



INDIAN LEGAL REGIME TOWARDS SUSTAINABLE FISHERIES: A CRITICAL ANALYSIS

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1. Introduction

There has been significant increase in the production of the Fish production in India in a decade according to latest statistics available, the data provides that, there is increase of 3.61 million tonnes of fish production since 2001 to 2011, where 5.29 is contributed by the inland fish production and 3.25 million from the marine fish production. These statistics make India second largest producer of fish in the world. 14 million people depend upon the fishing Industry directly and indirectly.¹

India has 8,129 km of coastline and 2.02 million square kilometre and with such a vast area government has to comes up with various legislation in order to regulate fishing in different states of India because of the various species available in different parts of India one, standard legislation will not

serve the purpose of saving the ecosystem available below the water, different species requires different form of regulation to be preserved before they enter into endangered list.² The early attempt to regulate the fishing industry was done in the year of 1873 when the colonial government's attention was drawn towards the large scale slaughter of fishes and other living resources was prevalent. It resulted in the enactment of Indian Fisheries Act in the year of 1897.³ The important changes introduced by the act was it prohibited the use of destructive methods of fishing in inland waters and coastal areas by using dynamite and other substances like poison of water through noxious substances. The legislation empowered the provincial government existed during that period to legislate on the fishing practices through regulating the size of nets, seasons for fishing and it empowered the local government to impose ban during certain seasons in order to help the restoration of population of fish stocks.⁴

2. Marine Fishing Regulation in India

Gujarat, Maharashtra, Karnataka, Goa and Kerala are the marine states on the western side bordering Arabian sea. Tamil Nadu, Andhra Pradesh, Odisha and West Bengal bordering the Bay of Bengal and Lakshadweep, Pondicherry and Andaman and Nicobar Islands are

¹ Aaron Savio Lobo, The Bycatch Problem: Effects of Commercial Fisheries on Non-Target Species in India, *Resonance* 60, 61 (2007)

² P.P. Manojkumar and P.P. Pavithran, Bycatch and Discards in Commercial Trawl Fisheries of Malabar Region, 62 (2012)

³ Indian Fisheries Act, 1897, No.4, Acts of Parliament, 1897

⁴ V. Mahesh et al., Occurrence of Low Value Bycatch in Trawl Fisheries off Karnataka, India 54 *J Fish. Tech.* 227, 231 (2017).



located in the Arabian Sea and Bay of Bengal respectively.

There are more than 53000, mechanised boats varying the size from 9 meters to 10 meters and these boats are mainly involved in bottom trawling, purse seining and gill netting. During 1970 introduction of purse seining into the coastal water of India led to the wide spread exploitation of marine resources. The Central Government formed a committee in the year of 1976 for examining the delimitation of the areas according to the types of Boats. Also Central Board of Fisheries held meeting in the same year to come up with the various safeguard measures to save the marine ecosystem. In 1978 the committee formed in 1976 submitted it's model fishing regulation and provided the same to various coastal states.

MFRA(Marine Fishing Regulation Acts) seeks to regulate the fishing practices in the coastal states by adopting measures such as reducing the mesh size of the net in order to save the juvenile fishes from the catch.⁵ The regulation extend to the categorisation of the fish according to the size of the fish therefore if a fish is too small it is prohibited from fishing, also there is ban on usage of certain usage of the gear in order to prevent the certain species to get caught, the change in fishing gear according to the species protect them from being getting caught, as different species react differently to the gears so they can also

escape from the gear without harming the harvest or catch of the fishermen.⁶

Principle of equality is being also reflected in the legislation where certain area of fishing zone is reserved for the traditional fishermen, as big fishing industry exploit the marine resources to the extent and beyond MSY where the small fishermen cannot exploit any resources and manage their livelihood. It is a good management measure to ensure the prevention of overexploitation of the resources.

