

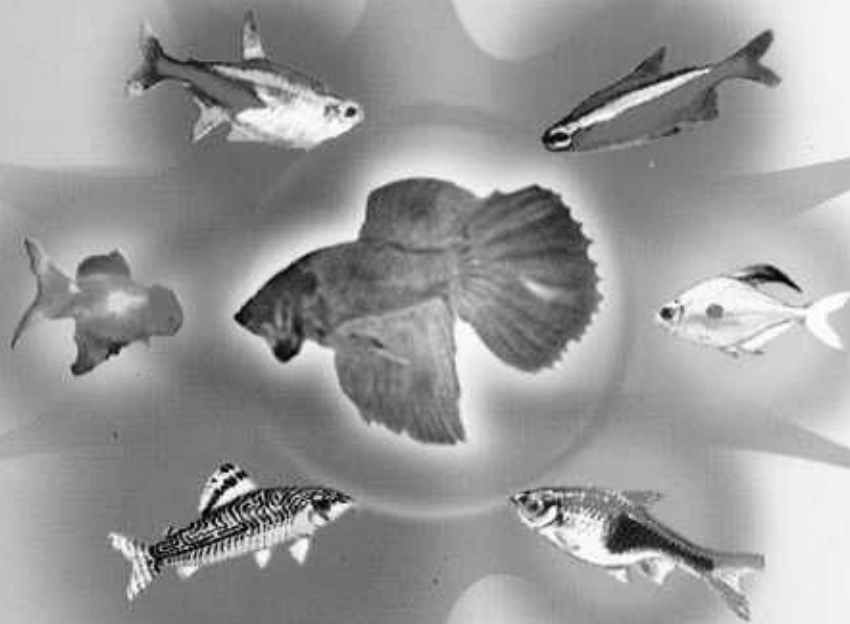
*Proceedings of the*  
**National Workshop On**  
**FISHERIES ECONOMICS RESEARCH AND**  
**EDUCATION IN INDIA : AN OVERVIEW**

28-29 June, 2001

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## 10. MARINE FISHERIES RESOURCE MANAGEMENT IN GUJARAT

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The policies of Gujarat Government have been in favour of enhancing fish production through promoting input supply system, streamlining of processing, marketing and transportation and making adequate on-shore facilities available to the coastal fishermen. Besides R & D efforts, liberal loan facilities, large amount of subsidies, rise in price of fish due to enhanced export and subsequent increase in profitability to the boat owners promoted mechanization and modernization of marine fishing fleet in the state.

In the initial stages of expansion of the fishing industry in general and mechanization of fishing crafts in particular, there was more than normal profit due to addition of catch per boat. Hundreds of mechanized boats are being added in Gujarat waters every year. During 1999-00, mechanised fishing fleet in the state, comprising 6,787 trawlers, 3,764 gillnetters, 4,347 fibre glass boats, 1,895 wooden canoes (OBM) and 663 other dolnetters, totalled to 17,456 units. During the last few years, there has been insignificant increase in the non-mechanised fishing units. Total number of marine fishing boats during 1999-00 has been registered at 26,275 in coastal region of Gujarat. During last one decade, though there has been continuous increase in marine fish production in Gujarat upto 1997-98 (touching a peak of 7.02 lakh tonnes) it declined to 5.52 lakh tonnes during 1998-99. Fish landings further increased to 6.7 lakh tonnes during 1999-00. It clearly gives a signal that annual marine fish production in Gujarat may rest some where at 7 lakh tonnes.

Over 4/5<sup>th</sup> of the potential catchable stock (7.73 lakh tonnes) of Gujarat is presently being exploited. The state ranks first in terms of marine fish production in maritime states of India. Of total fish landings of Gujarat, over 90% is contributed by the mechanized sector, especially by trawlers. About 3/4<sup>th</sup> of total marine fish landings in the state has been recorded from 5 districts of Saurashtra Region in which 70% of mechanized boats of Gujarat are being operated. This study has been confined to Saurashtra Region of Gujarat.

In Saurashtra, trawlers, gillnetters (OBM & in-board engine) and dolnetters are the major catch contributors. Small scianoids, bombayduck, ribbonfish, prawns, cuttle fish and catfish are the major marine resources. Economic analysis of different units during 1994-95 showed that all sorts of units were running in profit and the rate of return to capital ranged from 25% to 34%. Part of the analysis deals with the data upto 1999-2000.

During the profit making fishing activities, mesh size of the net is being reduced year after year. This results in capture of under-sized species, especially of commercially important species and adverse effect on landings. Since the fishing fleet is continuously increasing, catch per unit effort is getting reduced year after year. Fishing units will be operating till a situation of recovery of atleast operational cost occurs, though all sort of costs may not be recovered. If this situation continues for a long time some units may not go for fishing due to uneconomical operations.

In the above circumstances, the Government has to play an important role to guide fishermen in conserving valuable resources. In the open-access and common property resource system, industry has to ensure socially optimal resource exploitation where the main concern is fish, the producer and the consumer. thus, neither the approach of Maximum Sustainable Yield (MSY) nor that of maximum Net Economic Yield (MEY) alone can solve the problem. In a wider sense, the objective should be the best possible use of the resources in the overall interest of the society. For this, a set of parameters including economic efficiency, conservation of fish stocks, income distribution, export needs, employment potential, regional development parity, social welfare activities and protection of interests of the producers and the end users has to be evolved. Thus, the fishing management equilibrium could be a bio-economic equilibrium accompanied by safeguarding of society's interest. Various measures of efficient exploitation, conservation and management of marine fish resources of Gujarat have been discussed in the study.