



Crisis in Marine Capture Sector calls for Re-orientation of Research Priorities

Prof.(Dr.) Mohan Joseph Modayil, Director, Central Marine Fisheries Research Institute, reiterated the urgency of taking steps for coastal stock management, and exploration/exploitation from the oceanic/deep sea fish stocks, coupled with the development and upgradation of mariculture technologies as alternative options to tide over the present crisis in the capture sector. In this context, he emphasised the need for a total reorientation in the marine fisheries R&D at the national level in view of the declining/stagnating yields of the exploited coastal stocks, under/unexploited deep sea and oceanic resources and inadequate marine fisheries management and policy planning. CMFRI has been consistently addressing the above issues and contributing to the needs of the sector and government through its research, education, training, transfer of technology and consultancy programmes. Further, Regional/National Brainstorming Workshops have been conducted and researchable issues to be addressed relevant to the concerned maritime States have been identified, the Director added.

2000-2001 was a year of great significance and relevance to CMFRI in the context of the present scenario. In addition to consolidating and making further progress in the ongoing in-house and sponsored research programmes, 13 NATP funded projects with a total outlay of Rs. 702 lakhs in frontier areas were taken up by CMFRI. Agricultural Technology Information Centre (ATIC) under NATP was established with the aim of ushering in single window delivery system on an enduring basis. Technology Assessment and Refinement (TAR) through Institute-Village Linkage Programme (IVLP) was initiated at Elankunnapuzha village of Vypeen Island in Kerala.

The major research accomplishments of CMFRI have been recounted by Mohan Joseph as follows:

The Institute's estimation of marine fish landings of the country during the year 2000 stood at 2.7 million t as again, says Mohan Joseph, Director, CMFRI. An estimated

catchable potential yield of 3.9 million t. Kerala contributed 6.04 lakh t, of which oil sardine alone formed 2.4 lakh t. It is gratifying to know from the Director that the Institute's earlier exploratory surveys with medium range trawlers, which led to the location of substantial quantities of deep sea prawns since 1999 from the southwest coast from the outer shelf/slope, proved fruitful.

The database generated by CMFRI on exploited fish stocks has proved helpful in revalidating the potential yield of marine fisheries of the Indian EEZ for formulating management measures and evolving the comprehensive national marine fisheries policy of the country, the Director clarified.

It was pointed out that a comprehensive survey and assessment of ornamental fish resources of the Lakshadweep was conducted by the Institute and the results indicated that there was vast scope for developing a sustainable ornamental fish exploitation for strengthening the export market.

Among the other achievements, it was mentioned that the Institute had a breakthrough in achieving spontaneous spawning and larval rearing of camouflage grouper, *Epinephelus polyphekadion* in controlled conditions. Technology of breeding and seed production of highly priced marine ornamental 'clown fish' was upgraded. The induced maturation and breeding of tiger prawn by artificial insemination technology was standardised. Third generation of tiger prawn seeds was produced from domesticated broodstock, it was revealed.

Another point mentioned was: The tissue culture programme in pearl oyster made good progress at the Institute. The demonstration project on commercial propagation of marine pearl production under the ICAR Revolving Fund made good headway. Rs. 7 lakhs were realised from the sale of pearls.

Group farming of mussels adopting CMFRI technology has been further intensified along the coasts of Kerala and Karnataka and the annual production of cultured mussels increased from 200 to 600 t, valued at Rs

21 lakhs, The Director explained.

Studies on aquafeed biotechnology proved the beneficial effects of gut probiotics in shrimp feeds. It was shown by the Institute that the pollution in aquaculture system can be minimised by keeping low P/N ratios of ingredients in the feed, Mohan Joseph mentioned.

The technologies developed by the Institute on commercial production of shrimps, mussel, edible oyster, clams, pearl oyster farming and pearl production were transferred to the fish farmers and entrepreneurs in different parts of the country and the process is continuing, according to him. The package of practices developed are also continuously upgraded/refined to suit the location-specific conditions through various outreach programmes like TAR-IVLP of the Institute, he added.

HRD Programmes: The M.F.Sc. and Ph.D. courses under education, training programmes under KVK and TTC are being continued. Proposals were submitted for accreditation of the Postgraduate Programme in Mariculture and starting courses in M.F.Sc Marine Fisheries Resources Assessment and Management and Ph.D. in Marine Biodiversity, the Director elaborated.

Consultancy: That a total revenue of Rs.51.9 lakhs was earned by the Institute through completed consultancy/contract projects during the past ten months, was another aspect mentioned.

Targets: Referring to the targets he listed the following: 1) Publishing a White Paper on status of major marine fishery resources of India, (2) Reviewing trends in major fisheries and development of predictive models (3) Black pearl production using blacklip pearl oyster in Andamans, (4) Intensification of mariculture research and development of an International Centre for Tropical Mariculture at Mandapam, (5) Establishment of Biodiversity Division, (6) Upgradation of Visakhapatnam and Veraval Research Centres into Regional Centres, and (7) Establishment of Acquisition of a National Institute status for CMFRI.