



# FISH AND FISHERIES

NEWS LETTER OF THE FISHERIES TECHNOCRATS FORUM - MADRAS

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## MARINE FISHERIES - ADMINISTRATION AND MANAGEMENT\*

### Administration

Fisheries is a state subject under Item 21 of the State List of the 7th Schedule of Article 246 of the Constitution of India. However, fishing and fisheries beyond the territorial waters are in the Union List (Item 57). Article 257 of 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. Hence matters relating to fisheries development, particularly of marine fishing within the territorial waters, are largely within the purview of the State Government and fishing beyond the territorial waters comes directly within the ambit of the Central Government. According to Article 297 of the Constitution, the Central Government exercises a coordinating role in respect of fisheries programmes. 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 to development and the institutions directly connected with marine fisheries, plans and programmes like inshore fisheries, deep sea fishing, processing and product development and training. All Central fisheries research institutions continue to be with the Indian Council of Agricultural Research.

### Management

Various State Directorates of Fisheries have different schemes relating to: (i) mechanisation of fishing crafts to exploit offshore and deep sea resources, (ii) development of inland fisheries; (iii) processing, storage, and transport; (iv) provision of landing and infrastructure facilities, and (v) welfare and other miscellaneous programmes.

\*Reference: IIM (AHD) - Report - 1989

### Research and Training

To provide a strong base for development of fisheries in India, several research education and training institutions have been established in the country.

### Fisheries Legislation

Under the enabling provision of the Indian Fisheries Act 1897, various States and Union Territories have enacted laws and rules. As might be expected, the laws were enacted to suit local demands and conditions. The sedentary fisheries like chanks and pearl oysters were declared as State Monopoly in the Gulf of Mannar and in the Gulf of Kutch. The Regional Fishing Game Associations promulgate rules and regulations with regard to Sport Fisheries like those of Trout and Mahseer.

The Government of India requested the Maritime States to frame rules under the Maritime Regulation Act for regulation of fishing to protect the traditional fishermen from the mechanised fishing vessels and the operation of large fishing vessels. All the State Governments, except Gujarat, framed rules restricting the operation of mechanised fishing vessels upto 3 to 5 nautical miles from the coast, times of fishing and the migration of mechanised fishing boats.

While the Coast Guard has been apprehending poaching by foreign vessels etc., by its statutes and nature of operation they could not be of assistance in the enforcement of the provisions of the Marine Fishing Regulations 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 who need to have a Fishery Protection Service for the enforcement of provisions of Marine Fishing Regulation Act, conservation measure etc.



## 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 suitable conservation measures. Establishment of Marine National Parks and sanctuaries, and suitable extension activities deserve priority consideration.

In view of the rather nebulous situation existing in the country regarding rational and balanced fishery development, it is high time that a realistic fishery development policy be formulated, taking into consideration the constraints caused by uncertainty relating to natural resources, potential markets and interdependence of the fishing sector with other segments of economy.

— K. Chidambaram

## SCOPE FOR INTEGRATED DEEP SEA FISHING JOINT VENTURES

It has been estimated that nearly 5 million t of fish can be exploited from nearly 2.4 million sq. km. of the Exclusive Economic Zone of Indian seas. The present production is of the order of 1.5 million t from 0.18 million sq. km, accounted mainly by the non-mechanised traditional crafts and small mechanised vessels. Adequate information on the existence of fish stocks like tunas, deep sea shrimps, lobsters, squids and cuttle fish, in the EEZ for commercial exploitation, is available.

Tunas form a major constituent of the deeper areas of EEZ and the Indian Ocean, exploited by long liners. Provisional estimates indicate that about 240,000 t of tunas would be available for exploitation, 60% of which would be around Lakshadweep and Andamans group of islands, and the rest in the deeper areas off the mainland. However, the current catch amounts to about 20,000 t only.

Unexploited grounds for deep sea prawns such as *Penaeopsis rectacuta* and *Aristeus semidentatus* and deep sea lobsters such as *Puerulus sewelli* are reported to exist on the continental slopes of both the east and west coasts of India, capable of being exploited by demersal trawls.

