

No.21001/5/2014-Fy(Ind) Vol.IV
Government of India
Ministry of Agriculture & Farmers Welfare
Department of Animal Husbandry, Dairying & Fisheries

Krishi Bhawan, New Delhi.
Dated the 1st September, 2016.

Public Notice

Subject:- Draft National Policy on Marine Fisheries - Comments.

This Department vide Order of even No. dated 28.07.2015 had constituted a Committee under the chairmanship of Dr. S. Ayyappan, former Director General, Indian Council of Agricultural Research (ICAR) to suggest the Draft National Policy on Marine Fisheries. The said Committee, after a comprehensive consultation with stakeholders has prepared the Draft of National Policy on Marine Fisheries, 2016.

2. A soft copy of the Draft National Policy on Marine Fisheries, 2016 as submitted by the said Committee is attached herewith for inviting comments from the stakeholders.

3. It is requested that comments, if any, on the draft National Policy on Marine Fisheries, 2016 may kindly be sent to this Department within **two weeks**. The comments may be communicated by email / fax / speed-post on the following addresses:

Shri Aditya Kumar Joshi,

Joint Secretary (Fisheries),

Department of Animal Husbandry, Dairying & Fisheries, Ministry of
Agriculture & Farmers Welfare, Room No.221-A,

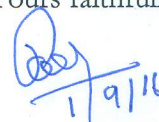
Krishi Bhawan, New Delhi-110001.

Email: jsfy@nic.in

Fax: 011-23070370

4. This has the approval of the Competent Authority.

Yours faithfully,



(Dr. P. Paul Pandian)

Fisheries Development Commissioner

Telefax. 011-23386379

To
Director, NIC, DADF with a request to upload the draft NPMF in the Departments
website/web portal.

Draft National Policy on Marine Fisheries, 2016

Preamble

1.0 The overarching goal of the National Policy on Marine Fisheries, 2016 (NPMF, 2016) will be to ensure the health and ecological integrity of the marine living resources of India's Exclusive Economic Zone (EEZ) through sustainable harvests for the benefit of present and future generations of the nation. The overall strategy of the NPMF, 2016 will be based on the five pillars of **sustainable development, principle of subsidiarity, partnerships, inter-generational equity** and **precautionary approach**. These five pillars will guide the actions of various stakeholders in meeting the vision and mission set for the marine fisheries sector of the country. While fishers will be at the core of this Policy, actions will also be guided by the 'Public Trust Doctrine'.

Noting that India has an Exclusive Economic Zone of 2.02 million sq.km, a long coastline of 8118 km and two major groups of Islands with rich and diverse marine living resources;

Recognizing that the marine fisheries wealth is estimated at an annual harvestable potential of 4.412 million metric tonnes;

Considering that an estimated 4.0 million people depend for their livelihoods on the marine fisheries resources;

Acknowledging that the marine fisheries contribute to an economic wealth valued at about Rs. 65,000 crores;

Recognizing further that the marine fisheries are an important source of food, nutrition, employment and income generation;

Realising that the marine fisheries wealth contributes significantly to the export earnings of the country and balance of trade;

Observing that the marine fisheries of the country are highly diverse but predominantly comprising small-scale and artisanal fishers;

Observing further that the marine fisheries sector is serviced by a range of other stakeholders, including governmental and non-governmental agencies;

Accepting that the marine living resources of the nation offer potential for enhancement of production through sustainable means, including mariculture;

Knowing that the marine fisheries resources are not in-exhaustive and subject to over-exploitation;

Realising further that such over-exploitation would lead to loss of biodiversity and reduced availability of resources for our future generations;

Bearing in mind that the nation is committed to international agreements and arrangements for sustainable use of the marine living resources;

The Committee set up by the Government of India for formulation of the Draft NPMF, 2016 recommends the following vision, mission and strategy for the marine fisheries sector of the country:

Vision

“A healthy and vibrant marine fisheries sector that meets the needs of the present and future generations.”

Mission

“While keeping sustainability of the resources at the core of all actions, the policy framework will meet the national, social and economic goals and wellbeing of the fisher community and is intended to guide the coordination and management of marine fisheries in the country during the next ten years.”

Strategy***Marine Fisheries Sector of India – A Profile***

2.0 The potential of fisheries sector in general and marine fisheries sub-sector in particular was recognized quite early in the Indian development planning and since then a considerable amount of public and private effort has been channeled into the sector for developing it as an instrument of growth. Apart from the prime consideration of securing food and nutritional requirements of the population, fisheries sector plays an important role in trade and commerce, and in the process promotes employment and livelihoods of coastal communities.

