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DEVELOPMENT OF POLICIES AND LEGAL FRAMEWORK ON FISHERIES MANAGEMENT IN INDIA

Dr.I.Sundar¹

ABSTRACT

This paper deals with development of fisheries management over a period of time in _ India. It outlines the central government policies and state government policies towards fisheries development in India. This paper makes a special note on objectives and fisheries development programs implemented in India from the first five year plan period to the twelth five year plan period. This paper points out the legal framework on fisheries management in India. This paper concludes with some interesting findings.

KEYWORDS: fisheries management, fisheries, employment, foreign exchange, resources

INTRODUCTION

The waters along the Indian coast and offshore to the limits of the Indian EXCLUSIVE ECONOMIC ZONE are home to a huge biodiversity. As per the report by Pillai and Pillai (2000) as many as 500 pelagic and demersal fish species contribute to the multi-species, multi-sector fisheries and the average contribution of these two groups to the overall catches for 1950-2005 are 53% and 47%, respectively. There also exist species specific fisheries, for example, for Indian oil sardine (Sardinella longiceps), Indian mackerel (Rastrelliger kanagurta) and Bombay duck (Harpadon nehereus) and yet the bycatch of these fisheries can be very significant. Few groups

dominate the total catch and based on the average for 1950-2005, the clupeoids 29 per cent; including the Indian oil sardine), crustaceans 16 per cent; including prawns) and mackerel 6 per cent; including Indian mackerel Rastrelliger kanagurta)jointly contributed 51 per cent of total Indian catches. It is evident from the work of Bhathal (2005) that Indian oil sardine has contributed significantly to the catches over the years, the population and hence catch of this fish fluctuates strongly, and so does its contribution to the total catch of India, which varied between 1% and 34%.

¹Associate Professor and Economics Wing Head, Directorate of Distance Education, Annamalai University, Annamalai Nagar, Tamil Nadu, India.

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It is evident from the works of Bensam (2000); Pillai and Pillai (2000); Harper et al. (2011) that major pelagic groups reported in Indian catch statistics are clupeoids such as wolf herring Chirocentrus dorab, Indian oil sardine Sardinella longiceps, hilsa shad Tenualosa ilisha, anchovies Anchoviella spp. and Thrissocles spp., Bombay duck Harpadon nehereus, ribbon fishes, carangids, i.e., jacks and their relatives; including horse mackerel, scads, pomfrets, i.e., black Apolectus niger silver Pampus argenteus and Chinese pomfret Pampus chinensis, Indian mackerel Rastrelliger kanagurta, seer fishes Scomberomorus commersoni, S. guttatus and S. lineolatus, and various tuna species. Some pelagic species enjoy wide geographical distribution, while others, such as shads and Bombay duck have restricted distributions.

It is evident from the works of Bensam (2000) and Pillai and Pillai (2000) that major demersal resources contributing to Indian catches are elasmobranchs species relating to sharks, skates, and rays and yields, eels, catfishes, lizard fishes, perches species of rock cods, snappers, and breams, goatfishes, threadfins, croakers, silverbellies (Leiognathus spp., Gazza spp.), big jawed jumper (Lactarius lactarius), flatfishes (halibut, flounders, soles), crustaceans (penaeid and other prawns, lobsters, crabs, stomatopods), molluscs, and cephalopods.

POLICIES AND LEGAL FRAMEWORK ON FISHERIES MANAGEMENT

The Indian Constitution has provisions to guide the policy-making process and to define the functions of different levels of the government, i.e., between the states, UTs and the Union. Salim and Narayanakumar (2012) cited that the Seventh Schedule of the Constitution of India specifies subjects that are on the Union List, the State List and the Concurrent List. Fisheries within the territorial waters (12 nautical miles from shore) are subjected to state jurisdiction, while the waters beyond this limit but within the exclusive economic zone fall under the purview of the central government. As per the report by Somvanshi (2001) and Yadav (2001) both the central and state governments play a vital role in the development, management, conservation, and monitoring of India's fisheries. The central government, however, is also responsible for surveying and assessing fisheries resources, research, and training and for providing financial assistance to the states and UTs for implementation of Central Sector and Centrally Sponsored Schemes. In addition, it also has an advisory role, for example, the Marine Fishing Regulation Act (MFRA) was adapted by all the maritime states from a bill that the union government had prepared and circulated in 1979.

