



FISH AND FISHERIES

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SEMINAR ON 'FISHERIES - A MULTIBILLION DOLLAR INDUSTRY'

The inaugural function of the Seminar on 'Fisheries - a multibillion dollar industry' was held on 17th August 1995 at the Taj Coromandel Hotel, Madras. Shri K. Chidambaram, Chairman, Fisheries Technocrats Forum presided over the function. Honourable Union Minister of State for Agriculture and Non-conventional Energy Sources, Shri S. Krishnakumar delivered the inaugural address and declared the Seminar open. He expressed in his inaugural speech the importance of Aquaculture which earns a sizable amount of foreign exchange and he congratulated the Aquaculture Foundation of India and the Fisheries Technocrats Forum, Madras for organising the Seminar. Dr. M. Sakthivel, President, Aquaculture Foundation of India welcomed the distinguished guests and delegates. Shri K. Chidambaram gave the Presidential Address and the text of his speech is reproduced below:

Fisheries is a state subject and fishing and fisheries beyond the territorial waters are in the Union List (item 57). The Constitution also gives proprietary rights for anything of value underlying the ocean within the territorial waters, the continental shelf or the EEZ of India. The Central Government exercises a coordinating role in respect of fisheries programmes.

At the central level, the Ministry of Agriculture, through its Fisheries division, is vested with the power of fisheries administration. It formulates the strategy of the national development plan for the fisheries sector, issues policies for fisheries resource management and fishing industry development, and provides technical and financial assistance in fisheries development to various states.

In October 1988, the Ministry of Food Processing Industries took over the Marine Fisheries Sector relating



'Formulation of a realistic fishery development policy in the country has always been a difficult and complex matter due to uncertainties surrounding natural resources, potential markets, and the interdependence of fishery sector with other segments of the economy.

to development, and the institutions directly connected with research on marine fisheries, plans and programmes like, inshore fisheries, deep sea fishing, processing and product development and training. Inland fisheries and fisheries research institutions continue to be with the

Indian Council of Agricultural Research under the Ministry of Agriculture.

Management

The principal objectives of the State Directorates of Fisheries are to plan and develop the infrastructure and facilities of landing and berthing, distribution and marketing of fish; to extend financial assistance and coordinate the programme for supply of the equipment; provide training and improve the economic well being of the fishermen. To achieve these objectives various State Directorates of Fisheries and the centre have initiated different schemes relating to:

- (i) Mechanisation of fishing crafts;*
- (ii) Development of inland fisheries;*
- (iii) Processing, storage, and transport;*
- (iv) Provision of landing facilities, and*
- (v) Welfare and other miscellaneous programmes, like water supply, housing, education, insurance, etc.*



Research and Training

To provide a strong base for development of fisheries in India, several Research and Training institutions have been established in the country under the Ministry of Agriculture and ICAR. These institutions are engaged in various research, education and training fields for the promotion of the fisheries activities.

Fisheries Legislation

Under the enabling provision of the Indian Fisheries Act 1897, various states and Union Territories have introduced fishery legislations. Since most of them come within the legislative competence of the states, individual states have enacted laws and rules. As might be expected, these laws were enacted to suit local demands and conditions and lacked uniformity. The sedentary fisheries like chanks and pearl oysters were declared as Crown Monopoly in the

Gulf of Mannar and in the Gulf of Kutch. The Regional Fishing Game Associations promulgated rules and regulations with regard to Cold Water Fisheries like Trout and Mahseer.

Under the Maritime Regulation Act, the Government of India requested the Maritime States to frame rules for regulations of fishing to protect the traditional fishermen from the mechanised fishing vessels, and the operation of large fishing vessels.