3.0 Commencing as a purely traditional activity, fisheries have now transformed to a commercial enterprise. After declaration of the EEZ in 1976, the sea area available to India is estimated at 2.02 million sq. km. With sovereign rights on the EEZ, India has also acquired the responsibility to conserve, develop and optimally harness the marine living resources within this area. In 2011, a Working Group (WG) set up by the Government of India, estimated the potential yield from the Indian EEZ as 4.412 million metric tonnes (mmt). This estimate is 12.2 percent higher than the previous estimate made in the year 2000 (3.934 mmt). Pelagic resources such as oil sardine, ribbonfish, Indian mackerel form 2.128 mmt (48.2%); demersal resources such as penaeid and non-penaeid prawns, cephalopods, perches, croakers comprise 2.067 mmt (46.8%) and oceanic resources mainly comprising yellowfin tuna, skipjack tuna, bigeye tuna, billfishes, pelagic sharks, barracuda, dolphin fish and wahoo constitute 0.217 mmt (4.9%). Depth-wise distribution of the estimated potential yield from the Indian EEZ is estimated as 3.821 mmt up to 100 m depth (86.6%), 0.259 mmt from depths between 100-200 m (5.8%) and 0.115 mmt from depths between 200-500 m (2.6%). The remaining 0.217 mmt (4.9%) is from the oceanic waters. The average marine fish catch during the last 4 years (2012-13 to 2015-16) is 3.499mmt, whereas in 2015-16 it was 3.583 mmt (P). While the fisheries resources from the near-shore waters are fully utilized, the deep sea and oceanic waters offer opportunities of increasing the catch.

4.0 According to the National Marine Fisheries Census 2010, the marine fishermen population in India is estimated at 4.0 million, of which 0.99 million are active fishermen. Among the active fishermen, 33 percent are employed in the mechanised sector, 62 percent in the motorised sector and 5 percent in the artisanal sector. Of the total marine fish production, 75 percent comes from mechanised sector, 23 percent from motorised sector and 2 percent from artisanal sector. The pattern of marine fish landings in India during the past fifty years clearly reveals that the contribution by the artisanal sector to the total production

was significant up to the sixties. With popularisation and consequent expansion of mechanised fishing during the subsequent periods, along with the motorisation of artisanal crafts, contributions by the artisanal sector declined considerably over the years. Mechanised trawl fishery is now the most important among various fishing methods and contributes about 55 percent to the total marine fish production in the country.

5.0 In terms of revenue, some of the high value species such as tunas that occur in the oceanic waters are yet to be optimally harvested. Harnessing the full potential of marine resources will ensure sustainable benefits for the country and the people. As the sector is quite dynamic, there is a need to streamline the policies and programmes to take advantage of the present sum of technical knowledge and the state of resources. In this direction, the Committee suggests the following policy recommendations for consideration of the Government.

Fisheries Management

6.0 A WG set up by the Government in 2011 for assessment of fish stocks in the Indian EEZ indicated overcapacity with respect to different categories of fishing boats for all maritime States/Union Territories (UTs) and suggested the optimum fleet size for consideration of the Government. The Government will progress the suggestions contained in the Report of the WG and will develop strategies to reduce overcapacity and implement the same in a phased manner in consultation with the States/UTs and other concerned stakeholders.

7.0 The average marine fish harvests from the seas around India are close to the current potential yield estimates, indicating optimum harvesting of the resources within the 200-meter depth. On the other hand, the oceanic waters still contain an untapped potential of high value resources like tuna, tuna-like species, myctophids and oceanic squids. However, considering the wide confidence intervals of catch and potential yield estimates, there is a need for taking a precautionary approach in line with the global standards regarding wild fish harvests. With regard to inshore waters, the Government will lay emphasis on maintaining the harvest at about the current levels of Maximum Sustainable Yield (MSY), with sustainability and equity as the key principles. It will also be ensured that the small-scale character of the entire marine fisheries sector is retained.

8.0 To realize the full potential of marine fisheries, efforts will be directed towards fishing effort management; fleet-size optimization; mainstreaming biodiversity conservation in production processes; species-specific and area-specific management plans, including conservation of Ecologically and Biologically Significant Areas (EBSAs) and Vulnerable Marine Ecosystems (VMEs); protection of iconic and endangered and threatened (ETP) species; spatial and temporal measures for sustainable utilization of resources; and creation of fish refugia through consultative processes. Simultaneously, the Government will also undertake review of the existing marine protected areas (MPAs) to ensure that the rights of the traditional fishermen are secured and their livelihoods not impacted by such conservation measures.

