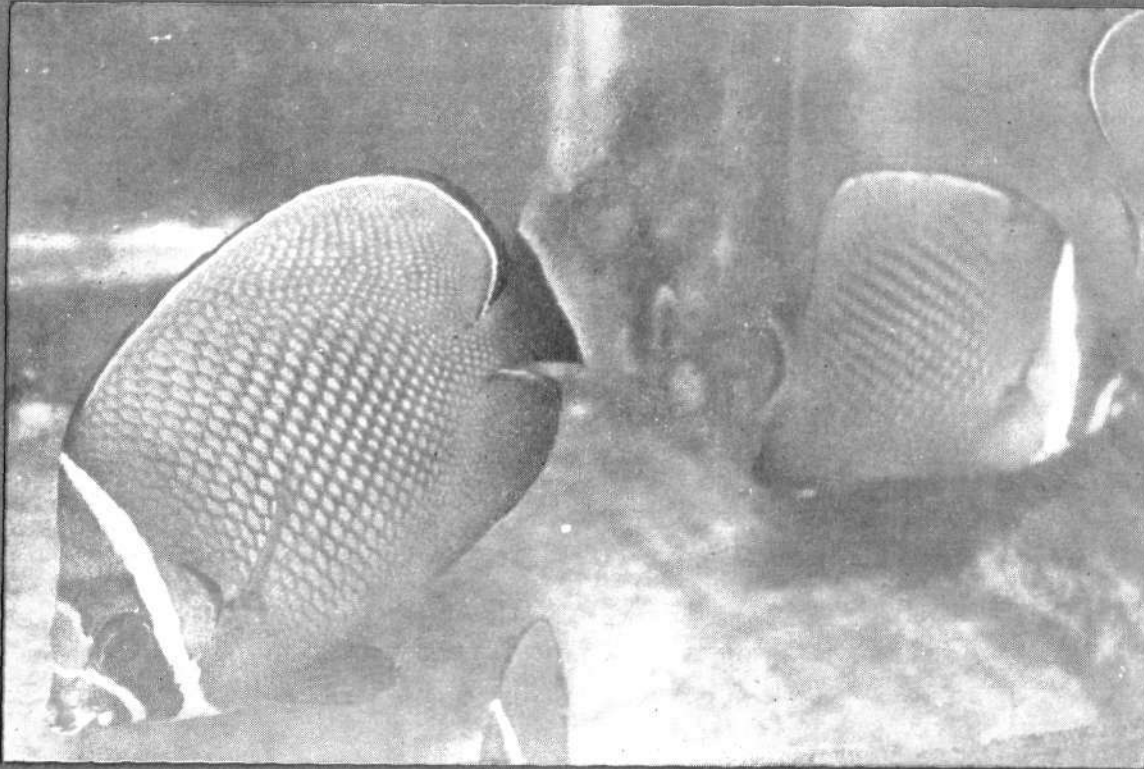




# समुद्री मात्स्यकी सूचना सेवा MARINE FISHERIES INFORMATION SERVICE

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## **RECOMMENDATIONS OF THE WORKSHOP ON MARINE FISHERIES RESEARCH AND DEVELOPMENT IN MAHARASHTRA**

1. The workshop discussed the present status of collection of marine fish catch statistics in the country and the problems involved in the same. It noted that the CMFRI had discontinued publication of marine fish catch statistics from the year 1986-'87 and the responsibility has been given to the maritime states for publication of the catch statistics for each of the States. However, the workshop felt that the CMFRI should continue to reconcile the figures obtained by the states and publish the same. (Action: CMFRI and S.F.D., Maharashtra).
2. The present methods of collection of fish catch statistics and documentation have been discussed at the workshop. Attention of the participants is drawn to the workshop held by CMFRI on "Acquisition and Dissemination of Data on Marine Living Resources of Indian Seas" at Cochin during which as a result of discussions certain proformae were prepared by CMFRI and published in Marine Fisheries Information Service, No. 46 for the use of various organizations. The workshop felt that in addition to these schedules there is a need to develop suitable schedules for incorporating data on socio-economic conditions in marine fisheries. In order to develop such schedules, a working group consisting of representatives of CMFRI, FSI and CIFE has been proposed to be constituted. CMFRI may convene the meeting for this purpose. (Action: CMFRI).
3. The workshop felt that catch and effort data for various commercial fisheries are vital for stock assessment. Therefore it is suggested that suitable models may be used in such studies and also attempts made to determine which model helps to understand the situation better. (Action: CMFRI, CIFE and FSI).
4. The workshop discussed the nature of presently exploited resources and the resources that can be exploited to increase fish production in the state. A critical analysis of this situation by CMFRI indicated that while there should be no further increase in intensity on fishing by the 'dol' nets, the effort by gill nets and trawl nets can be marginally increased so as to obtain an additional production of about 60,000 tonnes. For fixing the target for marine fish production from the presently exploited region in the state, this aspect should be taken into consideration. Any additional target that may be suggested for the state is naturally linked with the untapped resources, the infrastructure needed and the economics involved in exploitation of such resources. Therefore, while fixing of targets the gap that exists between the potential resources and the presently exploited resources should be taken into consideration. Any arbitrary fixation of target for marine fish production is likely to be met with difficulties. (Action: SFD, Maharashtra, CMFRI and Min. Agri., Government of India).
5. It was brought to the notice of the workshop that in southern Maharashtra there are about 60 purse-seiners operating. But the effects of purse-seine operation in this region on the traditional methods of fishing are not clearly known. The workshop therefore, recommends that the CMFRI may make a detailed study on the effect of purse-seine fishing both on the resources as well as the traditional methods of fishing. (Action: CMFRI).
6. It was brought to the notice of the workshop that the classical resources like 'ghol', 'dara', 'koth' and 'wam' are now not seen in such abundance as seen some years ago. Different reasons have been attributed to explain the situation like emphasis on and diversion of fishing activity for shrimp, probable decline in the stocks and changing methods of fishing. However, the CMFRI may examine the situation by making a critical review on the basis of data collected over the past 10 years for indicating the reasons. (Action: CMFRI).
7. The workshop discussed the problem of conservation of shrimp resources during the monsoon season and felt that adequate scientific basis for regulation of the fishery is at present not available. Therefore, it is suggested that the CMFRI should undertake a detailed study of the monsoon fishery along the west coast and provide the scientific basis for the economics of such fishing and conservation of resources. (Action: CMFRI).
8. The Maharashtra Government would like to know the commercial feasibility of exploiting marine fisheries resources beyond the 40 fathoms depth

