

**പതിമൂന്നാം കേരള നിയമസഭ  
പതിനൊന്നാം സമ്മേളനം**

നക്ഷത്രചിഹ്നമില്ലാത്ത  
ചോദ്യം നമ്പർ : 1758

16/06/2014 - ൽ മാറ്റുപടിക്ക്

**തീരക്കടലിലെ മത്സ്യസമ്പത്തിന്റെ സംരക്ഷണം**

**ചോദ്യം**

**ഉത്തരം**

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(മത്സ്യബന്ധനവും തുറമുഖവും  
എക്സൈസവും വകുപ്പ് മന്ത്രി) :

(എ) കേരളത്തിലെ തീരക്കടലിലെ മത്സ്യസമ്പത്ത് സംരക്ഷിക്കുന്നതിന് തീരവിൽ എന്തെല്ലാം കരുതൽ നടപടികളാണ് സ്വീകരിച്ചിട്ടുള്ളത് ;

(എ) മത്സ്യസമ്പത്ത് വർദ്ധിപ്പിക്കുന്നതിന് മത്സ്യങ്ങളുടെ പ്രജനനകാലമായ ജൂൺ-ജൂലൈ മാസങ്ങളിൽ വർഷം തോറും 47 ദിവസത്തെ ട്രോളിംഗ് നിരോധനം നടപ്പിലാക്കി വരുന്നു. അനധികൃത മത്സ്യബന്ധന രീതികൾ ഉപയോഗിച്ചുള്ള മത്സ്യബന്ധനം തടയുന്നതിനും അതിലൂടെ മത്സ്യ സമ്പത്ത് സംരക്ഷിക്കുന്നതിനും കടൽ പട്രോളിംഗ് നടത്തി നിയമ നടപടികളും സ്വീകരിച്ചുവരുന്നു. കൂടാതെ മത്സ്യബന്ധനം നിയന്ത്രിക്കുന്നതിന് കെ.എം.എഫ്.ആർ ആക്ട് 1980 പ്രകാരം അർഹമായ മത്സ്യബന്ധന യാനങ്ങൾക്ക് മാത്രം ഫിഷറീസ് വകുപ്പിൽ നിന്ന് രജിസ്ട്രേഷൻ, ലൈസൻസ് എന്നിവ തൽകി വരുന്നു. സീറാഞ്ചിംഗ് പദ്ധതി പ്രകാരം മത്സ്യസമ്പത്ത് വർദ്ധിപ്പിക്കുന്നതിനായി കായലുകളിലും, തീരക്കടലിലും മത്സ്യ കുഞ്ഞുങ്ങളെയും, ചെമ്മീൻ വിത്തുകളെയും നിക്ഷേപിക്കുന്നുണ്ട്. കടലിലെ പാർ മത്സ്യങ്ങളുടെ വംശവർദ്ധനവ് ലക്ഷ്യമിട്ടുകൊണ്ട് കൃത്രിമ പാർ പദ്ധതി നടപ്പിലാക്കി വരുന്നു. ഇതോടൊപ്പം മത്സ്യ സമ്പത്ത് സംരക്ഷിക്കുവാൻ ബോധവൽക്കരണ പരിപാടികളും നടത്താറുണ്ട്.

(ബി) സംസ്ഥാനത്ത് യന്ത്രവത്കൃത മത്സ്യബന്ധന ബോട്ടുകൾക്ക് ഏർപ്പെടുത്തുന്ന നിരോധന കാലയളവ് ദീർഘിപ്പിക്കുവാൻ ഉദ്ദേശിക്കുന്നുണ്ടോ ; ഇത് സംബന്ധിച്ച് എന്തെങ്കിലും ശുപാർശകൾ ലഭ്യമായിട്ടുണ്ടോ ;

(സി) ട്രോളിംഗ് നിരോധനത്തിന്റെ പ്രത്യാഘാതത്തെക്കുറിച്ച് പഠിക്കാനായി നിയോഗിച്ച വിദഗ്ധ സമിതിയുടെ റിപ്പോർട്ടിന്റെ അടിസ്ഥാനത്തിൽ എന്തെല്ലാം കാര്യങ്ങൾ ചെയ്യാൻ ഉദ്ദേശിക്കുന്നു ; വിശദാംശങ്ങൾ നൽകുമോ ?