9.0 Management of fisheries will follow an integrated approach, blending traditional knowledge and science with business principles and effective engagement of both primary stakeholders, as also those engaged in ancillary activities to ensure that fisheries are ecologically and economically sustainable.

10.0 Knowledge management will be an approach to foster quick and easy availability of information on key attributes of marine fisheries sector, such as resource abundance and distribution; real-time resource maps; productivity assessments; real-time Potential Fishing Zone (PFZ) advisories; and weather forecasts for the benefit of fishers. The use of Information Technology (IT) and space technology will be put to optimum use for harnessing the benefits in support of the fisher community.

11.0 Spatial and temporal closures have helped in sustaining the marine fish wealth of the country. To ensure that such management measures effectively improve the livelihoods of fishers, periodic reviews will be conducted taking into account the best scientific information available, including a precautionary approach, and with due engagement of fishers and other concerned stakeholders.

12.0 The marine fish resources are not inexhaustible, and uncontrolled harvests will lead to depletion of resources, as experienced in many cases. The Government will take appropriate steps in consultation with concerned scientific institutions and fishers in optimizing fishing effort and implementing measures that will help in sustaining the resources. These measures will *inter alia* include input and output controls such as fleet size, fishing days and area of operation, engine horsepower, gear size, MSY, minimum mesh size, minimum legal size, moving effort to areas which are relatively less harvested, developing fleet plans, and creating fisheries management areas to ensure that resource depletion is contained. The concerned institutions will ensure formulation of rebuilding and recovery plans for those fish stocks which are in depleted or collapsed state.

13.0 Presently, coastal States/UTs have specific areas reserved (based on depth or distance from shore) for traditional fishers where mechanised fishing is not permitted. Such Territorial Use Rights for Fisheries or TURFs have proved to be useful in sustaining the livelihoods of artisanal fishers. The Government will continue to provide such support to artisanal/traditional fishers and in consultation with user groups, the Government will consider further enlarging the scope by increasing the area presently available to traditional fishermen in the territorial waters.

14.0 The Ecosystem Approach to Fisheries Management (EAFM) will be implemented with due consideration to the well-being of all living and non-living constituents of the marine ecosystem and the social attributes of stakeholders. In the same vein, participatory management or co-management in fisheries, which is recognized as one of the successful management systems for multi-stakeholder, multispecies and multi-fleet fisheries throughout the world, will be promoted. Such a co-management system, which could include local, regional, inter-state and national fisheries councils would also play a key role in resolving conflicts among different groups of fishermen. The norms for introducing these management measures will be worked out in consultation with the fisheries research institutions, coastal States/UT Governments, fishers and their associations and other concerned stakeholders in the sector.

15.0 The fishing operations in the 12 - 200 nautical miles (nm) zone of the Indian EEZ are currently guided by a set of guidelines issued by the Department of Animal Husbandry, Dairying & Fisheries (DAHD&F), Ministry of Agriculture and Farmers Welfare (MoAFW) in 2014. Based on these guidelines, the eligible applicants are provided with Letter of Permit (LOP) to undertake fishing in stipulated areas. Considering that the LOP scheme has not had the

expected impact on the inclusive development of deep sea fishing sector, the Government will consider an alternate mechanism for development of this sector and rescind the existing LOP scheme. The Government will also introduce new development scheme(s) for enhancing the skills and capabilities of the traditional fishermen to undertake deep sea fishing. The scheme(s) will *inter alia* consider modernisation of existing indigenous deep sea fishing fleet, introduction of new indigenous deep sea fishing boats through fishermen cooperatives/self-help groups, on-board training and linkages to markets and export.

16.0 Utilization of deep sea resources in the EEZ will be reconsidered not only in terms of the resources available in the EEZ, but also infrastructure, human capacity development and a comprehensive and implementable set of rules and regulations, with a strong Monitoring, Control and Surveillance (MCS) regime, availability of scientific and technical information on the commercial fisheries resources and the best fishing methods with which to target them.

17.0 The Government will develop a holistic resource utilization plan for the EEZ, taking into consideration the requirements of coastal States/UTs. At the same time, coastal States/UTs will also be urged to recognize that the area of EEZ between 12 and 200 nautical miles is a common resource managed by the Union Government and isolated fishing strategies by the States/UTs may lead to over-exploitation and inter-state conflicts. Keeping this in view, the Union Government and the State Governments will be acting together to agree upon the management policies and measures for sustainable utilization and management of the living resources in the EEZ.

