

THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES – ITS APPLICATION TO THE MANAGEMENT AND DEVELOPMENT OF MARINE FISHERIES IN INDIA

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INTRODUCTION

The fisheries sector occupies a very important place in the socio-economic development of India. The sector has been recognised as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and as a source of cheap and nutritious food. At the same time it is an instrument of livelihood for a large section of economically backward population of the country. The fisheries sector has also been one of the major contributors of foreign exchange earnings through export. The earnings from export of fish and fishery products crossed US\$ one billion mark in 1995-96 and has reached the figure of Rs 46 270 million² in 1998-1999.

OBJECTIVES OF FISHERIES DEVELOPMENT

The main objectives of fisheries and aquaculture development programmes of the Government of India³ are optimizing production and productivity, augmenting export of marine products, generating employment and improving welfare of fishermen and their socio-economic status. The objectives are essentially focused towards:

- Enhancing the production of fish and the productivity of fishermen, fisherwomen, fish farmers and the fishing industry,
- Generating employment and higher income in the fisheries sector,
- Improving the socio-economic conditions of traditional fisherfolk and fish farmers,
- Augmenting the export of marine, brackish and freshwater fin and shell-fishes and other aquatic species,
- Increasing the per capita availability and consumption of fish to about 11 kg per annum,
- Adopting an integrated approach to marine and inland fisheries and aquaculture taking into account the needs for responsible and sustainable fisheries and aquaculture and
- Conservation of aquatic resources and genetic diversity.

² One US \$ = INR 46.50

³ Report of the Working Group on Fisheries for the Formulation of Ninth Five Year Plan

FISHERIES RESOURCES

The country has a long coastline of 8,118 km and an equally large area under estuaries, backwaters, lagoons, etc. highly amenable for developing capture as well as culture fisheries. After declaration of the Exclusive Economic Zone (EEZ) in 1977, the area available to India is estimated at 2.02 million km², comprising 0.86 million km² on the west coast, 0.56 million km² on the east coast and 0.60 million km² around the Andaman and Nicobar Islands. With the absolute right on the EEZ, India has also acquired the responsibility to conserve, develop and optimally exploit the marine living resources within this area.

The marine fishing fleet⁴ comprises about 226 000 traditional craft, of which about 44 578 are motorised, 53 684 small mechanised craft and about 170 large fishing vessels of 21 m overall length (OAL) and more. As seen by the number of traditional craft and small mechanised vessels, the major fishing activities are still concentrated in the areas within the 0 to 70-80 m depth zone. Trawling by larger vessels is mainly confined to the northeast coast. As compared to the west coast, the concentration of traditional craft (including motorised) is higher on the east coast (about 57% of the total). The trend is reverse in the case of mechanised vessels. The scale of mechanisation is also reflected in the total fish landings of the two coasts.

PRESENT LEVELS OF FISH PRODUCTION

It has been generally recognised that the Indian Ocean has well developed fisheries, but coastal resources in this ocean are under stress in many areas and require effective management, even though the potential for expansion may exist offshore. In India, while inshore waters have been almost exploited to the sustainable levels, the contribution from the deeper waters has been insignificant. The current (1998-99) annual fish production has been estimated at 5.26 million tonnes, of which 2.696 million tonnes from the marine sector against a potential of 3.9 million tonnes and 2.566 million tonnes from the inland sector against a potential of 4.5 million tonnes. The provisional figures for 1999-2000 have been estimated at 2.834 million tonnes from the marine sector, 2.823 million tonnes from the inland sector and a total of 5.66 million tonnes.

The growth in marine fisheries production over the recent years has been rather slow (an average of 2.0 % during the period 1991-1992 to 1998-1999) as compared to the inland fisheries (average of 7.0 % during the corresponding period). The State Kerala has emerged as the leading producer of marine fish during 1998-1999, followed by the States Gujarat, Maharashtra and Tamil Nadu.