There is no distinct fisheries ministry or department at the national level, and the responsibility for the administration of fisheries lies with the Ministry of Agriculture, i.e., with the Department of Animal Husbandry and Dairying, or department of animal husbandry and dairying, which was recently renamed Department of Animal Husbandry and Dairying and Fisheries, or -department of animal husbandry and dairying under the Indian Council for Agricultural Research, or ICAR. Furthermore, the responsibility for fisheries and the marine habitat is spread over several agencies and ministries at the Central viz. Ministry of Agriculture, Commerce and Industry, Environment and Forests, Food Processing Industries, and Defence and State viz. Department of Fisheries, Forests, and Ports) levels.

CENTRAL GOVERNMENT POLICIES

There are two key policy documents which reveal central policy on fisheries: the Five Year Plans developed by the Planning Commission, and the Central Marine Fishing Policy (2004) developed by the Ministry of Agriculture. Over time, several other policies and guidelines relating to trade policy, deep sea policy were announced in response to changing circumstances in the fisheries sector. The policy shift in 1990s affected the agriculture sector, including fisheries indirectly through the devaluation of exchange rates, the liberalisation of external trade, and less protection to industry. According to Byers (1998) and Johnson (2002) shift happened because India nearly defaulted on a loan from the International Monetary Fund (IMF) in

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1991 due to the severity of the balance-ofpayments deficit that it facedsince the mid-1970s. Its only escape was to agree to a liberalization strategy drawn up by the IMF, which included the phased reduction of import duties, reduced government participation, and reduced reliance on subsidies.

Moreover, by the end of 1991, it was seriously realized that the marine fisheries were reaching their maximum catches in the inshore areas and had, indeed, overexploited various fishing grounds, and that therefore, no substantial catch increase could be expected. As per the report by ICAR (1998) and Johnson (2002) the emphasis of fisheries development shifted towards the expansion of the inland sector and aquaculture, as well as to offshore and deep-sea fisheries. This led to the announcement of a Deep Sea Fishing Policy in 1991 as a part of the economic reforms programme.

The liberalisation of the Indian economy in the 1990s coincided with the establishment of the World Trade Organisation (WTO), through which India, one of the WTO's influential members, became an important signatory to the various trade agreements. According to Salagrama (2004), the policies' focus was to stabilize India's economic performance by guiding the domestic economy, and at the same time, ensuring that all the processes were in line with global trade agreements.

FIVE YEAR PLANS

Until 2004, in the absence of a unified comprehensive policy, the Planning Commission via the successive Five Year Plans of India formulated broad policies, which set out strategies and objectives for the fisheries sector. An overview of these Five Year Plans reveals that, with time, the priorities of the central government gradually shifted from providing fish as a protein supply to the poor (First Five Year Plan) towards increasing foreign exchange reserves (Ninth Five Year Plan), and recently, the need for conservation and management is explicitly recognized (Tenth Five Year Plan-Twelfth Five Year Plan). It is evident from the reports of GOI (1951), (1956), (1961), (1969), (1974), (1980), (1985), (1992), (1997), (2002), (2006), (2011) that the main objectives of fishery development policies through these different plans have been to: (1) increase fish supply and promote self-sufficiency; (2) accelerate economic growth and generate employment; (3) increase fleet modernization and foster transition from inshore towards offshore (deep sea) fisheries; (4) improve the socioeconomic conditions of fishers; (5) expand the export of marine products; (6) strengthen the network of research and educational institutions meant to support fisheries; (7) improve infrastructure and post-harvest operations; (8) increase the per capita availability and consumption of fish; (9) adopt an integrated approach to fisheries and aquaculture; and (10) ensure sustainability and maintain ecological integrity and biodiversity. It will be noted that several of these goals towards increasing local fish supply and exports are, to a large extent, mutually incompatible.