(ബി) & (സി)

കേരളത്തിന്റെ മത്സ്യ സമ്പത്ത്/ട്രോളിംഗ് നിരോധനത്തിന്റെ പാർശ്വ ഫലങ്ങൾ എന്തിനെയെക്കുറിച്ച് ശാസ്ത്രീയ പഠനം നടത്തുന്നതിന് ഫിഷറീസ് അഡീഷണൽ ഡയറക്ടർ ചെയർമാനായ കമ്മിറ്റി സർക്കാരിന് സമർപ്പിച്ച റിപ്പോർട്ട് പരിശോധിച്ചുവരുന്നു. പ്രസ്തുത റിപ്പോർട്ടിന്റെ പ്രധാന ശുപാർശകൾ അനുബന്ധമായി ചേർക്കുന്നു.

*Jeyaraj*  
സെക്ഷൻ ഓഫീസർ.

## **Final Recommendations**

### **Main Findings [page 15-21]**

1. The present analysis clearly indicates that there has been a positive impact on fishery yields (without oil sardine) in Kerala State due to the introduction of the trawl ban from 1988. However, the 5-point moving average graph unmistakably shows that the positive impact on fishery yields was present only up to 1997 (9 years), and thereafter, the fishery yields are declining, the net decline being more than one lakh tonnes after 2000. This indicates that the benefit in terms of yield was not sustained.
2. The economic analysis indicates that in value terms the benefit of the trawl ban was present only up to the year 2000, after which there has been a decline in real value of the fisheries and ultimately incomes to fishermen in spite of increase in nominal value.
3. The growth rate analysis also clearly indicates that growth rate in the mechanized sector is negative after the year 2000, and the benefit of the trawl ban was not sustained after 2000.
4. Therefore, a hard, but necessary option would be to increase the duration of the trawl ban such that the benefit of the trawl ban in terms of yield and value is sustained.

### **Fishery Monitoring [page 45]**

5. This committee recommends that the DOF-GOK enter into a MOU with CMFRI to get the data on catch and effort from CMFRI on an annual/regular basis as and when the year's data becomes available. If necessary, annual fees for the data may also be paid to CMFRI as a matter of professional courtesy and to help the data collection process. As per the suggestions of the Fishermen Coordination Subcommittee, this exercise may be jointly undertaken by the DOF-GOK and CMFRI without duplication of effort.
6. The Statistics Wing may focus on collection of inland and aquaculture data.

### **Registration & Licensing [page 46]**

7. Currently blanket licensing is done for fishing; however, this should change to licensing for gears following legal dimensions and mesh sizes. This may be introduced by making necessary amendments in the KMFR Act. The DOF-GOK should introduce a system by which all fishing gears have a permanent DOF mark or stamp indicating its legal status following KMFR Act. The license should be valid for 2 years and should be given only after inspection of gears possessed by the MEW. During implementation adequate consultations with the Fishermen Coordination Subcommittee should be done.
8. A registered fishing vessel can if necessary possess up to 2 licenses. For e.g., one for trawling and another for gillnetting. However no vessel should possess more than 9 licensed gears. Resource specific gears should be encouraged.
9. At present provisions exist in KMFR Act for enforcing fine and forfeiting the vessels in case of violations. Provision for temporary cancellation of license may also be included in the KMFR Act by making necessary amendments.
10. No new fishing vessels should be introduced without the permission of the DOF-GOK. [page 45]
11. Registration and license for other states vessels should be restricted, and if given, should be at high cost (in order to discourage the practice) with the condition that catch is landed only in Kerala fish landing centres.

### **Fisheries Management Area & Governing Rules [page 46-47]**

12. The coastal waters off Kerala, up to the legal jurisdictional limit, should be declared as Kerala Fisheries Management Area (KFMA). And, in the case of specific, characteristic and unique

fisheries, such as clam fisheries in an estuarine system or the artisanal fisheries off Thiruvananthapuram coast, specific management areas need to be set. Once the area is specified, the specific rules can become applicable to the management area. Thus fisheries management becomes more local and regional which is one of the basic tenets of the FAO's CCRF.

13. It is strongly recommended that the GOK urge the MoA-GOI to take necessary steps to correct the lack of rules and regulations in the area of sea from 12 to 200 nmi and to stop the LOPs issued by the MoA-GOI.
14. According to the FAO-CCRF, fisheries are best managed on a regional and local basis, and therefore, it is more pertinent to have the state manage and regulate the fisheries in the 12-200 nmi zone as well. The DOF-GOK may communicate this concept to the MoA-GOI.
15. The DOF-GOK may also communicate to the MOA-GOI the vehement opposition of the State's fishermen to the operation of LOP vessels in the 12-200 nmi zone.