CURRENT STATUS OF FISHERIES MANAGEMENT FRAMEWORK

INSTITUTIONAL FRAMEWORK

Entry 57 of List 1 of the Seventh Schedule of the Constitution specifies *Fishing and Fisheries beyond Territorial Waters* as union subject, whereas Entry 21 of List II speaks of *Fisheries* as a State subject. Reading both the Entries together, it follows that control and regulation of fishing and fisheries within territorial waters is in the jurisdiction of the State, whereas beyond the territorial waters, it is the exclusive domain of the Union.

ROLE OF CENTRAL GOVERNMENT

⁴ Source: Department of Animal Husbandry & Dairying, Ministry of Agriculture, Government of India

The Fisheries Division of the Department of Animal Husbandry & Dairying in the Ministry of Agriculture acts as a focal point for fisheries development and management in the country. It formulates strategies for the national development plans for the fisheries sector and issues policy guidelines for fisheries development and management from time to time. The Central Government also acts as a co-ordinator, carrying out fishery research and channelling funding support to the States and Union Territories in line with national priorities and other commitments.

ROLE OF STATE GOVERNMENTS

The Departments of Fisheries (DOFs) in the State and Union Territory governments are responsible for fisheries development and management in their respective areas. The principal objectives of the DOFs are planning and development of infrastructure facilities for landing and berthing of fishing vessels, creating suitable marketing facilities, implementation of various fisheries development programmes and interaction with the Government of India for technical and financial assistance.

LEGISLATIVE FRAMEWORK

For sustainable development of the marine resources, India amended its constitution in 1976 and the Parliament enacted the Territorial Sea, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Acts in 1976. Subsequently, an EEZ 200 of nautical miles was established with effect from January 15, 1997. Besides, the Central Government has also enacted the following legislations for the judicious exploration, exploitation, conservation and management of marine living resources.

Table 1. Area Reservation for Traditional and Mechanized Fishing Vessels in the Territorial Waters of Maritime States under the Fishing Regulation Acts/ Rules

State	Marine Fishing Regulation Act	Area exclusively for Traditional Craft*	Area for mechanised vessels
Gujarat	Under consideration		
Maharashtra	MFRA 1981	5-10 fathom (9-18 m) depth	
Goa	MFRA 1980	0-5 km	Beyond 5 km
Karnataka	MFRA 1980	0-6 km	Beyond 6 km
Kerala	MFRA 1980	0-10 km	Beyond 10 km
Tamil Nadu	MFRA 1983	0-3 nautical miles (0-5.4 km)	Beyond 3 nautical miles
Andhra Pradesh	MFRA 1993	0-10 km	Beyond 10 km
Orissa	MFRA 1982	0-5 km	(i) up to 15 meter OAL beyond 5 km (ii) above 15 meter OAL beyond 10 km
West Bengal	MFRA 1993		
UT of Lakshadweep	MFRA 2000		

**Traditional craft can fish any where in the sea. The reservation mentioned implies only that vessels of other categories may not fish in the area reserved for traditional craft.*

1. Marine Products Export Development Authority Act, 1972.

2. The Wildlife Protection Act, 1973 and various central legislations on environmental protection.
3. Indian Coast Guard Act, 1977.
4. The Maritime Zones of India (Regulation of Fishing by Foreign Fishing Vessels) Act, 1981.

Under the enabling provisions of the Indian Fisheries Act 1897, various States and Union Territories have introduced their fishery regulations. For regulation of fisheries in the territorial waters, all the Coastal States and the Union Territory of Lakshadweep (except Gujarat and the remaining coastal Union Territories) have enacted their Marine Fishing Regulation Act (MFRA), (Table 1). These State Acts are based on a model bill provided by the union government in 1979.