Until recently, fish had been treated as an agricultural commodity in India and was guided by the same goals as agriculture: increasing supply, product diversification, employment, and foreign exchange generation. However, this started to change as the central government promulgated a Comprehensive Marine Fishery Policy in 2004 in which, along with other elements, ecological sustainability was emphasized.

COMPREHENSIVE MARINE FISHING POLICY - 2004

The Comprehensive Marine Fishing Policy was originally drawn up in 2000 and adopted in 2004. The 2004 CMFP consists of the following components: (1) ensuring social and economic equity; (2) optimal use of fishery resources; (3) environmental protection; (4) preservation and sustainability; (5) infrastructure development; (6) strict fisheries management system; (7) an improved regulatory and Monitoring, Control, Surveillance (MCS) systems; and (8) fisheries development in the UTs of Lakshadweep and Andaman and Nicobar Islands.

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Plan period Duration Main objectives and major developments during a Plan period.				
Plan period		Main objectives and developments		
I Eine menselen	1051 1054	Increase fish catch by introduction of mechanized/motorized boats;		
I. Five year plan	1951-1956	Improve fisheries statistics, ground and training facilities; Initiate the		
		charting for deep sea fishing grounds.		
		Introduction of new vessels and gears (expansion of existing		
II. Five year plan	1956-1961	initiatives); Improve infrastructure for preservation, processing,		
у · г ····		storage, transportation;		
		Set up multipurpose co-operative societies for well being of fishers.		
	1961-1966	Improve equipment and designs of mechanized fishing vessels;		
III. Five year plan		Adequate equipments and facilities for preserving fish and their marketing. Development of ficherics education and research		
		marketing; Development of fisheries education and research		
Annual Dla	1066 1069	institutes; Improve condition of fishers and focus on export trade.		
Annual Plan	1966-1968	Encourage export trade.		
		Expansion of export trade; Initiation of deep sea fishing (import of travelors) and their local construction. Construction of fishing		
IV. Five year plan	1969-1974	trawlers) and their local construction; Construction of fishing		
-		harbours at major and minor ports; Intensification of exploratory		
		fishery surveys.		
V Eine neer aler	1074 1070	Declaration of EXCLUSIVE ECONOMIC ZONE (1976; came into force in 1977); Scheme of chartering of foreign fishing vessels (1977);		
V. Five year plan	1974-1979	Development of fishing harbours.		
Annual Plan	1979			
Annual Fläll	19/9	Diversification of fishery products. Motorisation of artisanal crafts and exploratory surveys in offshore		
		Motorisation of artisanal crafts and exploratory surveys in offshore grounds; Maritime Zone of India Act, 1981 to regulate foreign fishing		
VI. Five year plan	1980-1985			
_		vessels; Encouraged deep-sea fishing via licensing, chartering/ joint venture schemes.		
		Revised chartering (Deep Sea) policy (1986; announced in June		
VII. Five year plan	1985-1989	1987); Development of post-harvest technologies		
Annual Plan	1990	Further development of deep-sea fishing		
rinnuai f Iall	1770	Newer Deep Sea Policy, 1991; Substantial growth in motorized		
Annual Plan	1991	artisanal fleet of ring seiners.		
		Development of coastal aquaculture; Substantial growth in		
VIII. Five year plan	1992-1996	motorized artisanal fleet of ring seiners; Export trade changes from a		
viin i ive year piali	1774-1770	resource-based to food engineering industry.		
		Increase fish production (aquaculture and offshore fisheries) and		
IX. Five year plan	1997-2002	further diversify fisheries and fishery products; Onset of multiday		
year plan	1777 2002	fishing and strengthen research activities.		
		Enhance fish production from aquaculture, marine and inland		
		fisheries; Practise responsible and sustainable fisheries and		
		aquaculture; Encourage equitable participation; improve		
X. Five year plan	2002-2007	socioeconomic status of fishers; Central Marine Fishing Policy		
- Jour Plan		(2004);		
		Expansion of oceanic fisheries, conversion of shrimp trawlers to tuna		
		long liners.		
	2007 2012	Increase fish production, focus on unexplored potentials (island		
VI [: '		fisheries); Maintain ecosystem health, conserve aquatic resources		
XI. Five year plan	2007-2012	and genetic diversity; Improve facilities for fish landing, handling		
		and marketing; Conversion of shrimp trawlers to tuna long liners.		
		Enhance fish production with focus on sustainable development;		
VII PL	0040 004-	Improve management of fisheries and encourage optimal		
XII. Five year plan	2012-2017	exploitation; Maximize net economic returns and expand export		
		trade.		
<u> </u>	4			