Marine fisheries Act was enacted by Kerala and Goa, they were the first state to enact the marine fisheries regulation and followed by Maharashtra, Orissa, Tamil Nadu, Karnataka, West Bengal, Andhra Pradesh, Lakshadweep, Gujarat, and Andaman and Nicobar Island. Gujarat and Nicobar Island were the last states and Union Territories to enact the marine legislation. There was uniform ban on 9th March 2011 imposed by the Department of Animal Husbandry, Dairy and Fisheries on EEZs however it was allowed on the territorial water. This was done in order to ensure the conservation and management of resources and it's a measure to maintain the population of the fish stock. This decision is taken before the South- west monsoon season and properly informed to the fishermen by the Department. Uniform seasonal ban on either side of the EEZs by the Ministry is one of the important measure adopted clearly adhere to International principle of conservation

⁵ John Kurien, Entry of Big Business into Fishing: Its Impact on Fish Economy, Economic and Political Weekly, Jan. 1978, at 13.

⁶ B. Bhatl & D. Pauly, Fishing Down Marine Food Webs and Spatial Expansion of Coastal Fisheries in India, 1950-2000 26 – 27, (2008).



and management of resources of fish stocks. Further the state has in the circumstances have followed the precautionary approach in order to not exploit the resources beyond the Limits.

(a) The Maritime Zones of India(Regulation of Fishing by Foreign Vessels) Act,1981

“In 1981 the Maritime Zones of India(Regulation of Fishing by Foreign Vessels) Act,1981 was enacted to regulate the activities of foreign fishing in Indian Maritime Zone. This legislation provides support to the bilateral and multilateral fishing agreements that take place between various nations and India.”⁷ Section 4 of the legislation provides license to the foreign vessels for the purpose of fishing, conducting research, etc.⁸ Section 4 prohibits Indian citizens to fish using foreign vessels, if Foreign vessels are found of violating provision mentioned under section 3 of the Legislation within the territorial water of India that extend to twelve nautical miles from the sea shore it attracts punishment of imprisonment up to 3 years and fine of rupees fifteen lakhs rupee.⁹ Further if the contravention is done in the Exclusive Economic Zone by the foreign vessels the punishment extend to ten lakhs of fine. Further if

the conditions provided under the license is being violated the punishment extend up to ten lakhs rupees.¹⁰

Section 15 seeks for the penalty for the obstruction in the duty performed by any authorised officers, the act appoints officers to check the license of the ship, work permit, checking log book and other type of documents, checking of type of fish, if the fishing gear¹¹ is according to the legislation and appropriate mesh size, the officer have quasi-judicial power where appropriate reason is being provided by the fishermen to justify the violation of the provisions.¹² If the reason provided is not appropriate the punishment extend up to one year of punishment and fine of fifty thousand rupees/- or both.

(b) Western coastal States and Precautionary Principles

The state of Gujarat in coastal area have reserved 9 Kilometres to the local fishermen and mechanised boats are allowed beyond the limit of nine kilometres, the regularisation of fishing gear is also done by imposing ban on the usage of square fishing net below 40MM by the trawlers, the same was with the gill nets the minimum size was

⁷ The Maritime Zones of India(Regulation of Fishing by Foreign Vessels) Act,1981, No. 42, 1981

⁸ Section 4, The Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act,1981, No. 42, 1981

⁹ Section 3, The Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act,1981, No. 42, 1981

¹⁰ Section 10, The Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act,1981, No. 42, 1981

¹¹ Section 7, The Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act,1981, No. 42, 1981

¹² Section 15, The Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act,1981, No. 42, 1981



limited to 150MM.¹³ this limits was imposed in order to save the juvenile fishes and exclude non-targeted species which is basically bycatch. One need to understand the importance of non-targeted species, they form one of the most important part of the marine ecosystem. The targeted species feed upon the non-targeted species and therefore the state of Gujarat has clearly adhered to the international precautionary principles, along with the precautionary principles the states has considered well about the bycatch and it's prevention too. The size of net is one of the most important method where the juvenile fish or non-targeted species are being left out during the catch by the right amount of whole in the net.¹⁴