along the coast. In order to meet this requirement, it is suggested that a pilot project be immediately initiated by FSI through deployment of their boats to assess the resources of the region and commercial feasibility of exploitation of such resources with the help of other Institutions. (Action: FSI).

9. The workshop discussed the present status of operation of 'dol' nets in Maharashtra especially the species composition, the size of various species and the mesh size of the 'dol' nets. Since this is one of the important methods of fishing in the state, a detailed study on the possible effects of operation of 'dol' nets on fish populations in the region is needed in both Maharashtra and Gujarat. CMFRI may conduct special studies on the subject. (Action: CMFRI).
10. The workshop discussed the potential of non-conventional fishery resources of Maharashtra state that has emerged from the data collected by FSI. Since some of these resources are recognized as fairly abundant, it is essential that attempts be made to sort out the promising resources and develop suitable methods for processing product development and marketing on priority basis. This should take into consideration the consumer acceptance for such products. (Action: CIFT, CIFE and SFD, Maharashtra).
11. CMFRI has mentioned about the availability of resources of some species of prawns hitherto not exploited from the Maharashtra region. The magnitude of these resources must be further studied for commercial exploitation (Action: CMFRI).
12. The workshop noted that solar drying can be adopted for drying fish. But this method has not been adopted by the fishermen so far. Several reasons have been attributed for the same, especially the requirement of space for this method as against the traditional methods of drying fish on scaffolds along the Maharashtra coast. The applicability of solar drying, therefore, needs further examination by concerned authorities. (Action: SFD, Maharashtra and CIFT).
13. The various technologies available on fishing craft and gear have been brought to the notice of the workshop which might help in the economics of operation, saving of fuel, maintenance of craft and gear *etc.* However, the workshop felt that the technologies which are suitable for the state may be critically examined and necessary experimental work or pilot studies be conducted. (Action: CIFE and CIFT).
14. The workshop discussed the high variability in mesh size of cod end of trawl nets in different states and the need for regulating the same with special reference to conservation of shrimp. It was generally agreed after taking into consideration the information available from various states, that the mesh size should not be less than 35 mm. Therefore, efforts should be made to regulate the cod end mesh size of trawl nets for conserving the shrimp resources. (Action: SFD, Maharashtra).
15. In view of the changing environmental conditions and the changing fishing patterns the workshop felt the need for collection of environmental data in relation to the fish resources for better understanding of their availability pattern. (Action: CMFRI, CIFE, NIO and FSI).
16. In view of the interest of the state to intensify brackishwater fish and prawn culture, it was found necessary to assess the exact area suitable for brackish water culture, extend of shrimp culture to such areas and also determine the levels of pollution in the creeks and adjacent areas to safeguard the interests of brackishwater culture. (Action: SFD, Maharashtra, Pollution Control Board, Maharashtra and NIO).
17. The workshop discussed the work being done on pollution in Maharashtra, especially the programme of work of the DOD supported research project on pollution. It was felt that the existing information on different types of marine pollution in Maharashtra may first be documented giving details as to how pollution has been affecting the marine resources. Based on this information, further work on marine pollution is suggested. A map showing the present condition of pollution in brackishwater areas may also be prepared which would be useful in connection with the proposed intensification of brackishwater shrimp culture in the State. (Action: NIO, Pollution Control Board, Maharashtra).
18. In view of the conflicts that are arising between the traditional and mechanised sectors in marine fishing, it is suggested that the question of further mechanisation of the fishing craft in the state be examined carefully and necessary education and extension programmes undertaken for the fisher-

men to bring out a proper amicability between the two sectors to avoid conflicts. (Action: SFD, Maharashtra).

19. The existing marine fishing regulations in the state have been discussed at the workshop. Several difficulties have been expressed in matters like registration and licencing of boats, delimitation of the fishing zones, implementation of the regulations, powers given to different authorities and departments *etc.* However, some of these issues might be resolved based on the scientific information regarding the nature and exploitation of the resources. To that extent the workshop felt that the necessary scientific basis could be developed in course of time. The workshop also recommends that there should be an inter-state understanding as far as these matters are concerned to ultimately develop a national policy. The scientific background for resolving such issues should also be

developed. (Action: SFD, Maharashtra, CMFRI and Ministry of Agriculture, Government of India).

20. The Workshop discussed the short term and long term development of the Taraporevala Aquarium in Bombay and suggested that improvements to the aquarium need support at state and national level as this is the most important marine aquarium in the country serving the twin purpose of recreation and education. Immediate requirements include necessary repairs in the existing system and replenishment of the ornamental fish. The long term development includes provision of additional space for expansion, modernisation and inclusion of oceanarium for larger animals such as dolphins *etc.* It is suggested that a committee should be formed to look into various aspects to make it more attractive and also serve the purpose of education and training in such specialised areas. (Action: SFD, Maharashtra).