18.0 There is also considerable scope to harvest the fishery resources of the high seas or in Areas Beyond National Jurisdiction (ABNJ) as done by many other countries. The Government will promote utilization of fishery resources in the ABNJ by Indian fishing boats subject to compliance of relevant provisions in the International Agreements/arrangements concerning fisheries in the high seas.

Monitoring, Control and Surveillance

19.0 The existing mechanisms in place for a sound and effective MCS regime for marine fisheries sector need further strengthening. Presently, the Government has an online uniform registration and licensing system (ReALCraft) to register all fishing crafts operating in the marine sector (traditional, motorized, mechanized and non-mechanized). While monitoring of fish catch and effort and control of fishing through registration and licensing is in place, MCS activities will be further strengthened through greater engagement of the Department of Fisheries of the maritime States/UTs, Coastal Marine Police and the Coast Guard. Strengthening and improvements in MCS will be carried out in a phased manner, by using conventional means (use of log books, movement tokens, colour coding of fishing boats, biometric cards to fishers for their identity) and also space technologies and IT tools (*e.g.* Vessel Monitoring System and Automatic Identification System).

20.0 The marine fisheries sector is characterized by a range of fishing boats varying in design, use of material, size, engines and gear and area of operation. The legislations relating to registration, certification, sea-safety and manning norms of fishing vessels are required to be updated to cater to the needs of fishery sector and also to meet the international standards and norms prescribed by concerned agencies such as FAO, IMO, ILO etc.

21.0 Further, establishment of boat building yards and construction of fishing boats has been an unregulated activity in the country, leading to construction of poor quality boats that

compromise with key attributes such as stability, optimum space for fish holds, crew quarters and provisions for kitchen and toilets. With the increased usage of Fibre Reinforced Plastic (FRP), the chances of building poor quality boats by such boatyards has amplified. The Government will consider enlarging the scope of the Marine Fishing Regulation Acts (MFRAs) of maritime States/UTs to include registration of boat building yards, standard design specifications for boats, construction material and procedures for continuous monitoring and control of boat construction.

22.0 India being a party to several international agreements/arrangements to deter, prevent and eliminate Illegal, Unreported and Unregulated (IUU) fishing, the Government will establish a sound mechanism both at the port and at sea to ensure that the Indian fishing fleet does not engage in any IUU fishing within its own EEZ, high seas and EEZs of other nations.

23.0 In recent times, the incidences of Indian fishermen crossing the International Maritime Boundary Line (IMBL) have increased. This increase is attributed to many reasons, one of them being the redefining of the IMBL on the basis of the judgment given by the Permanent Court of Arbitration at The Hague. To reduce such incidents, the Government will consider providing necessary awareness and training to fishermen so that the crossing of IMBL is avoided.

24.0 Convention 188 of the International Labour Organization (ILO) has been a landmark international instrument providing necessary provisions for best labour conditions on fishing boats. The Government will consider incorporation of the provisions of the said Convention into the domestic legislation to provide necessary protection to labours working on fishing boats. In this regard, it is also essential that the above provisions are extended to labours migrating from one State/UT to the other for working on fishing boats.

25.0 It is estimated by the ILO that globally 24,000 fishermen perish annually while fishing at sea. These figures are derived from countries where good statistics are maintained on accidents at sea. If mortality figures from other countries are also taken into account, the estimates would be much higher. In view of the predominant small-scale nature of the Indian marine fisheries, the Government will ensure that safety-at-sea measures are adequately strengthened and implemented. Such measures *inter alia* will include provisions of lifesaving appliances and communication equipment on the boat and adequate skills and capacity development of fishers and other concerned stakeholders.

Fisheries Data and Research

26.0 To allow for considered decisions, the Government will strengthen science-policy interface. Further, as sound policy decisions will necessitate timely, reliable, and comprehensive datasets covering various facets of the marine fisheries sector, the Government will implement a National Marine Fisheries Data Acquisition Plan involving Central and State Governments, research institutions and stakeholders.

Mariculture

27.0 Mariculture, if carried out sustainably, can play an important role in increasing fish production from the coastal waters. Government will encourage schemes to set up mariculture farms/parks and setting up of hatcheries for supply of seed for development of the sector. Institutional and commercial needs of this emerging sector, which will include lease rights policies; spatial planning; technological inputs such as husbandry, seed, feed, health management; environmental and social impacts; capacity building of fishers and entrepreneurs to take up mariculture; and development of markets and value chains will be addressed in consultation with the coastal States/UTs and concerned stakeholders.

