

# GUIDELINES FOR THE STATES FOR FRAMING A BILL ON INLAND FISHERIES AND AQUACULTURE

## Background

Inland fisheries including aquaculture have been a vital source of food, nutrition, employment and economic gain for humanity, since ancient times. However, the sector has assumed more significance in recent years, especially in developing countries due to the large contributions to the overall fish production, nutritional security and gainful employment generation.

India is bestowed with vast and varied inland fisheries resources comprising rivers and canals (1.91 024 km), reservoirs (3.1 million ha), ponds and tanks (2.3 million ha), floodplain lakes and wetlands (0.79 million ha) and brackish-waters (1.4 million ha). Besides, substantial area amenable for coldwater fisheries exists in the medium and higher-altitudes of the Himalayan belt. Presently, the annual fish production in India has been estimated at 6.4 million tones, of which nearly 3.4 million tonnes (53%) comes from Inland sector. The contribution of fisheries sector to the total Gross Domestic Product (GDP) of the country is about 1.4 percent in which the contribution of inland fisheries is nearly 50 percent.

The accelerated pace of human interventions during the last 4-5 decades has severely impacted inland fisheries resources. On the other hand, unplanned development in some forms of aquaculture has led to adverse impact on the environment. Presently, activities pertaining to inland fisheries are regulated in most of the States through an Act, which is based on the antiquated Indian Fisheries Act of 1897. Most of the Acts promulgated by the States lack the provisions necessary for sustainable development of fisheries and aquaculture.

Recognizing the economic, social, nutritional, environmental and aesthetic importance of inland fisheries and aquaculture, the Government of India through **these guidelines** on Inland Fisheries and Aquaculture intends to ensure sustainable gainful employment in rural sector, improving the socio-economic condition of the target groups and increasing the export earnings.

Therefore, to draw the economic, social and nutritional benefits from inland fisheries and aquaculture in a sustainable manner, it is essential to adopt a judicious combination of implementation of implementation and effective regulatory framework, eco-friendly fishing and aquaculture practices with the larger involvement of the fisher communities and fish farmers.

**Since these guidelines** give directions for sustainable development and management of inland fisheries and aquaculture in the country, All concerned stakeholders are encouraged to give due cognizance effect to these guidelines while framing a legislation on inland fisheries and aquaculture.

## GUIDELINES ON REGULATIONS

### 1. INLAND FISHERIES

#### 1.1 Resources to be covered

Rivers, streams and associated waters, floodplain lakes, wetlands, reservoirs, canals, estuaries and lagoons, mangrove wetlands, backwaters, natural and manmade lakes (reservoirs) and their variants.

#### 1.2 Craft and gear

- (1) Fishing devices, such as seine and gill nets, boats (mechanized or non-mechanised), traps, spears and other implements, which are employed for catching fish are referred to as the crafts and gear.
- (2) The State or any other authorized agency by the State/Union Territory shall restrict, regulate or prohibit the use of fishing crafts and gear, which are deemed as destructive in nature so as to conserve the biodiversity in general and endangered species in particular,
- (3) The State shall adopt the precautionary approach to regulate the use of fishing gear so as to protect fish species of commercial value from over-fishing or fishing at undesirable size.

#### 1.3 Control, regulation and ban on destructive crafts and gear

- (1) The state shall not allow the use of non-prescribed gear of any kind for catching fingerlings, juveniles of larvae of fish, which affect the stock or species or are against the prescribed norms of responsible fishery, including minimum legal size of capture.
- (2) Fishing crafts fitted with out-board motors affecting the ecosystem or fish biodiversity in any form shall be regulated or banned.
- (3) Cross nets, such as stake-nets, bag-nets, etc., which encroach or affect the migratory pathways of fish and other organism, shall be regulated to facilitate conservation of brood stock and auto-stocking.
- (4) The authorized Fishery officer shall have the authority to monitor and check the type of crafts and gear that are used in open-water ecosystem for catching fish and imposing suitable penalty for violating the normal prescribed types, as mentioned under (1), (2) and (3) above.



#### 4 Untenable fishing practices in inland waters

- (1) Wanton killing of fish juveniles, fish brooders and other organisms, which otherwise have economic, aesthetic or biodiversity significance, and effects the fishery, shall be treated as cognizable offence and shall be dealt with appropriately. A penalty of Rs. 5 000 or six months imprisonments or both can be awarded depending upon the gravity of the offence.
- (2) Wanton killing of fish and associated fauna using poison of plant origin or synthetic, dynamite and any other destructive method in open shall be treated as a cognizable act, with a penalty of Rs. 10 000 or one year imprisonment or both.
- (3) Establishment or compartments or structures of any form, such as earthen embankments, bamboo screens etc. which obstruct or restrict the movement of fish in any form within the lake/wetland/estuary/lagoon, shall be deemed as cognizable offence except otherwise done in public interest.