Table 1 Five Year Plans of India developed and executed by the Planning Commission of India. It details the primary objectives and major developments during a Plan period.

Sources: Reports of First five year plan to twelfth five year plan, planning commission, government of India

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It also emphasizes that the principle of the Code of Conduct for Responsible Fishing should be incorporated into every policy formulation. Conduct for Responsible Fishing provides ample guidelines for the management of fisheries and has been useful for the central government to emphasize and include sustainability in this policy. Earlier, the code was translated into different languages and was widespread in the maritime states of India, as a self-help guide, but implementation was not easy given the involvement of multiple stakeholders with differing viewpoints. In this policy, the need to reform the legal framework was identified, and regional

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consultations were held to discuss how to make this policy operational. Three key objectives of this policy are (1) "to augment marine fish production of the country up to the sustainable level in a responsible manner so as to boost export of sea food from the country and also to increase per capita fish protein intake of the masses; (2) to ensure socio-economic security of the artisanal fishermen whose livelihood solely depends on this vocation; and (3) to ensure sustainable development of marine fisheries with due concern for ecological integrity and biodiversity".

Further, this policy advocates protection, consideration and encouragement of subsistencelevel fishers and technology transfer to small-scale sectors, for instance, the motorisation of about 50% of traditional craft and infrastructure support to the industrial sector. The government has brought traditional and coastal fishers, those existing on subsistence and small-scale fishing, together with stakeholders in the deep-sea sector for harmonized development of marine fisheries. This current focus on collective and harmonized expansion is a new development, as there had been a disconnect between different sectors. Mostly, the industrial sector received special attention often based on political connections for its further development and expansion.

DEEP SEA FISHING POLICY

The Union Government made several attempts to encourage joint ventures in order to promote deep-sea fishing after declaration of its exclusive economic zone in 1976; these, unfortunately, were futile. It is observed from the report of Rao (2009) that the first deep-sea policy was announced in 1977, providing for chartering arrangements with foreign operators. Subsequently, a newer Deep Sea Fishing Policy (DSFP) was developed in 1986, and a revised version was announced on March 1991, as a part of the economic reforms programme. Atookaren (1991) and Das (1993) report that the policy involved three schemes, i.e., (1) leasing of foreign fishing vessels to operate in the Indian exclusive economic zone beyond 12 nautical miles; (2) engaging foreign fishing vessels for test fishing; and (3) forming

joint ventures between Indian and foreign companies on a 49:51 equity basis in deep-sea fishing, processing and marketing. The provision of transhipment at sea of catch was included in the DSFP of 1991 because of requests by purse seine owners (mainly targeting tuna) for a waiver from the requirement to report back to base ports before export. They argued that it would involve avoidable fuel expenditures and would make such projects more economically viable. Das 1993 noted that as a result, to encourage tuna purse seining operations in India, the transfer of catch at sea was permitted, but only after an issuance of certificate by reputed surveyors. However, as a result of protests from local fishers and immense pressure from the National Fishworkers Forum (NFF), this policy was rescinded in 1997. Nevertheless, there is still continued interest in strengthening the deep-sea fishing policy in order to encourage the exploitation of deep-water resources. However, opinions on this are diverse, with few supporting, especially government and many opposing the involvement of foreign companies claiming to support traditional fishers.