MONITORING, CONTROL AND SURVEILLANCE SYSTEMS (MCS)

The existing legal framework for MCS in coastal waters is based on MFRAs enacted by the States and some executive orders issued from time to time. The Governments of the coastal States and Union Territories control domestic vessels operating within the territorial waters, while the Central Government is responsible for issuing licences to deep-sea fishing vessels operating under joint venture arrangements. Licences carry restrictions on fishing methods, types of gear, area, depth and codend meshsize. Other regulatory measures presently implemented include closed seasons, closed areas and marine parks. However, there is no legislation for Indian-owned fishing vessels operating beyond the territorial waters.

The coastal State or Union Territory Governments also undertake surveillance in coastal waters. The Central Government has sponsored a scheme that meets 100% of the capital costs of 30 patrol boats to be deployed in territorial waters by the States which have enacted the MFRAs.

The Coastguard, which is under the Ministry of Defence undertakes surveillance beyond the territorial waters. The Ministry of Agriculture (Fisheries Division) works in close co-ordination with the Coast Guard and also supplements its budget for upgrading communication facilities on its patrol vessels.

THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES

NATURE, SCOPE AND OBJECTIVES OF THE CODE

The Code of Conduct for Responsible Fisheries (CCRF) or simply the Code, as it is popularly known, defines in the General principles that “*The right to fish carries with it the obligation to do so in a responsible manner.*” It sets out principles and standards of behaviour for such practices and aims at effective conservation, management and development of living aquatic resources. The Code covers not merely capture of fish and fishing operations, but the processing and trade of fish and fishery products, aquaculture, fisheries research and the integration of fisheries into coastal area management.

The Code reflects and includes major articles and provisions from a number of global UN conventions and agreements such as:

- The UN Convention on the Law of the Sea, of 10 December 1982

- The 1992 Declaration of Cancún
- The 1992 Rio Declaration on Environment and Development
- Agenda 21 adopted by the UN Conference on Environment and Development, in particular Chapter 17 of Agenda 21.

The Code contains 12 articles plus two annexes. The resolution as contained in Annex 2 of the Code *inter alia* calls on everyone concerned with fisheries to collaborate in implementation of the Code; urges that the special requirements of developing countries be taken into account in implementing the Code; requests FAO to advise developing countries in this respect; calls upon FAO to monitor and report on the implementation of the Code and urges FAO to strengthen Regional Fisheries Bodies to deal more effectively with fisheries conservation and management issues.

The Code is global in scope. It is directed toward members and non-members of FAO, fishing entities, organizations of all kinds, fishers, people engaged in the processing and marketing of fish and fishery products – in short everyone concerned with conservation of fishery resources and management and development of fisheries.

THE TECHNICAL GUIDELINES

The Code is a guiding principle on how sustainable fisheries can be achieved at national, regional and international levels in all aspects of fisheries and aquaculture. To support implementation of the Code at national and local level, FAO has developed nine technical guidelines in collaboration with member-countries and various organizations on the following subjects:

1. Fishing Operations
2. Precautionary Approach to Capture Fisheries and Species Introductions
3. Integration of Fisheries into Coastal Area Management
4. Fisheries management
5. Aquaculture Development
6. Inland fisheries
7. Responsible Fish Utilization
8. Indicators for Sustainable Development of Marine Capture Fisheries
9. Vessel Monitoring Systems (Supplement to No 1 Fishing operations)

STATUS OF IMPLEMENTATION OF THE CODE IN INDIA

As a first major step toward promoting implementation of the CCRF in India, a National Workshop for coastal States and Union Territories was organized by the Bay of Bengal Programme in association with the Government of India at Chennai during 29-30 September 2000. The objectives of the Workshop were to fully familiarise government functionaries with the elements of the Code and the technical guidelines that have been prepared by FAO to assist member-countries in implementing the Code.

The National Workshop brought together senior fisheries administrators working with the Union Ministry of Agriculture and the State and Union Territory Governments, scientists and experts from fisheries institutions and representatives from national and international NGOs. The two-day Workshop highlighted several problems concerning implementation of the Code in a large country like India. Keeping in view the strengths and weaknesses of national and State governments, the vastness of the country and the diverse and highly complex demographic and socio-political fabric, the planners and experts concluded that massive efforts would be needed to take the Code to the grassroots level quickly⁵. A significant outcome of the National Workshop was the Plan of Action (Annex) that identified critical areas where immediate action was warranted. The following paragraph discuss some of the important issues in this regard.