Island Fisheries

28.0 The Andaman & Nicobar and Lakshadweep Group of Islands have significant fisheries resources, including lucrative fisheries of tuna and tuna-like species and other species of commercial values such as groupers, snappers and coral fishes. Their geographic remoteness has so far impeded fisheries development and optimal harnessing of fisheries wealth. The Government will implement dedicated programmes for sustainable harvest of fisheries resources, mariculture, developing capacities of local fishers and institute post-harvest support that can allow the harvested resources to come to the mainland markets as also to seafood export destinations.

Post-harvest & Processing

29.0 The general hygiene and sanitary aspects of fish landing centres, harbours and fish markets in the country need improvement to raise them to international standards. The Government will introduce programmes to sensitize the stakeholders for maintaining cleanliness and hygiene in the fishing harbours. Simultaneously, the State Governments and Port Trust Authorities will be encouraged to develop suitable mechanisms to address the issue, including stakeholder run committees for day-to-day management of the harbour facilities. This will ensure availability of safe and hygienic seafood.

30.0 Provision of adequate infrastructure facilities is critical to the marine fisheries value chain, and also critical for many MCS functions. Based on a comprehensive reassessment of the requirements and ensuring minimal impacts on the coastal ecosystem, the Government will create additional facilities, including harbour-based fish dressing centres and fish processing estates. To promote direct engagement of stakeholders in setting up of such infrastructure facilities, fisher cooperatives will be encouraged along with the Public-Private Partnership mode to ensure speedy fulfilment of the requirements.

31.0 Presently, it is estimated that about 15 percent of the fish harvest is lost in post-harvest activities, which is a colossal waste of natural wealth that otherwise could have been put to better use. The Government will address the post-harvest losses through better on-board fish handling, as it will lead to better quality and prices, particularly for high value fishes and their products. More importantly, loss of valuable fish wealth will be minimized so that more fish is available for human consumption. Mitigation measures to reduce bycatch will be promoted through relevant implements, gears and other management measures.

32.0 Use of low-value fish in fish feed industry is becoming a matter of concern as it can lead to overfishing of low value fish and bycatch, and could undermine the integrity of the marine

ecosystem. The spread of fish meal plants in some coastal States and their overwhelming demand for small pelagics has led to overfishing, resulting in reduced stocks of small pelagics in some parts of the country. The Government will address this issue by taking steps to control and regulate the proliferation of fish meal plants.

Trade

33.0 Indian seafood finds a significant place in the global seafood trade. Over the period, seafood exports from India have grown both quantitatively and qualitatively. Notwithstanding these developments, Indian seafood is yet to realize its optimum value, first due to low levels of value addition and second due to poor product branding. To overcome these weaknesses, the Government will make efforts to promote diversification of products, improve value addition and product branding and enhance the reach to new markets in different parts of the world. Similarly, with the growing consumer demand for fish and fish products in the domestic sector, the Government will undertake thorough review of the existing infrastructure, value chain and other important attributes of domestic fish marketing to ensure that consumers get high quality fish.

34.0 Fishery product traceability and chain-of-custody will be addressed, as they have assumed paramount significance in global seafood trade. Besides, diversifying seafood products to meet international demand and standards, efforts will also be made to get maximum value for fishery products. Furthermore, fishery products will be integrated with Food Safety Standards Authority of India (FSSAI) benchmarks to improve the domestic marketing value chain. In this regard the Government will also consider harmonizing FSSAI benchmarks with those of the Export Inspection Council (EIC).

35.0 Traceability of seafood and eco-labelling are gradually gaining importance as market-based interventions to ensure environmental sustainability of fisheries. Demonstrating the traceability of seafood is an important requirement for all seafood exported to markets in the European Union (EU). It is likely that in the coming years more importing countries as also markets will demand only certified and labelled seafood. The Government will create an enabling environment for promoting eco-labelling of key Indian fisheries that would benefit fish stocks, seafood industry and fishers.

36.0 The wide difference between fish sale price at landing centres and the retail markets indicates that the middlemen take a substantial share of the prices. There are issues of credit bondage also. The Government will consider taking steps to bring in necessary interventions so that the dependency of the fishers on middlemen and private financiers is reduced. Efforts will also be directed towards strengthen marketing through fishermen-run and/or state-run harbour based cooperatives.

