## FISHERIES OF THE WEST COAST OF INDIA

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## FISHERIES EXTENSION SERVICE IN INDIA

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THE principles of extension have been practised for many years in countries with a highly developed commercial fishing industry. In this country however, it is a pioneer venture, with few guide lines to go upon. Fisheries Extension Programme is being organised here, for the first time, with due consideration of the administrative and technical requirements of different States and regions. 'Fisheries' being a State subject, the State Fisheries Departments are responsible for all aspects of fisheries development work, including fisheries extension in connection with inland and onshore fisheries. As a 'concurrent' responsibility of the Central Government, however, the Central Fisheries Research Stations have been undertaking a major part of fisheries research and investigations.

In view of the somewhat inadequate personnel available for fisheries work in the States and also in view of the fact that increasing tempo of fisheries development work brings up numerous problems for investigation by the Central Research Stations, it was decided to set up a Central Fisheries Extension Organisation for carrying the results of experiments and research to the acid test of practical use in the field. This Organisation is expected to help the State Fisheries Departments in demonstrating improved techniques, developed by research, in connection with fish farming, improvement and reclamation of culturable waters, fishing gear, fishing methods and fish processing and for promoting fish marketing and co-operation. It is also to render advice to fish farmers, fishermen and fish trade in order to increase production and promote better utilisation of fishery resources.

In addition to numerous enquiries for information on improved fishery techniques, requests were received from several States, deficit in fish seed resources, for the supply of fry and spawn of suitable species for fish culture. The first Fisheries Extension Unit, established at Calcutta in 1953, has arranged to supply an increasingly large number of selected fishseed to various States and also some neighbouring countries. Beginning with

about 90 lakhs in 1953, this Unit supplied over 220 lakhs of fry and spawn in 1958, thus making a very material contribution to the development of pond fisheries in different parts of the country. It also developed techniques for transport of fishseed in specially designed plastic bags. Practical training and demonstrations in connection with improved methods of fish culture and control of weeds have also been given to fish culturists of West Bengal and fishery trainees from other States.

In view of the fact that conditions and fishery problems vary to a very marked degree in different parts of the country, seven more Fisheries Extension Units have been recently established (1956–58) on a regional basis at Allahabad, Bhopal, Bangalore, Delhi, Gauhati, Hyderabad and Mandapam. A Unit for Patna has been sanctioned and more Units will be set up shortly in suitable areas. Each Unit has a sanctioned staff of three technical hands, but it has not been possible as yet to fill all the posts. In-service training has been given to these officers, particularly on pond-cultural practices, techniques of induced spawning of Carps and manipulation of audio-visual publicity apparatus. T.C.M. provided the services of a Fisheries Extension Expert in 1957, besides some equipment in the form of jeeps and audio-visual vans.

As a co-operative programme at the level of the people concerned, Fisheries Extension work is, in essence and approach, akin to teaching the adults their professional work. Being essentially educational in nature. field training and demonstrations, talks and seminars and also written and visual publicity are the various methods which have to be employed in order to obtain tangible results. All the Fisheries Extension Units have taken up these activities in their respective areas. In addition to attending to the individual problems of fish farmers, fishermen and fish curers, the Fisheries Extension Units have been training 'village level workers' in improved methods of fish farming, giving talks and demonstrations on fishery subjects. participating in several exhibitions, showing fishery films and preparing and distributing publicity pamphlets in regional languages. So far, pamphlets and papers on "Fisheries Extension and Co-operation", "Development of Fisheries in U.P.", "Fish Seed Sources of Boori Narbada", "Fish Curing Methods" and "Fishery Training" have been prepared or published by different Units.

Extension Service being a two-way traffic, Fisheries Extension Units not only collect and disseminate results of investigations by research institutions or other agencies, but also collect field data on fisheries and fishermen of their respective regions and information regarding problems faced

by the fish farmers or fishermen for necessary investigation. One of the principal problems in most States is the paucity of fishseed of Major Carps or other culturable varieties of fish. The Extension Units have been assisting the State Fisheries Departments in the survey and exploration of spawning grounds and fishseed collection centres and in demonstrating improved techniques of collection and distribution of fishseed. Particularly valuable results have been obtained by the Extension Units of Calcutta, Allahabad, Bhopal, Hyderabad and Gauhati in this connection. In order to further augment the supply of fishseed, the technique for "induced spawning' of Major Carps, under controlled conditions, has been successfully adopted this year by the Fisheries Extension Units of Gauhati, Allahabad and Hyderabad, adding several lakhs of fry for stocking purposes and saving considerable amount of cost on collection and transport from the natural breeding grounds. In particular, extension on deep-water fishing has been carried out by the Units at Hyderabad and Allahabad, on eradication of weeds by the Units at Calcutta and Allahabad, and on fish curing techniques, utilisation of seaweeds and improved nets by the Extension Unit at Mandapam. The Extension Units of Allahabad, Bhopal, Hyderabad and Mandapam have been particularly active in popularising co-operation movement through pamphlets, talks and personal contacts with fishermen in their respective regions. Although most of the Extension Units have only recently started their activities and are still lacking their full complement of staff and equipment, appreciative references were made about their work and assistance to the States' Fisheries Departments at the Conference of State Ministers of Fisheries held in July, 1958, at Mysore.