#### **Regulation on Destructive Gears [page 27/47]**

16. Considering the objections with regard to stake net removal, this committee recommends that all unlicensed stake nets be removed by the DOF-GOK within one year. A compensation package maybe worked out based on the age of the gear. The minimum codend mesh size recommended by CIFT (24 mm) for all licensed stake nets should be strictly implemented. This should be done by periodic inspections by the backwater patrol of the DOF-GOK.
17. As per the CIFT recommendation implement banning of stake net operations during high tide by raising the net above water line during this time.
18. It is recommended that the DOF-GOK prohibit the operations of mini trawls in a phased manner. The DOF-GOK should formulate a registration and license buy-back scheme to help mini trawl fishermen take alternate avocations. This fishing practice should be phased out within the next 5 years (by December 2018). Existing licenses of mini-trawls should not be renewed.
19. Based on CMFRI's advice on the negative impacts, the Government of Karnataka has banned FAD based cuttlefish fishery in 2012. It is therefore imperative that the DOF-GOK also bans this type of destructive fishing method urgently to conserve this valuable resource.
20. The committee recommends that MPA, which is a very successful passive form of fisheries management, would become necessary in the future years. But first, the fishermen have to be made aware and educated with regard to the advantages of MPAs. Therefore, the DOF-GOK should initiate awareness campaigns in all coastal districts in the next 5 years such that MPAs can be introduced within the next 10 years.

#### **Zonal Restrictions [page 49]**

21. Implementation of zonal restrictions is possible only if the DOF-GOK implements the satellite based VMS as detailed in the surveillance section.
22. If the OBM and IBM ring seiners are using mechanized power to deploy and haul the nets, then they will lose their motorized status and will come under the status of mechanized, and therefore, the 20/30m zonal restriction will apply to them as well.

#### **Fishing Vessel Specifications [page 49-50]**

23. All multi-day mechanized fishing vessels with LOA 15m and above should possess toilets, kitchen (galley) and at least 5 sleeping berths.

24. The under-deck fish hold capacity of these vessels should not exceed 25% of the total volume of the vessel. Already registered vessels should get this modification done within the next 2 years, failing which their registrations should be cancelled.
25. All sea going fishing vessels should be fitted with appropriate lights and flags for signaling as per international maritime norms. They should also possess LSA and fire-fighting apparatus as per sea safety rules. These rules should be made effective immediately.
26. All identity card holding fishermen (both traditional and mechanized) of the state should undergo a 3-day course on navigation and sea safety. This course can be conducted by CIFNET who have the expertise and facilities to conduct such courses. The DOF-GOK should enter into a MOU with CIFNET for conducting this all-expense paid course. The entire exercise should be completed within the next 2 years and the fact that the fisherman has completed the course should be indicated in his/her identity card.
27. The drivers and serangs of vessels should undergo a more detailed 10-day course on navigation and other mechanical skills. This too can be made with a MOU with CIFNET and under conditions as given above. The rule that mechanized fishing vessels should be driven only by certified serang/drivers should be made a mandatory requirement within the next 5 years.
28. The fishing vessels are also lacking adequate communication facilities. All vessels capable of and carrying out operations outside the 12 nmi zone should possess not only VHF but also RT (radio telephone) communication facilities. The DOF-GOK should enter into dialogue with the Ministry of Communications for enabling all deep-sea going fishing vessels to be fitted with RT facilities on subsidized rates. This is an urgent sea safety requirement for which the DOF-GOK has to play an enabling or facilitating role.
29. Creation of a separate Fishing Vessels Act to address the above should be considered by the DOF-GOK in consultation with the legal cell.
30. This committee therefore recommends that the DOF-GOK take permission of the MMD to register fishing vessels up to 24m LOA with all safety and navigational features. The proposed Fishing Vessel Act can take these into consideration.

**Legal mesh sizes and dimensions of nets [page 51]**

31. The legal mesh sizes for different gears have been set out elsewhere in this document. This should be strictly implemented by the DOF-GOK by system of inspections. Use of illegal nets and mesh sizes in nets leads to IUU fishing.
32. Besides, government agencies supplying nets to fishers should not manufacture nor supply illegal mesh size nets to any party. Research institutions testing experimental fishing nets and gears can be exempted. The argument that if government agencies are not supplying, private net manufactures would supply does not hold, as the system of checks and punishments set out in this document would effectively stop the illegal practice in course of time.
33. Optimum mesh sizes have been determined for species targeted by gillnets by CIFT and are given in Table in page 50. Minimum mesh size is 33 mm and maximum mesh size 152 mm.
34. Mesh size for sardine/mackerel ring seines for both mechanized and OBM categories may be regulated at 22 mm or more in the bunt and main body and maximum dimension of the gear may be limited to <600 m hung length and <60 m hung depth, for all new and replacement ring seines.

35. Mesh size for anchovy ring seines may be regulated at 12 mm and maximum dimension of the gear may be limited to <250 m hung length and <50 m hung depth.
36. Codend mesh of 35 mm has been prescribed for trawl net in KMFRA. It is recommended that this be changed to 35 mm square mesh as studies by CIFT shows that it provides better opportunity for juveniles to escape.

