbone of the state economy. Fish occupies an important place in the lives of the people of the State and fish farming has been one of the common activities in rural areas. More than 90% of the people of the state prefer fish in their meals leading to ever increasing demand for fish. Thus the Fishery Sector is considered an important economic activity. It plays a significant role in maintaining the natural cycle and hence sustaining the ecological value of the area. Similarly, Backwater in Kerala plays a vital role in the state economy. The Vembanad backwaters in Kerala are a tourism destination where foreign and Indian tourists cruise on houseboats. There is a decline in fish catch from the lake and the livelihoods of the fishing community are at stake, with women being the worst affected. There are more than one thousand houseboats, which far exceeds the carrying capacity of the lake. To protect the fish resources, the

traditional fishing community of Vembanad Lake, supported by research organizations, has started constructing fish sanctuaries in the lake, there is no trespassing in this area, and fish fingers are protected (K. Rajendran on 20 March 2018). Mozambique (*Oreochromis mossambicus*) and the Nile tilapia (*Oreochromis niloticus*) were introduced into India to boost food security. However, through both accident and intentional release, the species have established themselves through large sections of the country's waterways, making their way into biodiversity hotspots as well. The Mozambique Tilapia has made it to the list of “ One Hundred of the World's Worst Invasive Alien Species on the Global Invasive Species Database. Tilapias are known to alter ecosystems; they can adversely impact ecosystem services, causing a decline in native fish caught in commercial and recreational fisheries (Mongabay Series: Almost Famous Species by Aaron Savio Lobo on 15 October 2020).

Bay fishing (Inshore fishing)andOffshore fishery

Bay fishing is within thirty meters depth, "Bay Boats," average about 22 feet, and typically without a top. Bay Fishing offers anglers lots of options. The popular species that most anglers target inshore are tarpon, redfish, snook, and trout. Some other common fish that are caught inshore are cobia, shark, sheepshead, whiting, pompano, mackerel, permit, snapper, and grouper.

Offshore fishing is beyond 30 meters deep, it includes commercial fishing. wherever there is fishing, there is ‘bycatch’—the incidental capture of non-target species such as dolphins, marine turtles, and seabirds. Thousands of miles of nets and lines are set in the world's oceans each day. Sometimes nets are abandoned and they remain as ghost nets in waters threatening the species. Ocean fisheries in the West and Central Pacific account for 54% of the world's tuna catch, with 2.2 million tonnes caught per year. Tuna fisheries also catch many non-target species, known as bycatch. Bycatch of highly endangered marine turtle and shark species as well as that of juvenile tuna is common in the South Pacific. WWF South Pacific works to reduce bycatch by changing fishing practices. (WWF 15 November 2018) .The highest rates of incidental catch of non-target species are associated with tropical shrimp trawling.

The fisheries sector includes recreational, subsistence, and commercial fishing. Commercial fishing includes Scallops; prawns; crabs; squid; coastal fish, such as whiting and flathead; reef fish, such as coral trout; shelf and deep-water fish, such as sardines, ling, and blue-eye trevalla;

and oceanic tuna and billfish. Commercial fishing is essential in supporting the global livelihoods of nearly 60 million people who are directly employed in the fisheries and aquaculture sector, as well as ensuring food security for more than 3 billion people who rely on seafood as their primary source of protein. Aquaculture is the purposeful cultivation and subsequent harvesting of both freshwater and marine aquatic plants and animals. The pearl culture is one such business, cultured pearls resemble the real ones, and are a million-dollar business, The finest natural Basra pearls are not much found in the Persian, followed by Venezuela pearls and south sea ones. This loss is due to oil production as the main business in the Gulf region thereby the bed of pearl oysters was lost. The best variety of cultured pearls is Akoya pearls cultivated in salt waters of Japan.

Fish products: Over one billion people rely on fish as their primary source of animal protein. (WHO)fresh fish, fish eggs caviar, are sold in the market. However other products are Tatami iwashi, surimi, Ising glass, fish glue, fish oil, fish hydrolysate, fish sauce, and fish meal, Some other species of fish are also used to make fish leather, and this material is popular among luxury brands such as Prada, Dior, Fendi, and also emerging designers. Shoes made of salmon leather, a jacket made of perch leather, or a handbag made of wolffish or cod leather. Once tanned, the leather is non-odorous and is stronger than other, traditional, leathers of similar thickness. ("Technical information about fish leather". Archived from the original on 2012-05-11. Retrieved 2012-07-04.) Sea horse, starfish, sea urchins, and sea cucumber are used in traditional Chinese medicine.

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