

Fishery Development & Administration in India

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The importance of fisheries administration in effective planning and successful execution of fisheries development programmes need not be over-emphasised. Fishermen are backward and form a neglected community in most of the countries in the Indo-Pacific region. They have been accustomed to traditional practices and it is, therefore, essential that the administrative organisations have to do a lot of preliminary work and bring home to the fishermen — the primary producers — the advantages of organisation and implementation of co-ordinated and integrated fisheries projects and also the benefits of technological improvements and provide finance and credit ; the administrative organisation have to serve as a friend, philosopher and guide. In a subsistence economy like fishing one has to follow a variety of occupations in order to satisfy most of the needs of the fishermen and the industry. In other types of economy, viz. exchange economy, one follows a single occupation and satisfies his other needs by selling his own products and buying products of others. In a subsistence economy nearly all the members are engaged in production and collection of food. Therefore, to achieve better returns, a high degree of planning is essential for fishing industry.

Organisation of Industry

Under the constitution of India, the subject of "Fisheries" is included in the list of State responsibilities ; "fishing and Fisheries in extra territorial waters and Fisheries Research" are however, the direct concern of the Union Government (Federal Government). In addition, the Union Government coordinates fisheries work in the State and exercises a considerable amount of supervision of the developmental and other aspects of Fisheries. The Central Government provides technical and financial assistance to the State Governments and to fishermen, fishery cooperatives and industry. The Government agencies handle exploratory fishing, leaving commercial fishing to the private sector.

The fisheries work at the Central Government is handled in the Ministry of Food and Agriculture and on the technical side — the Fisheries Development Advisor is in charge of this work and his functions are among others, to advise the Government of India on all matters relating to development of and research on fisheries. He supervises work of the Central Institutes like the Marine Fisheries Research Institute, Inland Fisheries Research Institute, Institute of Fisheries Technology, Deep Sea Fishing Stations, Institute of Fisheries Education and Operatives Training Institute. He is also responsible for coordinating fisheries work of the State Governments. He is assisted by a team of

technical officers at the headquarters. Each of the Central Institutes is under the charge of a Director and the technical staff of these institutes include scientific and technical officers who are specialised in many branches.

There is a great diversity in the organisation of Fisheries Departments in the States in India. In Gujarat, Maharashtra, Mysore, Kerala, Goa, Orissa and West Bengal, there are Directorates of Fisheries in charge of technical officers as also in the States of Assam, Bihar, and Kashmir. But in certain other states like Madras and Andhra Pradesh, though there are Directors of Fisheries they are under civil administrative officers. In other States like Uttar Pradesh, Madhya Pradesh, Punjab and Rajasthan, they are part of either Animal Husbandry or Agriculture Department.

The nature of duties of the administrative staff in these departments relate to the activities which are direct such as supply, organisation, coordination, finance and regulations and which are of indirect nature, viz., research surveys and intelligence.

Survey and Appraisal of Fishery Situation

India has considerable marine and inland fishery resources. Judged by the fact that there is a coastline of about 3000 miles, a continental shelf from the shore to the 100 fathom line, of more than 100,000 sq. miles with the two wide arms of the Indian ocean, the Bay of Bengal and the Arabian Sea and a large number of gulfs and bays along the coast, the marine fishery resources of India are fairly extensive. Similarly the extensive backwaters, tidal estuaries, lagoons and swamps scattered along the entire coastline and a large number of rivers, lakes, reservoirs, tanks and ponds, most of which though culturable are not utilised to the full extent, form a rich potential source of inland fisheries. The principal rivers of India including the main tributaries have a total length of about 17,000 miles and canals and irrigation channels about 70,000 miles.

The objectives of Government fishery policies may be summarised as under :

- (i) In order to have physical conditions for fishery development, the basic resource, the fish stocks in the sea or the inland waters must be absolutely large. A factual and objective assessment of marine and inland resources is the fundamental pre-requisite and must receive high priority.
- (ii) The present methods of fishing must be improved and adopting modern methods. At present the fishermen's knowledge about fishery and the equipment used by them are deficient. There is lack of adequate boats, lack of mechanical power to operate boats and fishing gear and efficient methods of capture, handling, processing, and distribution of fish. Substitution of the present method by more modern and efficient methods of capture, processing and marketing of fish is the other important objective.
- (iii) In view of the large number of fishermen operating small vessels along the entire coastline, it is necessary to save them from exploitation by middlemen by organising fishery co-operatives. The cooperatives should offer credit facilities to the fishermen, meet their business requirements and market their

catches. In addition cooperatives can perform important roles in other spheres as well, such as education, training, provision of various welfare services, safeguarding occupational interests etc. Once the processes of social and economic change gather force and fishermen attain higher levels of skills and productivity cooperation has to meet larger and complex demands. Another important objective of Government policy should be to develop the co-operative organisation among fishermen in tune with new needs and possibilities.