In 2002, similar to the 1991 provision of DSFP, the new set of guidelines came with an order issued by department of animal husbandry and dairying for fishing operations in the exclusive economic zone. According to Morgan (2006) its main focus was the registration status of foreign fishing vessels; now, those fishing companies with 100% foreign owned-capital may register as Indian companies and fly the Indian flag. The Letters of Permission (LOPs) issued under these guidelines to 15 Indian companies were condemned countrywide as promoting IUU fishing. Furthermore, these guidelines have been criticized as favouring foreign deep-sea fishing vessel operators registered as Indian companies given its two major provisions: (1) deep-sea fishing vessel above 20 m can take a transhipment at sea of fish and can leave the Indian exclusive economic zone for foreign ports; and (2) there is no obligation for the vessels to return to the base port in India within a stipulated period.

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FISH TRADE POLICY

As per the report by Byers (1998) in the early 1990s, India faced a serious balance of payments crisis and thus, embarked upon a massive programme of liberalisation. Bhat (2011) noted that in order to make trade policies consistent with the new economic policies, substantial changes were made. Some of the changes introduced in 1991, which had an effect on agricultural trade and the fisheries sector was that, first, the canalization of exports and imports was significantly reduced in that the government could no longer determine the value or nature of exports or imports. According to Maya et al. (2001) Ouantitative Restrictions, i.e., measures other than tariffs or duties taken to restrict imports or exports within agricultural trade flows were completely dismantled in April, 2001. Anjani Kumar 2(003) and Salagrama (2004) note that out of 715 items, 60 were fishery products and it included both high-value species of tuna, seerfish and pomfret and low-value species of sardines and mackerel fish. Third, tariffs were reduced, and fish products were allowed to be exported under the open general license (OGL), i.e., they could be exported without a license.

STATE GOVERNMENT POLICIES

State-level fisheries policies and policy statements are also guided by the Five Year Plans and Comprehensive Marine Fisheries Policy, 2004. As per the report by GOG (2009) and Babu et al. (2012) in many states, there is no exclusive fishery policy, and the subject of fisheries is discussed as part of agricultural policy and sometimes as part of states' industrial policy. However, leasing policy for fishing in inland water bodies does exist in most of the states. Even in states where fishery policies exist such as., Maharashtra, Kerala, Tamil Nadu, Andhra Pradesh, Orissa, either on a yearto-year basis in terms of , annual policy notes in Tamil Nadu) or as part of a Five Year Plan, they are usually incomplete. The overall focus has usually been on the further development of fisheries to increase fish catches, and improve the socioeconomic condition of fishers.

LEGAL FRAMEWORK

As per report by Cochrane (2002), a legal framework is essential for the protection and conservation of fisheries resources, which is key component of fisheries management. It is evident from the works of BOBP (1982), Srivastava et al. (1991) and Bensam (1999), the British Government had enacted the Indian Fisheries Act of 1897, which restrained certain injurious fishing activities in seas and inland waters. This Act banned and penalized the usage of explosives and poisons to catch fish, and it also empowered the provincial governments to frame rules under it. It is still in force, and various states and UTs have introduced fishery legislations under its enabling provision.

Following Independence in 1947, various Acts and regulations were implemented. The details of some at national level related to fisheries (directly or indirectly) are listed chronologically in Table 2, while state and UT-specific regulations of marine fisheries are listed in Table 3.