The precautionary principles is being followed by almost every states in India however state of Maharashtra tried to cover every aspect to curb the problem of bycatch, there is distinction between mechanised trawler and traditional fishing boats.¹⁵ There exist a blanket ban on the fishing vessels from 15th June to 31st July, further mechanised trawl net is being prohibited from 5 fathoms to 10 fathoms in certain areas of the seas.¹⁶ The operation of trawl gear by fishing vessel is prohibited from a timespan of 6:00 PM to 6:00 AM. More powerful fishing vessel

having engines capacity of more than 6 cylinder engines is prohibited within 22 of seashore in order to avoid overexploitation of resources of fish stocks by the big fishing vessels. One of the greatest reason for the exploitation of fishing stocks and bycatch was the use of purse-seine because it does not discriminate and catch every kind of species and of every size.¹⁷ Therefore fishing vessel within territorial water of Greater Mumbai, and adjacent district are prohibited from practising purse-seine. One of the best management practise to regularise the size of the gear which the government of Maharashtra has done, trawler gear having mesh size less then 35 mm will be prohibited from use within the territorial water.¹⁸ Further in the sensitive are of Ratnagiri where exist variety of species the size of the mesh is reduced to 25mm to prevent bycatch and it's exploitation by big fishing vessels.¹⁹

In the state of Kerala the coastal area is being divided into three zones where fishing with the country made vessels and traditional fishing boat is allowed in the first zone of Kerala coastal area which extend up to 78km from Kollencode to Paravoor small mechanised boat is allowed to fish

13 Section 7, The Gujarat Fisheries Act, 2003, no. 8, 2003

14 section 6, The Gujarat Fisheries Act, 2003, No. 8, 2003

15 Section 4, Maharashtra Marine Fishing Regulation Act, 1981, No. 54, 1981

16 Section 5, Maharashtra Marine Fishing Regulation Act, 1981, No. 54, 1981

17 Section 25, Maharashtra Marine Fishing Regulation Act, 1981, No. 54, 1981

18 Section 24, Maharashtra Marine Fishing Regulation Act, 1981, No. 54, 1981

19 V. Mahesh et al., Occurrence of Low Value Bycatch in Trawl Fisheries off Karnataka, India 54 J Fish. Tech. 227, 231 (2017).



between 40m to 70m dept of water.²⁰ And in the second zone of coastal line which extend from Manjeshwar to Paravoor the fishing by the mechanised small boat is allowed to fish between 20m to 40m in that zone.²¹

(c) Eastern coastal states and precautionary principles

In the state of Tamil Nadu area up to 5 km from the seashore is reserved for the traditional fishing vessel and beyond that mechanised boat is allowed to fish.²² Fishing in the basin area is prohibited till hundred meters of depth. There is regularisation of the size of net gill should have minimum size of 25mm, shrimp trawl should have minimum size of 27 mm of the net and fish trawl should have minimum 40 mm size of the net size. The local authorities decide on the number of fishing vessels to be permitted to fish during a particular time period in certain area therefore in order to ensure check of over exploitation of fish stock.²³

In the state of Andhra Pradesh the limitation is extended up to eight Kilometres of the mechanised fishing vessel and reserved for traditional fishing vessels. Further the mechanised

vessel beyond 15 meters and capacity of 25 tons is permitted to operate beyond 15 Km from the Coastal area and the minimum size of nets is 15mm.²⁴ One of the most important preventive measure to save the Turtle is to include turtle excluder device which prevent the turtle to get caught by the shrimp trawlers, it attracts heavy penalty if the shrimp trawler does not use TED which extend to a fine of rupee 2500/- and confiscation of the entire catch.²⁵ It is one of the mechanised measures which prevent exploitation of non-targeted species. The state of Odisha have similar regulation however the fishing vessel of 15 meters shall operate beyond 10 kilo meter of sea shore.²⁶

In the state of West Bengal mechanised boats with 30 or more horsepower engine is not allowed to catch within 18 kilo meters of the territorial waters it is reserved for the traditional fishing boats and mechanised boats with power less then 30 horse power.²⁷ Here also the size of the net is being regularised gill net less than the size of 25mm is not allowed to be used whereas the size of dol net is 37 mm and purse seine size is limited to 25mm along with it turtle excluding device is required to be used

20 Section 4, The Kerala Marine Fishing Regulation Act, 1980, No. 10, 1981

21 Section 5, The Kerala Marine Fishing Regulation Act, 1980, No. 10, 1981

22 Section 5, Tamil Nadu Marine Fishing Regulation Act, 1983, No. 8, 1983

23 Section 4, Tamil Nadu Marine Fishing Regulation Act, 1983, No. 8, 1983

24 Section 4, The Andhra Pradesh Marine Fishing (Regulation) Act, 1995, No.9, 1995

25 Olive Ridley Turtle, World Wide Fund for Nature-India,

https://www.wwfindia.org/about_wwf/priority_species/lesser_known_species/olive_ridley_turtle/. Wildlife Protection Act, No. 53, Act of Parliament, Schedule 1, 1972 (India).