Marine Environment and Pollution

37.0 The state of marine environment in India is under stress due to pollution and is probably one of the reasons for decline in fish stocks. Further, factors such as poor effluent treatment on land, plastics (especially, micro-plastic particles) in the sea and ghost fishing are equally affecting fish stocks. Government will strengthen regulatory mechanisms to control pollutants

to ensure that land and sea-based pollution are effectively controlled and the ecosystems monitored.

38.0 Development of Ports often leads to erosion and accretion along Indian coasts. Changes brought about in coastal configuration from such developments impact the coastline, damage fisher habitations and affect the ecology and fisheries. This is a matter of grave concern affecting fisher livelihoods and the resources they depend on. Government will consider placing adequate mechanisms to ensure that the opinion of fishers is taken before such projects are launched. In cases where subsistence activities and livelihoods of fishers are impacted, such fishers will be considered as project affected people and suitable rehabilitation measures will be implemented.

39.0 It is well known that coastal and inshore waters are tail-end ecosystems and marine fish resources in them are highly dependent on the inflow of freshwater and sediments that bring in nutrients. However, these water bodies are subject to anthropogenic pressures resulting in degradation of environmental quality and reduced flows of freshwater that affects stocks of several important marine fishery resources, particularly the high value shrimps, which complete a phase of their life cycle in these inland coastal waters. Therefore, to safeguard the ecological integrity of such tail-end ecosystems, the Government will consider a landscape to seascape approach where sound management of inland water resources will also ensure the health and well-being of the coastal waters.

40.0 While promoting development of sustainable fisheries, the Government will place emphasis on maintenance of the ecological integrity of marine environment, so as to ensure that there are no adverse effects on the endangered, threatened or protected marine species. Mangroves, seagrass beds and coral reefs are integral part of the coastal marine ecosystems and provide a range of ecosystem services, including habitation for many fish species and marine mammals, such as dugong. Such ecosystems will be protected from anthropogenic impacts.

Climate Change (Adaptation and new initiatives)

41.0 Climate change is one of the biggest challenges that the fisheries sector is facing and time-bound adaptation and management plans are necessary. The impacts of climate change on marine fisheries are amply visible in the Indian EEZ and surrounding high seas. Such impacts have brought perceptible changes in the fishery of some species, forcing fishers to make changes in fishing operations. Climate change is also one of the reasons for changes in abundance of vulnerable fish stocks. Government will encourage focused studies on climate change impacts on fish stocks and fishing communities, besides implementation of adaptation options in a time bound manner. As part of India's International commitments on climate change, the concept of green fisheries by reducing Green House Gases (GHG) emissions from fishing and fishing related activities will also be encouraged.

Fisher Welfare, Social Security Nets & Institutional Credits

42.0 The Government will continue the current welfare measures and further strengthen them to provide adequate safety nets to fisher community in the country through the Direct Benefit Transfer Scheme (DBTS). Such measures will also include insurance cover, housing and other amenities and community welfare programmes to fishers.

43.0 Weather events of extreme nature such as storm surges, cyclones and rogue waves will be considered as natural calamities. In the same vein, man-made disasters such as oil spills and overfishing will also be considered as calamities and affected fishing communities will be provided with admissible support/assistance in restoration of their livelihoods. In cases of loss of fishers' life at sea, the procedures for compensation would be made easier so that the benefits to the affected fishers' family are provided within a reasonable time.

44.0 The positive impacts of fishing ban on the health of fish stocks have been voiced by a large section of stakeholders. Some coastal States as also the stakeholders have also voiced the need for increasing the ban period from the present span of 61 days. Keeping in view the beneficial effects of the ban and good cooperation of stakeholders, the Government will further strengthen the existing compensatory package available to fishers during the period of fishing ban. This will not only promote increased engagement of stakeholders in the conservation of resources, but will also help in rejuvenation and restoration of fish stocks that have been showing signs of decline/depletion.

45.0 The institution of fisheries cooperatives has gained momentum over the years and in some States/UTs, such cooperatives have demonstrated their success. The cooperatives in fisheries sector can best serve the community if they adopt good business models that would include both harvest and post-harvest functions. The Government will further facilitate and strengthen fisheries cooperatives through skill development and technical and financial support, wherever necessary. The cooperatives will also be encouraged and strengthened in carrying out a science-based approach to address fisheries and climate related issues.