Table 2 List and details of main acts concerning fisheries along with their associated ministries under which they were formulated

	minis	tries under which they were formulated	1
Year	Acts	Details	Associated ministry
1897	Indian Fisheries Act	Restrains use of explosives or poisons to catch fish.	
1972	The Marine Products Export Development Authority Act	Provide for the establishment of an authority (MPEDA) for the development of the marine products industry under the control of union.	Ministry of Commerce
1972	The Indian Wildlife Protection Act	Offers protection to marine biota; amended in 1991 and then in 2001 to include several species of fish, corals, sea cucumbers and sea shells requiring protection.	Ministry of Environment and Forest
1974	Water (Prevention and Control of Pollution) Act	Control of pollution from land-based sources.	Ministry of Environment and Forest
1976	Maritime Zones Act	Describes various zones, the Territorial Waters (12 nautical miles), the Contiguous Zone (24 nautical miles), the Continental Shelf (200 nautical miles), and the EXCLUSIVE ECONOMIC ZONE. Rules framed in 1982, forbid fishing by foreign vessels in coastal areas. Chartered vessels shall fish beyond 24 nm from the shore on the west and beyond 12 nm miles from the shore on the east coast as a general rule.	Ministry of Defence
1978	Coast Guard Act	Protects and enforces maritime law with its jurisdiction over national, international waters. In 1993, Coast Guard was made directly responsible for combating marine pollution. In 1996, National Oil Spill Disaster Contingency Plan was promulgated explaining course of action in the event of oil spills.	Ministry of Defence
1978	Marine Fishing Regulation Acts	Provides guidelines to the maritime states to enact laws to regulate fishing vessels in the 12 nm territorial sea, and minimize the disputes among different sectors of the industry	Ministry of Agriculture
1980	Forest Conservation Act	Provides protection to marine biodiversity.	Ministry of Environment and Forest
1986	Environment Protection Act	The Coastal Regulation Zone notification, 1991, outlines a zoning scheme to regulate development in a defined coastal strip. It also includes standards to protect and improve environmental quality, control and reduce pollution from all sources.	Ministry of Environment and Forest
2002	The Biological Diversity Act	Aims at the conservation of biological diversity & sustainable use of its components.	Ministry of Environment and Forest

Source: GOI (1972); Nawaz (1981); Choudhury (1987); Muralidharan (2009); Jayasankar (2012); Salim and Narayanakumar (2012); Marine Products Export Development Authority.

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UTs of India					
States and UTs	Acts and regulations	Year of enactment			
Cuienet	The Indian Fisheries Act	1897			
Gujarat	The Gujarat Fisheries Act	2003			
	The Maharashtra Fisheries	1961			
	Act				
Maharashtra	The Maharashtra Marine	1981			
	Fishing Regulation Act				
	Indian Fisheries (Goa, Daman,	1968			
Goa	Diu Amendment Act)				
GOa	The Goa, Daman and Diu	1980			
	Marine Fishing Regulation Act				
	The Mysore Game and Fish	1901			
Karnataka	Preservation Act 2				
Kai nataka	The Karnataka Marine Fishing	1986			
	Regulation Act				
	The Game and Fish Protection	1914			
	Regulation Act 12				
	Cochin Fisheries Act 3	1917			
	The United Provinces	1948			
Kerala	Fisheries Act 45				
	Government of Travancore-	1950			
	Cochin Fisheries Act 34				
	The Kerala Marine Fishing	1980			
	Regulation Act and Rules	10.10			
	Indian Fisheries (Goa, Daman,	1968			
Daman and Diu	Diu Amendment Act)	1000			
	The Goa, Daman and Diu	1980			
	Marine Fishing Regulation Act	2000			
Lakshadweep Islands	The Lakshadweep Marine	2000			
1	Fishing Regulation Act	1050			
	Nilgiris Game and Fish	1879			
	Preservation Act II	1020			
Tamil Nadu	Government of Bengal and				
	Madras Amendment Act 11				
	The Tamil Nadu Marine Fishi	ing 1983			
	Regulation Rules Executive Order of the	1002			
		1983			
	Government of Andhra Prade				
Andhra Pradesh	Indian fisheries (Andhra Pradesh Extension and	1961			
Allullia Plauesli	Amendment Act)				
	The Andhra Pradesh Marin	e 1994			
		e 1994			
	Fishing Regulation Act	1001			
	The Orissa Marine Fishing	1981			
	Regulation Act 10	1000			
	The Orissa Marine Fishing	1983			
Orissa	Regulation Rules	rh 1000			
	Judgement by the Orissa Hig	-			
	court making mandatory th use of Turtle Exclusion Devic				
		.00			
	(TED) by fishing trawlers				