26 P.R. Behera et al., Species Composition and Temporal Variation of Trawl By-catch in fishing grounds of Northern Andhra Pradesh, 46 Ind. J Geo Mar Sci. 2037, 2039 (2017).

27 Section 4, The West Bengal Marine Fishing Regulation Act, 1993, no. 9, 1993



by every mechanised boats in order to save turtle from bycatch.²⁸

(d) Union territories and precautionary principles

In Andaman and Nicobar Islands vessels up to thirty horsepower are allowed to operate up to 10 Km and beyond thirty kilometres mechanised boats more than thirty power are allowed, there is blanket ban on the trawlers and vessels involved in shark fishing between 15 April to 31st May every year because of the breeding period of the sharks. Further from 1st May to 30th September there is complete ban on fishing sea shells. And there is regularisation of the net size as well the minimum size for the fishing net is 20mm, shore seines and dragnets should have mesh size of minimum 25mm. Similarly Lakshadweep has regularised the mesh size of net minimum to 20 mm and 50 mm for the gill nets. The size of the net is being regularised because of the precautionary principles to stop over exploitation of the resources and prevent bycatch through saving and helping juvenile fish to escape from the nets. Turtle excluding device is standard device to be used by every mechanised boats fishing in the EEZs, if mechanised does not use TED in attracts fine of up to 2500 rupee and confiscation of the entire catch, repetitive offence may lead to

cancellation of the license of the mechanised boats.

3. National policy and recommendation of committees on regulation of fisheries

“The coastal stretch affected by the tidal action in the landward up to 500 meters from the high tide lines (HTL) and the land between the Low-tide line (LTL) and HTL is known as CRZ (Central Regulation Zone)”, the Environment (Protection) Act, 1986 imposes ban of setting up industrial area. CRZ are further divided into four zone. CRZ I is the ecologically sensitive areas which includes sanctuaries, reserved forests, mangroves, coral reefs area which very close to breeding area of certain fish species or exact ground of breeding, it also includes the area between LTL and HTL. One can clearly come across the precautionary principle adopted by the government when it comes to maintain the population of Fish stocks, by prohibiting the interference by the fishermen in that area. The measure is somewhere more effective when it comes to conservation and management of marine resources.²⁹

In 1991 Government of India came up with New Deep Sea Fishing Policy which was a kind of economic reform programme in which government sought to create several joint ventures with the foreign vessels by providing license and rights to exploit the marine

²⁸ N.R. Chattopadhyay, Study On the By Catch Loss in Two Coastal Districts of West Bengal, India, *Int. J Marine Bio Res* 1, 7 (2017).

²⁹ A.S. Lobo, *Managing Fisheries in an Ocean of By-catch*, Coastal Ecology and Marine Resources Centre, The Energy and Resources Institute, Goa, 2012, at 1, 8.



resources available in the Exclusive Economic zone, the policy faced strong dissent from the artisanal fishermen, the government withdrew the joint ventures as it would have severely affected the marine resources by depleting it beyond irrecoverable level. Biological Diversity Act, 2002 was enacted to protect the biological diversity in India by conserving before get endangered, the principle used is the fair and equitable sharing of the biological resources, also by giving back to the environment.³⁰ The provision of the legislation have power to declare a fish stock threatened if it is being over exploited.