#### 1.5 Conservation of stock and resources

(1) The State shall notify closed season or fishing holidays in open-waters like rivers/ reservoirs/ wetlands for a minimum of 60 days during breeding season of commercially important species such as Indian major carps to augment auto-stocking and wanton killing of fish juveniles as well as fish brooder stock.

[The State shall also declare the lotic sector of a reservoir including the tail end of the reservoir as highly sensitive and protected area during the breeding season and any activity which has the potential to hamper the breeding process be benned]

- (2) The State shall be prepare inventory of deep pools in various riverine stretches and ensure their protection and maintenance. These may be declared as protected areas and the active participation of fisheries, cooperatives, local panchayats and NGOs to conserve fish and other important biodiversity in such deep pools shall be encouraged.
- (3) To protect the physical entity of wetlands/ floodplain lakes, no person or body shall allowed to obstruct the lateral connectivity of wetlands with rivers, especially during flooding, as it acts the passage for the migration of fish brooders to wetlands for breeding and in turn the wetlands act as the natural nursery and feeding grounds for many important riverine fish species.
- (4) The State shall ensure that construction of dam, barrage, bundh, etc. should be preceded by appropriate environmental impact assessment and abatement especially with regard to migration of fishes.
- (5) Encroachment or reclamation of rivers, lakes and wetlands, wither for arable land or human habitation or any other purposes, which leads to colossal loss of aquatic resources and associated utility functions, shall be deemed as a punishable offence.

- (6) The State shall ensure that appropriate environmental impact assessment and abatement measures are carried out before construction of dams, barrages etc. across streams and rivers. Hydraulic structures should include devices to facilitate migration of fish species.
- (7) The State shall ensure the protection of the interest of traditional fishers using traditional crafts and gear.

**1.6 Leasing/ licensing of open-waters**

- (1) The leasing of open-water fisheries, especially the lakes, reservoirs, beels, etc., shall be done keeping in view the long-term management perspective besides sustainability of endemic biodiversity.
- (2) The lease period for a water body shall not be less than five years. However, the State shall have the right to cancel the lease in case the lessee is found wanting or proves to be guilty of violating norms or not adhering to the prescribed guidelines for sustainable fishery.
- (3) Annual rent or lease amount shall be fixed in accordance with the status of production and productivity evaluated duly following scientific principles.
- (4) Inventory, licensing and registration of motorized boats should be made mandatory to curb the unchecked growth of such crafts leading to over fishing of target species or threats to biodiversity or to water quality in estuarine and lagoon ecosystems. The State shall fix a rent on each such registered boat in accordance to the types of boats and gear, and average anticipated fish catch per boat per day.
- (5) The State shall have the right to confiscate, impose fine and ban the entry of such unregistered boats or even registered boats using destructive devices to catch fish.
- (6) Dumping of solid wastes in lake/ wetland/ lagoon area thereby reducing the effective water area besides impairing the water quality or encroachments of any kind shall be treated as an act against the State, as such punishable under the Bill.



## 2.1 Incentives for Aquaculture

- (1) The State shall consider aquaculture at par with agriculture and so much so all incentives, tax benefits concessional tariff, etc. should be extended to all aquaculture related activities.

## 2.2 Fish seed certification and inter-State movement of fish seed Certification of fish seed.

- (1) All fish seed hatcheries and fish farms shall be registered with the State/UT Department of Fisheries. All the State/UT Department of Fisheries will adhere to the standards and procedures prescribed in the guidelines in this regard.
- (2) All State/UT Department of Fisheries shall set up a Fish Seed Committee, which shall prescribe guidelines for seed certification, etc.
- (3) The State/ UT Department of Fisheries shall ensure supply of quality and disease free fish seed, and accordingly insist on certification of fish seed by the competent authority.

[Competent authority: State/ UT Department of Fisheries]

- (4) The State/ UT Department of Fisheries shall have the right/ power to enter any hatchery for ensuring the quality of fish seed produced and to examine the condition of the available brood stock and take appropriate action in the event of non-compliance of quality regulations.
- (5) Setting-up of hatcheries for banned fish species, especially species of exotic origin and which have been introduced in an unauthorized manner, shall be treated as a cognizable offence.

## Inter-State movement

- (6) Each consignment of fish seed transported from one place to another or from one State to another shall indicate the 'source of the seed i.e. name and location of the hatchery', 'type of seed', 'size of seed', 'supplied by' and 'supplied to',
- (8) The State shall have the power to check/confiscate/destroy any consignment, which lacks such details.
- (9) In the even of any dispute, especially of scientific details, the matter can be referred to any designated Referral Laboratory (such as the Central Institute of Freshwater Aquaculture, Bhubaneswar, Orissa) for arbitration.

### **2.3 Feed quality control and certification**

- (1) Each fish feed manufacturing unit shall register with the State/UT Department of Fisheries.
- (2) Feed meant for aquaculture shall be certified by the competent authority (or the designated National Institute/Laboratory).
- (3) Fish –feed bags shall be labelled indicating the ingredients used, date of manufacture, date of expiry, etc.