Rich grounds for deep sea squids like *Loligo duvaucelli* and *Sepioteuthis lessoniana* and cuttle fish such as *Sepia pharaonis* and *S. aculeata* are also reported on the continental slopes of both the coasts and there is considerable scope for commercial exploitation of this fishery by jigging.

With the declaration of the exclusive economic zone by the different countries of the Indian Ocean region, a decline in the fishing pressure by the foreign deep sea fishing vessels has already begun. Leading fishing nations are willing to assist the countries bordering the Indian Ocean to exploit the deep sea fisheries.

Tunas, squids, cuttle fish, deep sea lobsters and prawns are the high value fishes which have grown to major

importance in the world market, in the context of the limitations on the supply of the traditional varieties. The major markets for these items are the U.S.A., Japan and Western Europe. According to FAO, the global demand for these products will increase to more than 10 million t by the year 2000 and the present world production may not keep pace with such a market potential. There is therefore, a vast scope for the expansion of India's export market for the deep sea products.

The main constraint which has been retarding investment for commercial deep sea fishing in India is the lack of knowledge of suitable deep sea fishing vessels rigged with improved fishing systems, the technology of advantageous utilisation of the different types of fishery resources in the manufacture of high value products for export to world markets as well as the extent of economic viability of such a venture.

With the withdrawal of viable foreign fishing fleets from the Indian EEZ, it is possible for the country to have tie up with the foreign countries who have been exploiting the deep sea fishery resources in the region and who have the expertise, surplus fishing vessels, technology and markets, in order that the pace of deep sea fishery development is accelerated as in the case of other developing countries like South America, Africa and South East Asia.

The Govt. of India have taken measures to encourage Indian entrepreneurs to establish Joint Ventures with foreign collaboration for viable commercial exploitation of deep sea resources and manufacture of marine products for 100% export, with a provision of initially leasing foreign deep sea fishing vessels for establishing the commercial viability – with ultimate aim of acquiring the same or other vessels of improved designs after the lease period. A 100% export oriented unit (EOU) is deemed as an industrial undertaking offering for export its entire production including the permitted level of rejects. A minimum foreign exchange



value addition of 20% for processing and 40% for deep sea fishing projects is necessary. Units intending to set up projects under the scheme should apply to Entrepreneurial Assistance Unit, Secretariat for Industrial Approvals, Udyog Bhavan, New Delhi-110 011. There is a wide range of concessions available under this scheme, which are listed below :

- i. Exemption from import duty for capital goods, components, raw materials, spares, consumables, office equipments and material handling equipments.
- ii. Exemption from Central Excise Duty for indigenously produced capital goods, components and raw materials and finished products.
- iii. Selling of rejects upto 5% in domestic tariff area on payment of import duty on indigenous inputs and on the rejects.
- iv. Selling of 25% of production in the domestic market subject to licences and payment of import duty.

- v. Exemption from C.S.T. for goods supplied by the units in the domestic tariff area to a 100% E.O.U.
- vi. The finished products of 100% E.O.U. are exempt from Central Excise Duty.
- vii. Priority for 100% E.O.U. in matters connected with procurement of raw materials, power, clearance for foreign exchange payment, import of capital goods etc.
- viii. Cash compensatory support at rates prescribed by Govt. from time to time, if only 75% of production is exported.

— A.T. Shariff

Note: A recent Govt. release stipulates that E.O.U. and those located in export processing Zones will be able to make sales in the Domestic Tariff area with 50% customs duty on the goods or the excise duty payable thereon, whichever is higher.

— Ed. Comm.

The Department of Environment, Forests and Wildlife (Ministry of Environment and Forests) has notified that the Coastal Regulation Zone concept has been declared by the Govt. Under this regulation specified restrictions have been imposed on the setting up and expansion of industries, operation or processes etc. in the coastal stretches of seas, bays, estuaries, creeks, rivers and backwaters which are influenced by tidal action up to 500m from the high tide line and the land between the low tide line and the high tide line.