In 1995 the Government of India constituted Murari Committee having 41 members from different discipline such as bureaucrats, experts, activists and members from the fishing communities like Associations and NGOs and after detailed survey and research gave recommendations, the members were divided into 5 and they conducted in all the states in India. The committee suggested the central government to cancel all the licenses giving to foreign vessels for fishing in High seas, committee gave several recommendations such as non-renewal or non-extension of the charter, lease or joint venture of the foreign fishing vessels. Prevent pollution of the sea by the fishing vessels, ban of trawl fishing in the season of monsoon and prevention of exploitation of the resources by the mechanised boats

below 20 meters of the of the sea from the seashore.

(a) National policy on marine fisheries 2017

Government of India in 2017 came up with National Policy on Marine Fisheries with the main objective of Blue Revolution under the scheme of 'Blue Growth Initiative' by sustainable measures. Policy focuses on the sustainable management of marine and aquatic resources at the same time focusing on standards of living of fishermen. The policy "while keeping sustainability of the resources at the core of all actions, the policy framework tries to meet the National, social and economic goals, livelihood sustainability and socio-economic upliftment of the fisher community and is intended to guide the coordination and management of marine fisheries in the country during the next ten year"³¹.

4. Conclusion

Union and state have divided matters of fisheries according to the territorial jurisdictions of the nation under Article 246 of the Constitution of India, seventh schedule in the union list the central government has power to legislate on the matters of "fishing and fisheries beyond territorial waters" that is beyond twelve nautical miles from the coastline under entry 57.³² Therefore the central government can legislate beyond the 12 nautical mile in

³⁰ Dineshababu et al., An Appraisal of Trawl Fisheries of India with Special Reference on the Changing Trends in Bycatch Utilization, 55 J. Mar. Biol. Ass. India at 69, 75 (2013).

³¹ National policy on marine fisheries 2017, Ministry of agriculture and farmers welfare, 2017, dadf.gov.in

³² Article 246, seventh schedule, Union list, entry 57, The constitution of India, 1950



entire India therefore it important for the central government to decentralise the power so that other stakeholders of fisheries like state can also participate along with the local authority to achieve the objective of government in the High Seas.

It is under the central government to prohibit the big mechanised boats to arbitrarily exploit the Indian marine resources through the practice of bottom trawling and other unethical method of fishing which promote bycatch.

Within twelve nautical miles the power rests with the state to legislate on the matter of fisheries rests with the state government under State list entry 21³³. Therefore the matter related to inland fisheries and till the territorial jurisdiction of twelve nautical miles from the coastal lines is with the state government. It poses one of the most difficult problem as the subject matter of the marine resources legislation is on constant move like fish and other species. It is also very difficult to control the mechanised board which obtains license from one state authority and might have chances to operate in the territorial water of other state. The administrative authority find it very difficult to implement the statue as the authority cannot go beyond the jurisdiction and confiscate the catch of mechanised boat licensed by other state. This issue need to be addressed by the co-operation of both the state government and central government

when it comes to the formulation of marine resource management policy.

The comparison of the Indian legislation with the International task is very difficult because of the various factors that are involved such as fishing culture, information capacity of the nation, structure of the government, etc. However due to the attitude of the people that they have immense faith in the work the which they do, they also worship their source livelihood hence it is very easy to identify the attitude of preservation in the fishermen as they worship and find life in rivers, seas and ocean. The researcher therefore finds this attitude as one of the factor for the conservation of marine resources better than other nations.

International legal regime lacks in many fronts or factors when it comes to the conservation of marine resource management. Being second biggest fishing producer in the world, the demand is heavily met by the Inland water fishing in the form of aquaculture, which is more safer, reliable, cheaper and profitable compared to the conventional fishing methods. India with the time have shifted the fishing pressure to the aquaculture rather than on the mechanised boats which has helped in order to reduce the bycatch.

Regulation of fishing gear is being not explicitly mentioned in the International Fishing treaties and convention but however India has identified several fishing gear which

³³ Article 246, seventh schedule, State list, entry 21, The Constitution of India, 1950



disturb the marine ecosystem, results in heavy amount of bycatch and prohibited on the usage of such gear. Prohibition is not arbitrary as it is being imposed by the local administrative authority after due deliberation. Further the administrative authority also prohibits fishing during breeding seasons which helps to maintain the balance and conserve the fish stock population.