### **2.4 Use of chemicals, antibiotics, etc.**

- (1) No chemicals or antibiotics shall be allowed to be used in aquaculture, which have the potential to affect the environment or human health, unless otherwise essential and have been ascertained as eco-friendly or harmless by the Government.

### **2.5 Health monitoring and disease reporting/control**

- (1) Disease diagnostic and reporting procedures shall be maintained by the State/UT Department of Fisheries to monitor the occurrence of diseases in fin and shellfishes and their containment.

### **3.0 Coldwater fisheries**

- (1) Removal of sand pebbles and stones from streams, rivulets and river beds, especially from the water courses, which are used as breeding grounds by the fishes shall be considered as cognisable offence.
- (2) Destructive fishing practices or use of dynamite/poison for the purpose of fishing the streams/lakes shall be considered as cognisable offence.
- (3) Encroachment of cold-water wetlands in any form shall be treated as cognisable offence.



- (7)
- (4) Unauthorized construction of any form, permanent or temporary, of weirs, dams and bunds, and killing of fish by diversion of natural waters shall be treated as cognisable offence.
  - (5) Pollution of stream, rivulet or river water from factory effluents shall be treated as cognisable offence.
  - (6) Fishing or killing or sale of target fish species during the closed seasons shall be treated as cognisable offence.
  - (7) Catching or sale of target fish species below the prescribed size or weight shall be treated as a cognisable offence.

#### **4.0 Environmental and human health issues**

- (1) Systematic environment impact assessments (EIA) shall be made mandatory for all projects including anticipated or proposed land use patterns, deforestation or any other such development, which have the potential to affect the aquatic regimes including the fisheries adversely. Similarly, detailed EIA shall be undertaken for larger aquaculture projects (total water spread area exceeding 40 hectares) to ensure that such projects do not have any adverse impact on the environment.
- (2) Quality of fish reared in municipal sewage or wastewater shall be assessed to ensure that such fish do not pose any health hazards.

#### **5.0 Exotic species**

- (1) The State shall not permit the culture or breeding of prohibited exotic species and any contravention of this provision shall be treated as a cognisable offence.
- (2) The State shall ensure that no exotic species enter the open-waters, such as rivers and their continuum so as to protect the endemic fish germplasm.
- (3) The States shall strictly enforce the quarantine norms to contain spread of disease from one region to another or from one State to another.

## GENERAL GUIDELINES

### 6.0 Responsible fisheries and aquaculture

- (1) The State shall ensure that the provisions of the 'Code of Conduct for Responsible Fisheries of the Food and Aquaculture Organization' of the United Nations are implemented with suitable adaptation, wherever necessary.

### 7.0 Domestic marketing of fish

- (1) The State shall ensure hygienic handling, transportation and storage of fish and fish products for domestic marketing.

### 8.0 Institutional support

- (1) Credit facilities and other market/non-market based incentives for fishing, aquaculture, marketing, processing and exports shall be considered in the light of WTO regime.

### 9.0 Inter-departmental coordination

- (1) It is important to have an interdepartmental (irrigation, agriculture, fisheries, commerce and others) coordination committee at various states starting from sharing of resources, production and marketing of fish.

### 10.0 Stakeholder participation

- (1) Comprehensive and enforceable rules and regulation shall be developed through participation of stakeholders, NGOs, Self-Help Groups and consumers.

### 11.0 Conservation and stock enhancement

- (1) The State shall prepare inventories of fishing crafts and gear and adopt precautionary approach for fisheries management.



- (2) The State shall initiate necessary steps for mass awareness programmes among the locals in general and fishers in particular towards the Importance of conservation of aquatic habitats and biodiversity.
- (3) The State shall initiate river ranching with fish seed bred from riverine fish stocks to supplement the depleted stock of commercially important fish species.
- (4) The State shall monitor and keep a strict watch on the point sources of pollution in rivers and other open waters which affect the ecosystem quality and biodiversity, and enforce the Polluter-Pays principle.
- (5) The State shall liaison with concerned Ministries/Departments ensure for environmental flows in streams/rivers.
- (6) The State shall ensure minimum required level of water in reservoirs, beels and other lentic water bodies especially during lean season for the safe maintenance of biotic communities including fish and fisheries besides the water quality.
- (7) The riparian States shall adopt a coordinated approach for management of river systems.
- (8) The State shall ensure maintenance of rich aquatic biodiversity status of wetlands by enacting suitable laws to punish the violators.
- (9) The State shall ensure the protection of ecologically fragile and sensitive areas declared by the Central or the State Governments.
- (10) The State shall not allow indiscriminate use of ground water for aquaculture
- (11) The States shall encourage recycling of water in fish seed hatcheries and grow-out systems.
- (12) The State shall popularize integrated farming practices with agriculture, animal husbandry and horticulture to allow optimization of per hectare yield besides gainful utilization of wastes from one or the other source.
- (13) The State shall develop suitable programmes for bringing the available saline alkaline lands under aquaculture.