ISSUES IN FISHERIES MANAGEMENT AND POSSIBLE RESOLUTION

India faces considerable difficulties in the development and management of its fishery resources for a variety of reasons. The Indian subcontinent covers a vast region with long coastlines and different ecosystems, both on land and in the sea. The fishery resources are diverse, as are the fishery technologies and systems. Small-scale fishermen operate from thousands of landing places along the beaches and live within socially and culturally disparate communities.

Responsibilities and programmes for fisheries management and development are split between the national government and State governments which differ in their policies and approaches. In addition to these difficulties specific to India there are also difficulties of a more general nature. Recent trends in the small-scale fisheries have been disturbing and indicate the need for management. The catches and earnings of small-scale fisherfolk have been declining. Resource scarcity and the dearth of new income opportunities have combined to make life difficult for small-scale fisherfolk. In the trawl fishery, on the other hand, average sizes of species have been falling and the species composition is changing, indicating the need for adoption of sound management practices.

Optimisation of Fishing Fleet

The condition of open access in marine capture fisheries is one of the major reasons for depletion, economic waste and conflict among user groups. Without adequate control over access, these consequences will become increasingly severe. With an open access, no catch limits have been set on effort or the catch. To optimise the fishing fleet size, a National-Level Review Committee was constituted to study the size of the present marine fishing fleet in India *vis-à-vis* the harvestable potential and give recommendations on the effort that needs to be deployed. The Committee has concluded, after discussion with experts and with coastal States, that the mechanized fishing fleet, in the size range of 8-to-15 m OAL, has attained optimum strength. However, 700 new-generation resource-specific vessels, about 18m OAL, including trawlers and gillnetters-cum-longliners, could be added to the fleet to tap resources in the Exclusive Economic Zone beyond the 50 m depth zone.

At present, only the mechanized vessels are licensed. The system of licensing should be extended to all motorized and non-motorized craft as well. Licensing will be helpful to maintain an inventory of all categories of fishing vessels. Another management option that has been considered for this area is to encourage small trawlers to diversify into fishing activities that can be practised further offshore, in order to reduce overcrowding in inshore waters. However, few

⁵ Yadava, Y S (ed.). *Report of the National Workshop on the code of Conduct for Responsible Fisheries, 29-30 September, 2000, Chennai, India, BOBP Report No 90. Pages 166.*

fishermen are equipped for such ventures and there is little information on the availability of resources or the best fishing methods with which to target them.

Implementation of MFRA

A sizeable percentage of the fishing vessels operates in near-shore waters (*i.e.* within 12 nautical miles), leading to pressure on the coastal fin and shell fish resources and regular conflicts between traditional and mechanised sectors. Although, the MFRA provides zonation for different categories and sizes of fishing vessels to operate in demarcated areas, this seldom takes place due to inherent weaknesses in the MFRA.

The existing regulatory policies also restrict the fishing areas and the mesh size of gear. However, there is no monitoring and surveillance system available with the concerned implementing organizations. Voluntary compliance by the fishermen to operate in the areas allotted to them is totally absent and encroachment by the larger mechanized vessels in the areas demarcated for the artisanal craft continues. The Central Government has now proposed to introduce a Vessel Monitoring System, which is expected to resolve the problem.

Comprehensive Policy for Marine Fisheries

The existing fisheries policies in most of the coastal States and Union Territories revolve around populistic welfare measures. Though welfare measures are obligatory to sustain the artisanal sector, parallel regulatory measures also need to be evolved. In general, the country needs a strong fisheries policy and legal framework gradually shifting the priorities from fisher welfare measures to sustainable fisheries. The Government of India has set up an Expert Group to prepare a Comprehensive Policy for the Marine Fisheries. The draft policy document is under finalisation and is expected to take into account the requirements of the State towards implementation of the Code. Further, the Government of India has also constituted a Working Group of Experts to re-assess the 1991 estimates of the potential yield of marine fishery resources, to estimate the additional harvestable yield and make suggestions about conservation of fishery stocks. The report of this Working Group is likely to be made available soon.