46.0 Availability of institutional credit for fishermen for purchase of fishing implements and crafts has often proved very difficult, and the risky nature of returns has resulted in many fishermen falling into the debt trap of private financiers and middlemen. In order to remedy this situation, the Government will consider providing public finance to fishermen with liberal terms and conditions. In this direction, the role of the National Bank of Agriculture and Rural Development (NABARD) assumes significance and will be considered in meeting the needs of the fishers.

47.0 The Government will initiate steps for training, capacity building as well as up-gradation of technological skills of traditional fishers in moving from artisanal fishing to more economic and efficient means of fishing.

Gender Equity

48.0 Women constitute more than 66 percent of the total work force in post-harvest activities in the fisheries sector. Besides raising families, women play important roles in retailing fish, fish drying and other value addition activities through women self-help groups. The Government will continue to support its contributions to the roles played by women and will further enhance support by way of forming women cooperatives; women-friendly financial support schemes; good working conditions that would include safety, security and hygiene and transport facilities for retail marketing; encouragement to take up small-scale fishing, value-addition activities; and also play an active role in fisheries management.

Additional/Alternate Livelihoods

49.0 Keeping in mind the dwindling marine fisheries resources, additional/alternative sources of livelihoods will be essential for the vast number of fisher communities spread all along the coastline. Mariculture and eco-tourism are considered important in this regard and both offer good potential of additional/alternate sources of livelihoods. Game Fishing and the concept of Catch, Photograph and Release (CPR) is gaining importance throughout the world as part of fisheries tourism. The Andaman & Nicobar Islands and the Lakshadweep Group of Islands, besides some coasts of the mainland, are ideally suited for promotion of such activities. The Government will promote CPR schemes among fishermen in suitable areas and will also consider harmonizing tourism plans related to coastal and marine waters with the livelihood needs of the fishers.

Blue Growth Initiative

50.0 While re-defining its strategy for fisheries sector, the Government will focus on ushering 'Blue Revolution' (Neel Kranti) by sustainable utilization of fisheries wealth from the marine and other aquatic resources of the country for improving the lives and livelihoods of fishers and their families. The 'Blue Revolution' will encompass the elements of the Blue Growth Initiative as also the targets set under the Sustainable Development Goals, to which India is committed.

51.0 In view of the competing demands for ocean space, the need for Marine Spatial Planning (MSP) assumes significance. With the growing demand for mineral and oil exploration/extraction from the seas, the increasing volumes of maritime commercial traffic and reservation of spaces for strategic defence purposes, the available space for fisheries is diminishing. Keeping these contemporary developments in view, the Government will consider MSP to ensure that all economic activities get their due space and in the process the conflicts are reduced.

International Agreements/Arrangements

52.0 Indian fisheries is now set in a globalized world. The global agenda on fisheries is guided by a set of binding and non-binding instruments that concern both fisheries and environmental aspects. India being a signatory to such instruments and agreements needs to implement the provisions and agreements to meet its international obligations and make fisheries sustainable, which otherwise could impact the sector and in turn affect the livelihoods of millions of fishers. The Government will ensure compliance of the provisions of the international instruments/arrangements and also active participation in the activities of the regional/international bodies demonstrating India's leadership in management of its marine resources that are part of the 'Common heritage of the mankind.'

53.0 The FAO's Code of Conduct for Responsible Fisheries (CCRF or Code) is today the most significant of the non-binding agreements in the global fisheries sector. It is global in scope and directed towards members and non-members of FAO, fishing entities, organisations of all kinds, fishers, people engaged in the processing and marketing of fish and fishery products – in short, everyone concerned with management and development of fisheries. The Code is voluntary, but certain parts of the Code reflect and include major articles and provisions from a number of global UN conventions and agreements, as mentioned earlier. The Code sets forth

principles and standards applicable to the conservation, management and development of all fisheries. The Government will ensure that the Code and its Principles are well-integrated in all its activities that relate to marine fisheries sector.

54.0 The global community has recognized the importance of small-scale fisheries as a principal contributor to poverty alleviation and food security and has agreed to the Voluntary Guidelines on Sustainable Small-scale Fisheries (VG-SSF). The main objectives of the VG-SSF Guidelines are expected to be achieved through the promotion of a human rights-based approach in the context of food security and poverty eradication, by empowering small-scale fishing communities. The Government will make all efforts to implement the provisions of the VG-SSF keeping in view the complexities and divisions within the small-scale sector, particularly those involved in sustenance fishing.

55.0 As the provisions contained in the binding and non-binding international instruments normally draw strength from each other, it is essential that these instruments are considered holistically and not in isolation. The Government will encourage wide consultations with stakeholders and fisheries organizations to provide a more balanced understanding and better implementation of such instruments.