#### Fisheries Development Vs Environment - Where is the borderline?

If you have any concrete answer to this burning issue, please send your reactions. We plan to have a regular column on this topic in our quarterly News Letter.

#### Would you like to share your experience?

We invite short case studies relating to any branch of fisheries science, which would be of interest to entrepreneurs and investors.

## FISH AND CHIPS

- ★ A recent national seminar on environment recommended to the Indian Government that the right to the environment be made a fundamental right and the environment protection be included in the concurrent list of the Constitution.
- ★ The Tamil Nadu Government has plans to implement two aquaculture projects on 150 ha in Palk Bay at a cost of R. 13.88 crores and 50 ha at Tharuvaikulam in V.O.C. District, at Rs. 2.2. crores.
- ★ The Tamil Nadu Fisheries Development Corporation is proposing to set up an aquaculture estate over 200 ha of land in Ramanathapuram District. This estate will have more than 50 ponds of about 1 to 2 ha each, which would be available for 50 entrepreneurs to pursue shrimp and prawn farming.
- ★ A recent newspaper advertisement titled "Aquafarming without a Ripple" indicated that India's largest totally integrated sea water aquafarm (about 550 ha, with water spread of app. 200 ha) will have an estimated annual production of 2,500-3,000 tons.
- ★ Researches conducted at the University of Pennsylvania School of Medicine at Philadelphia have resulted in the extraction of materials from the shark's stomach linings, which contain a rather unusual molecule that acts as a broad spectrum antibiotic. This has been named as 'Squalimine', after the spiny dogfish shark, *Squalus*.

- ★ The sea squirt (type, sea grape), has strange secrets including organs full of human like kidney stones and quite a few microbes.
- ★ The Indian Coast Guard has apprehended about 400 vessels poaching in Indian territorial waters in recent years.
- ★ One has to strike a balance between the positive and negative factors in any development process and the ultimate thrust should be on sustainable development.
- ★ There is need to control degradation in any development process. If we fail to do this we will be only hastening the process to create a condition in which we cannot live
- ★ In just one year, mankind expends an amount of fossil fuel that took nature over a million years to produce.
- ★ A dustman of Liverpool, U.K., found a metre-and-a half shark nestling between empty tin cans dumped in a street.
- ★ Sea food exports from India have registered a growth during 1993-94. Shipments touched 2.24 lakh tonnes, valued at Rs 2,320 crores. As compared to previous year, quantity wise increase was 7%, while value wise rise was 31%. Unit value increased to Rs103.75 per kg from 84.73 per kg.
- ★ Studies undertaken by the Tamil Nadu Pollution Control Board show that pollution levels along the coastal zones of the State have been found to be on the rise as a result of indiscriminate disposal of untreated wastes and hazardous chemicals from Industries. The presence of toxic chemicals, particularly of heavy metals-cadmium, lead or mercury compounds - has been increasing substantially in the coastal waters.
- ★ Five patrol boats, at Madras, Mallipattinam, Rameswaram, Tuticorin and Kanyakumari, are likely to be provided to enable effective implementation of the Tamil Nadu Marine Fishery Regulation Act.
- ★ The Comptroller and Auditor General of India has recently referred to lack of integrated fishery development in the country due to the multiplicity of agencies dealing with the development of fisheries.
- ★ Plaices are helping scientists to fathom out the secrets of marine life according to U.K. experts. Electronic tags attached to the fish provide information on migration and fish stock distribution and can store for more than five years about 30,000 records collected over a period of nine months in the sea for retrieval.
- ★ A sea weed growing around hot spring outlets on the Japanese coast which could help control global warming by absorbing large quantities of CO<sub>2</sub> has been found by scientists in Japan. This could be used in the fight against acid rain as a tool in the disposal of flammable gases.
- ★ The Aquaculture Foundation of India, an organisation to allay widespread misconceptions about the impact of aquaculture on environment and rural population and to promote private initiative for technological advancement and sustainable development of aquaculture has been recently formed.

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