The Maritime Zones Act 1981 makes special mention of the Coast Guard in the enforcement of certain provisions of the Act whose area of operation is normally beyond the territorial waters. While the Coast Guard could not be of assistance in the enforcement of the provisions of the Marine Fishing Regulation Acts by the State Government, the common property character of the ocean living resources has lost significance to a large extent by the establishment of the regime of Exclusive Economic Zone. The convention of the law of the seas gives the responsibility for the proper management of the fishery resources to the Coastal States. It becomes necessary to have a Fishery Protection Service on the lines of Forest Guard and Customs Guard for the enforcement of provisions of Marine Fishing Regulation Act, conservation measures etc. A Model Draft Fisheries Act was presented to the Ministry of Agriculture in April 1993 by me.

Conservation Measures

Management measures in marine fisheries include both promotion and conservation. So far India has been taking mostly promotional measures. With the indications of over fishing of stocks, it is time the country considered seriously enforcing some conservation measures in the larger interest of maintaining the yield at maximum sustainable level, on overfishing, size, regulation, quota etc., by registration and licensing of all categories of craft. Marine National Parks are being organised in the Gulf of Mannar and the Gulf of Kutch, and also sanctuaries. The measures for management and organisation of these areas require to be examined in detail.

Recognizing the urgent need and importance for identifying investment opportunities in the fisheries sector, creating awareness of the importance of rational fisheries management and optimal sustainable use of both marine and inland fisheries resources, this Seminar will provide an attractive opportunity for those interested and involved in investment options and management programmes in fisheries sector throughout the country.

- (i) Aquaculture.*
- (ii) Capture Fisheries.*
- (iii) Fishery Management.*
- (iv) Processing Marketing and Financing.*

The seminar programme will include panel discussions led by specialists in the respective fields, case study presentations, state-of-art discussions and review of findings regarding applicability to the end users.

It will be in the interest of the Fisheries to evolve a National Fisheries Policy with effective strategy and priority for administration, management and development. My colleagues and I will be able to be of assistance in the implementation of National Fisheries Policy."

Dr. P.V. Dehadrai, Deputy Director General (Fisheries), ICAR, New Delhi gave a keynote address and special addresses were given by Mr. S.K. Kalia, Managing Director, NABARD, Bombay and Dr. George John,

Director, Department of Bio-Technology, New Delhi. Mr. R. Kothandaraman, Vice-President, Aquaculture Foundation of India proposed a Vote of Thanks. The function came to an end with the National Anthem.

The Technical Sessions began in the afternoon of 17th and concluded on 19th August 1995. The Seminar was attended by 211 participants including 5 foreign experts representing Taiwan, Japan and FAO. There was a special address by Shri K.V. Thangabalu, Honourable Union Minister of State for Social Welfare during one of the Technical Sessions. The papers presented in 7 Technical Sessions were discussed and general recommendations were made.

FISHERIES LEGISLATION IN INDIA

Law-making in fisheries, which should be aimed at National exploitation and conservation of living resources of our seas, rivers and other water bodies and also regulation of aquaculture, has made very little progress in India. Whatever legislation has been made so far, is largely due to socio-political compulsions and global developments such as UN Law of the Sea Convention. You will be surprised to know that there is no law to regulate fishing by Indian companies in Indian Exclusive Economic Zone. Even Govt. aided fishing companies do not furnish catch and effort data, so vital for fisheries management. Some states have not enacted any law to regulate fishing in coastal waters which is within their jurisdiction.

The Nilgiris Game and Preservation Act 1879 was perhaps the oldest legislation relating to fisheries in India. The Indian Fisheries Act, 1897 empowered states to enact Regulations for regulating fishing in their respective jurisdiction. Following this, most states enacted fisheries laws for regulating fishing for fin fish, pearls, clams etc. thereby conserving these resources for the future. Though most of these enactments are still valid, no comprehensive law was forthcoming until the 3rd United Nations Conference on the Law of the Sea Sessions, 1973-77.