Owing to high risks involved, capital available for fishery financing is usually not very substantial. Education in the methods of dealing with risks and the provision of insurance facilities would greatly improve the situation. From this, fundamental improvement in fishery finance depends on the transition from the middlemen system to co-operative system. Major capital outlay can, however, be financed only by Government and large industrial undertakings.

Research

At present in India, there are three Central Research Institutions, viz., the Central Marine Fisheries Research Institute, the Central Inland Fisheries Research Institute and the Central Institute of Fisheries Technology. Six Offshore Fishing Stations have also been established for exploratory offshore fishing. Some of the State Governments have also research stations, where research on problems of local interest to the State, both biological and technological, are undertaken.

Administration and Technical Personnel

In India fisheries science is, unlike agriculture, largely a new and unfamiliar discipline. In Japan, Norway, Great Britain, United States etc. to mention only a few instances, fishing and fishery industry have been organised and developed by private enterprise in the course of several generations. In these countries Governmental intervention followed in response to the needs of the industry, which have set a pattern for training and assistance from the public sector. But even amongst the countries mentioned above, Japan may be cited as an example of forth-right governmental assistance in which establishment of training institutions played a major role in the modernisation of fishing industry. It was recognised that achievement of that conversion in step with other changes would call for intensified programme of training and research. Thus Japan happens to be the foremost fishing industry in the world and the country with the greatest net-work of fisheries research institutions, fishery schools and colleges and universities.

It has been recognised in India that if pace of development is to be accelerated in an effective manner, governmental intervention will have to come in forcefully at a stage of development, much earlier than was necessary in the countries where fisheries are now well established. One of the most striking forms of governmental assistance on a national scale, is to provide facilities for training of personnel at various levels. A special Committee was constituted by the Government of India in June, 1958, to review and assist the training requirements for fisheries personnel to man the administration, executive and research projects in India and to examine the needs for higher or ancillary facilities. The

Government of India have now established two training institutes, one for fishery management and administration and another for operatives.

At present a number of fisheries extension units have been established by Government of India for extending the results of fisheries researches on the field. It is proposed to establish at least one such unit in each of the States in India.

With the promotion of schemes for development of fisheries — both marine and inland, it is important to have proper management of fishery resources and their utilization. Such a programme will call for close coordination and integration with the development of fishing ports, transport and communications, cooperative marketing, promotion of ancillary industries and development of programmes in river valley projects, river systems and irrigation tanks. The need for conservation of inland fishery resources and regulation of fishing methods, both in marine and inland, is to be applied on the basis of extensive studies and researches — mainly for conservation of the fishery resources.

Development

For developing marine fisheries, efforts are being intensified towards mechanisation of fishing crafts, supply of fishery requisites, provision of facilities for landing, preservation, transport and marketing and for training. In developing inland fisheries, schemes relating to survey of cultural waters, investigation of spawn, fry and fingerling resources are being taken up. In addition, large water areas will be brought under fish culture by improved methods of preparation of ponds, stocking, management etc.

Fisheries schemes in the Third Five Year Plan in India have been formulated with the main objective of increasing production, location of future resources and improvements in the existing channels of distribution. Due consideration has also been given towards the need for effective improvement in the socio-economic conditions of fishermen. Emphasis has also been placed on development of export trade.

The value of increasing food production has assumed great importance and the Government of India has been stressing the need for increasing the scope of producing more and more food. Fish is one of the best and cheapest protein-rich supplementary foods and hence the importance of this sector. The time lag between investment and return in this sector is quite short, which is an added advantage. Further, other factors which were taken into account for giving priority for fisheries development are that the fisheries is a labour-intensified industry and therefore will result in an increase in employment; that it would reduce the hunger to some extent by encouraging a geographical transfer of labour from land to sea; that it would lead to the development of certain backward regions along the coast.

Exploitation of fisheries beyond the coastal areas would be possible through large scale mechanisation of fishing operations and proper handling of catches in an organised manner. Small scale mechanisation will be well within the resources of fishermen, either through their own efforts or through cooperative organisations and with Government subsidies. The management of large fishing fleets capable of long distance operations and

related aspects of preservation, landing, distribution and marketing involve much capital with skilled management and technical supervision. To be successful, commercial fishing should be undertaken by corporations — either public sector or private sector, capable of using modern fishing vessels and machinery for catching, preservation, processing and distribution. Such an enterprise calls for financial assistance, mostly from Governmental source in underdeveloped countries. In the most developed fisheries, the modernisation of equipment and facilities and promotion of large scale undertakings had depended on Government credit and subsidy. Credit schemes have been extended or new ones introduced in Europe, United States, Canada and Japan. Similar financial assistance as credits and finance are given in the Indo-Pacific region. Certain relief from payment of duties are also being considered by the Governments for promotion of this industry. It is necessary to regulate production, utilisation, distribution and marketing of fish and fish products in the early stages of development and also provide adequate financial assistance, technical guidance and trained personnel for administration of the various sectors of fishing industry.