Regional Cooperation

56.0 The Indian sub-continent is surrounded on the west by the Arabian Sea and on the east by the Bay of Bengal. Together, the two seas form part of the upper Indian Ocean. On the west coast, India shares its maritime boundaries with Pakistan and the Maldives, while on the east coast, the boundaries are shared with Sri Lanka, Bangladesh, Myanmar, Thailand and Indonesia. In some cases, it is not only the shared maritime boundaries but also shared ecosystems, such as the Gulf of Mannar and Palk Bay between India and Sri Lanka; Sunderbans between Bangladesh and India; Myeik (Mergui) Archipelago in the Andaman Sea. Both the Arabian Sea and the Bay of Bengal harbour migratory as well as straddling fish stocks, such as tuna and tuna-like species, sharks and Spanish mackerels. As situations necessitate, the Government will foster a strong regional cooperation in management and sustainable utilization of the resources, including conservation of species/stocks, wherever necessary.

57.0 Cooperation in safety and security of fishermen is also necessary as the upper Indian Ocean, especially the Bay of Bengal, witnesses high number of adverse weather events and every year many fishers lose their lives or suffer extreme hardships. Further, cooperation in the field of marine fisheries through bilateral arrangements as also by participating in the regional fisheries and environment bodies will be enhanced. Such cooperation will facilitate managing shared resources and shared ecosystems; harmonization of policies and programmes aimed at optimized harvesting of trans-boundary resources; safeguard of human rights, in particular for fishermen straying in waters of other countries.

58.0 Indian fishers are widely recognized in other countries in the region for their skills, industrious nature and the ability to work under challenging conditions. As a result, more and more fishers from India are now finding employment in fishing fleets of other countries. On many occasions, Indian fishers have been apprehended in neighbouring countries while fishing in the EEZ of other countries, making it difficult for the Government to secure their release through normal channels. The Government will ensure that fishers who are willing to take employment in the fisheries sector in other countries have adequate skills and knowledge of

working in alien seas and go through formal Government approvals based on ILO Convention 188.

Governance and Institutional Aspects

59.0 The marine fisheries sector is dealt by a range of institutions that fall within the purview of coastal State/UT Governments (DoF), Central Government (DAHD&F, Ministry of Commerce & Industry, Coast Guard) and scientific bodies. This pluralistic governance structure necessitates strong coordination between the Ministry of Agriculture and Farmers Welfare and the Coastal States/UTs on one hand and different Ministries/Departments of the Union Government on the other. Further, similar cooperation between coastal States/UTs will also be essential to ensure that fisheries are sustainably harvested. In this regard, the Government will consider putting in place a mechanism to allow for better coordination between all concerned agencies.

60.0 Marine fisheries in India is dynamic with continuous changes in practices and resource harnessing. The Marine Fishing Regulation Acts (MFRAs) have come into existence from the early 1980s, and barring a few States/UTs, the MFRAs were in place by mid-1990s. Keeping in view the fact that most of the MFRAs were adopted before the adoption of key international agreements/arrangements (1982 UNCLOS, 1992 UNFSA, 1995 FAO CCRF), the Government will consider updating the existing rules and regulations for governing fisheries in the MFRAs and also aligning with international instruments/arrangements to ensure that they cover all aspects of fisheries management. This will be carried out by preparation of a Model Bill for consideration of the coastal States/UTs.

61.0 The Central Government is mandated to control and regulate fisheries in the EEZ, *i.e.*, the area from 12 to 200 nautical miles. Therefore, there is a need to regulate fisheries in the EEZ with appropriate legislation. The Government will take steps to bring in such legislation for sustainable development and management of fisheries in this area.

Way Forward

62.0 The NPMF, 2016 is expected to meet the multi-dimensional and growing needs of the marine fisheries sector for the next one decade. The Policy is holistic and adequately addresses the needs of all the segments of this diverse economic activity. The NPMF, 2016 will have a 'Roadmap' that will specify the action points under each recommendation contained in the Policy. These action points will be further elaborated with timelines for implementation, agencies responsible for the work and the likely sources of funds required for implementation. The Implementation Plan will also have a 'Monitoring and Evaluation' section that will address the timeliness and efficacy of implementation. It is expected that through the implementation of this policy, the marine fisheries sector in India will become a sustainable and well-managed entity, ensuring enhanced utilization of the harvest for human consumption; employment, gender equity and livelihoods; equity and equality; provision of food security and nutrition; and creation of wealth and prosperity in the sector.