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Table 3 Marine fisheries related acts and regulations specific to the coastal states and the				
UTs of India				



West Bengal	Bengal Private Fisheries	1889
	Protection Act 2	
	Government of Bengal and	1929
	Madras Amendment Act 11	
	Fisheries (Requisition and	1965
	Acquisition) Act	
	The West Bengal Marine	1993
	Fishing Regulation Act	
	The Indian Fisheries	1965
	(Pondicherry Amendment),	
	Act 18	
Puducherry	The Pondicherry Marine	2008
	Fishing Regulation Act	
	The Pondicherry Marine	2009
	Fishing Regulation Rules	
	Andaman and Nicobar Islands	1938
Andomon and Nisshar Islands	Fisheries Regulation 1	
Andaman and Nicobar Islands	Andaman and Nicobar Islands	2003
	Marine Fishing Regulation	

Source: Davidar (1968); Nawaz 1981); Atookaren (1991); James (1992); GOAP (1994); Rajguru (1994); Arora and Grover (1996); JICA (1999); GOL (2000); Yadav (2001); Somvanshi (2001); OEF (2002); GOG (2003); GOGD&D (2003); Vivekanandan (2003); Islands (2004); GOP (2008).

The Marine Fishing Regulation Acts were enacted in response to local issues and attempt to manage fishery resources within territorial waters through following (1) zone regulations based on vessel types; (2) registration and licensing of fishing vessels; and (3) control and restriction of certain gears and mesh size restrictions. Varkey et al. (2006)., reported that in Gujarat, the use of wounding gears, such as spears, arrows and harpoons is prohibited, and in the territorial waters of Tamil Nadu, pair trawling and purse seining are banned. Rao (2011), notes that the states of Orissa, West Bengal, Kerala and Andhra Pradesh have included Turtle Excluder Device (TED) regulations for trawlers to protect endangered species of sea turtles.

It is evident from the work of Soumya and Shah (2004) that MFRAs include seasonal fishing closures mainly during monsoon season to restrict the capture of juvenile fishes and fishing restrictions on specific days or times of the day. Night trawling, for example, is banned in certain parts of Tamil Nadu and Andhra Pradesh. Fleet capacity is also regulated; for example, the MFRA of Orissa has clearly specified that allowable fleet size for vessel below 15 m or 25 gross register tonnage (GRT) and operating beyond 5 km from shore is 1000 vessels, and, as per the Kerala's Marine fish regulation act, the registration of new mechanized vessels and motorized boats has stopped since October 2008. The registration and licensing is essential for all crafts including unmotorized traditional vessels except in Kerala where vessels without engines were exempted, but they can fish anywhere in the sea, while limits exists for other categories of vessels. Moreover, it is mandatory in all states that the registered number to be written legibly and displayed on either side of the fishing craft. India is also a signatory to several international instruments related to marine fisheries and habitat.

CONCLUSION

It could be seen clearly from the above discussion that fisheries management was evolved in India during the British period. The importance of fisheries development and management has been emphasized from the first five year plan period to twelfth five year plan period in various objectives and development programs. This paper makes a comprehensive discussion on development of policies and programs towards fisheries development and management in India. Many state governments have enacted various acts

and regulation towards fisheries management.

The success of government policies and legal measures towards fisheries management depends on effective implementation on the part of the government and effective participation of fisher men households in general and stakeholders and consumers in particular.

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