Accountability on Catch and Revenue

At present, the fishers, including those involved in mechanized fishing, are not accountable for the catch and the revenue. The fishers need not disclose their catch and income to any government organization. Disclosure of catch and income to the DOF of State and Union Territory Governments may be made mandatory for the issuing of a licence. This system is expected to pave the way for responsible fishing and for allotting catch quotas as part of future management options.

CONCLUSION

The Ninth Plan for the Fisheries Sector has focused on an integrated approach to sustainable development and aims to optimise production and productivity, augment export of marine products, generate employment, improve socio-economic conditions of the fishermen and fish farmers, conserve aquatic resources and genetic diversity and increase per capita availability and consumption of fish. This focus shows that so far there has been emphasis on development, in other words more and more exploitation of the resources. However, the management that is often perceived as a response to development has not received the desired attention. The Code provides an excellent opportunity to integrate management with development and the following Plan of Action adopted at Chennai is expected to lead the way.

PLAN OF ACTION

- The Code of Conduct for Responsible Fisheries (the Code) should be translated into vernacular languages. A simplified and concise version of the Code should be provided to the States/Union Territories on a priority basis for translation into vernacular languages.
- The Code should be popularised through street plays, comic books, audio-visual presentations, etc. The electronic media should be considered for speedy dissemination of the Code.
- The coastal States and Union Territories should organise workshops/ meetings with various user groups for better understanding of the provisions of the Code and its implementation.
- The fishing capacity should be kept at optimum levels, commensurate with sustainability. The practice of multi-agency registration of fishing vessels, prevalent in some States, should also be reconsidered.
- The coastal States and Union Territories should consider formulating a clearer definition of access rights to the territorial waters and harmonise their zonation policy for different categories of fishing vessels.
- There should be a uniform ban on fishing during monsoon months.
- Resource enhancement programmes, such as setting up of artificial reefs and ranching with restricted access, should be undertaken, especially for species under threat or subjected to over-exploitation.
- Every coastal State and Union Territory should consider setting up a Resource Management Wing in the Department of Fisheries
- The coastal States and Union Territories should consider setting up Awareness Centres to popularise the Code and other activities concerning fisheries development, conservation and management.
- The Government of India (the Centre) and the States/ Union Territories should consider laying more emphasis on post-harvest requirements of the fisheries sector, including quality control of fish and fish products for both domestic and export markets.
- The research institutions under the Ministry of Agriculture and the State Agricultural Universities should aim at providing adequate research support to the implementation of the Code.
- The Centre and the States should endeavour to set up a sound information data base to meet the implementation requirements of the Code.
- The States and Union Territories should be provided with special assistance for implementation of the provisions of the Code.
- The Centre and the States should consider laying more emphasis on fisheries development, conservation and management aspects in the future Five Year Plans.
- The *subsidiarity principle*, which takes management to the lowest meaningful level to enhance participation, should be encouraged.

- The Centre should consider introducing model bill (s)/ legislation with the active participation of all stakeholder representatives for implementing those provisions of the Code, which are presently not covered by legislation.
- The Centre and the States/ Union Territories should consider instituting reforms in the existing legislation on fisheries to meet the requirements of the Code.
- The Centre should consider bringing all fisheries matters, now divided among various Ministries and Departments under one administrative umbrella.
- To check poaching/ illegal fishing in the Bay of Bengal, FAO/BOBP may consider setting up a mechanism to enable the Bay of Bengal countries to interact regularly.
- A regional mechanism for study tours should be encouraged among countries around the Bay of Bengal to learn from one another's experiences in implementing the Code.