The Territorial Waters, continental shelf, Exclusive Economic Zone and other Maritime Zones of India Act, 1976, was the first comprehensive law that followed UN Law of the Sea Conference. This mother law, from which a number of enactments were to follow, defined the various maritime zones and extended India's sovereignty from the erstwhile 3-mile zone to 200 miles. The Maritime Zones of India (Regulation of Fishing by Foreign Fishing vessels) Act, 1981 was the first Act to flow from the mother Act of 1976 and was concerned with fishing by foreign fishing companies directly or through Indian companies (by chartering) in Indian Waters beyond the

12-mile territorial waters (Exclusive Economic Zone). Then, what about regulation of fishing by Indian companies and others in the 12-mile territorial waters and 12-200 mile exclusive economic zone?

For regulation of fishing in the territorial waters which is within the jurisdiction of the States, the Central Govt. drafted a model Marine Fishing Regulations and circulated all states exhorting them to enact suitable laws. While the states of Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu and Orissa promptly enacted MFR, Gujarat, Andhra Pradesh, Pondicherry and West Bengal are yet to make laws in this regard. Andhra Pradesh has however issued executive instructions in this regard. The main theme of MFR is general demarcation of exclusive fishing zones for different fishing sectors, viz. the traditional non-mechanised sector (3 miles or 5 km from shore, 10 km in AP), the mechanised boats sector (beyond 5 km, upto 10 km in Kerala) and the larger vessels sector, 20 m or 25 GRT (beyond 12 mile or 23 km).

The Maritime Zones of India (Regulation of Fishing by Indian Fishing Vessels) Act is in the making, for regulation fishing by Indian Fishing vessels in the 12-200 mile EEZ. The author had the good fortune of serving as the member-secretary of the Expert Committee constituted by the Govt. of India for drafting this Act.

Even the United Nations Convention on the Law of the Sea (UNCLOS), 1982, to which India is a signatory, could not come into force so far, though most of the coastal nations have already extended their jurisdiction to 200 miles. The Convention is expected to come into force by end of this year, 12 months after the deposit of 60th instrument of ratification.

T.E. SIVAPRAKASAM
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WHITE SPOTS - OF BACTERIA ?

Yes. Recently in Pulicat area, I found such tragedy in few farms. I want to give a short information about that disease. The disease is confirmed as BACTERIAL WHITE SPOT by C.P. group's technical experts and of King's Group. All the three victims were attacked between

January '95 and September '95. It indicates that there is no any particular reason for occurrence of this disease. I am hereby submitting some clinical signs, symptoms and causatives for your attention.

SYMPTOMS	CLINICAL SIGNS	SURVIVAL AFTER DISEASE	CAUSATIVE FOR OCCURANCE OF BACTERIA	TREATMENT
White patches on carapace	Lower consumption Inactive shrimps, 1-2% mortality	60 days up to harvest size	Higher stocking @ 17 piece/1m ² . Poor water management during moulting. Higher F.C.R.	O.T.C. (oxy-tetra cycline) and Vitamin-C in feed.
White spots on carapace and also on abdominal segments Slight protrution on the white patches	Lower feed consumption 2-4% mortality Oxygen depletion	40 days upto harvest size	Filamentous algal decomposition in higher extents lead to growth of such Bacteria (and) De-circulation of pond bottom due to nonprovision of aeration and low water exchange. Higher F.C.R. Higher dosage of inorganic fertilisers which lead to more planktonic residues on pond bottom and long period application of fish meat.	O.T.C. and Vitamin-C mixed with artificial feeds.
Pale white spots on carapace and abdomen	Oxygen depletion	Pond harvested after occurrence of disease	Chlorination of very high dosages (upto 600 ppm) lead to algal death on pond bottom and stunted productivity of pond bottom due to which lower oxygen content and bacterial white spots. Algal decompose catalised such bacteria to arise after dechlorination	None of any remedies taken.

Conclusion: In all these cases the main cause is the farmers are requested to take stringent measures against pond bottom deterioration due to higher application at them.
chemicals, feed and poor water quality management. Hence

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Condolence

We convey our deepest condolences to the bereaved family of Dr. Arun G. Jhingran, former Director of Central Inland Capture Fisheries Research Institute who died suddenly on 13th July 1995 at Bangalore due to massive heart attack.

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HEARTIEST DIWALI GREETINGS

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