#### **Fishing Bans [page 52-54]**

37. The tenure of the annual trawl ban should be extended from 47 days to 60 days (two months) in two periods, one during June-July and the second during October-November each of 30 days. The advantages of such an extension period should be reviewed after 3 years by a scientific committee.
38. The OBM and IBM ring seiners should be banned from operation for a period of 60 days from April 1 to May 30 (both days inclusive) to protect pelagic spawning stocks. This was not agreed by the Fishermen Coordination Subcommittee. The Expert Committee recommends further discussions and awareness campaigns with the concerned fishermen associations before taking up the matter again.
39. There should not be any seasonal fishing ban for non-motorized traditional vessels.
40. The DOF-GOK should provide adequate monetary relief (based on minimum wages) to fishermen during the ban periods.

#### **Welfare measures [page 54-55]**

41. The subsidy for fuel for all fishing crafts in the state shall be fixed at an appropriate and reasonable percent of fuel (diesel or kerosene) cost.
42. This subsidy should be given to only those registered and licensed vessels which are complying with all rules of the KMFRA. Since license is to be renewed every 2 years, the subsidy allowance should also be reviewed at this point.
43. Other welfare (housing, education, ration etc.) subsidies to fishermen should be quantified by the DOF-GOK as a database for future reviews and for applying the above management-motivation scheme.

#### **Fleet Overcapacities [page 55-56]**

44. In the light of the high overcapacity in some of the fishing fleets in Kerala, an immediate moratorium on new vessels has to be declared by the DOF-GOK.
45. Vessels older than 20 years should have their registration and license cancelled, and owners if they are fishermen, should have the right to construct a new vessel with the permission of the DOF-GOK. This replacement vessel will be strictly in the least over capacitated fishing fleet.
46. New vessel construction in boatyards should be begun only with permission from DOF-GOK; otherwise registration should not be given.
47. In order to reduce overcapacity and fishing effort, the DOF-GOK should formulate a scheme to buy-back vessel registration and license from owners with compensation at market prices. The DOF-GOK should earmark adequate finance in its budget to buy-back at least 20 vessels in a year. On demand, alternate avocation training should also be provided free of cost by DOF-GOK.

#### **Surveillance [page 57-59]**

48. The Marine Enforcement Wing of the DOF-GOK should be strengthened by the posting of an Additional Director under whose administrative and technical control the whole wing should function.

49. The Inspectors and Sub-inspectors of fisheries in DOF-GOK should be fully deployed in surveillance and enforcement rather than in routine department work.
50. It is imperative that all staff in the MEW are seaworthy and should possess navigational skills. They should have a monthly schedule of patrols in the Arabian Sea off Kerala. During patrols they should inspect maximum number of vessels in a day and inspection reports in forms should be regularly filed. Inspections should not hinder fishing activity as far as possible.
51. The MEW staff should undergo training by the DOF such that they are knowledgeable on all aspects of KMFRA rules and regulations. They should be equipped with net gauges and tape measures to measure the size and codend of nets. These inspections should be carried out when the vessel is in landing centres.
52. A Central Operations Room (COR) should be formed at Vypin Fisheries Station which should house the VMS base unit and also have RT and VHF base stations. This unit should work 24x7 with adequate duty rotations.
53. The DOF-GOK may explore the possibility of drawing up an MOU with the Coast Guard (joint operations) to help in surveillance and enforcement of fishery regulations. This would help in stricter enforcement.
54. VMS base stations can be established from around INR 30 lakhs upwards, and onboard units run from INR 3-4 lakhs/unit. Funding for the latter should be subsidized by the DOF-GOK, and the entire funding should be sourced through centrally sponsored schemes of the MoA-GOI.
55. To aid better enforcement, the DOF-GOK should provide at subsidized rates RT units to all mechanized and motorized fishing units. This would roughly cost INR 2-3 lakhs/unit. This would also help in sea safety also.

**Governance – Co-management [page 60-63]**

56. This committee recommends that the DOF-GOK embrace the consultative mode of co-management immediately and then in later years move on to the cooperative mode of co-management as communities and governments take time to adjust and understand these new governance systems.
57. Under the consultative mode of co-management 3-tier fisheries councils should be formed immediately. At the lowest level should be the Fishing Village Council (FVC) and next should be the District Fisheries Council (DFC) and finally the State Fisheries Council (SFC). The council TORs should be very clearly set. The councils should have representation from panchayats/ district/state, Department of Fisheries, CMFRI, CIFT, NGO's working in the area and fishermen associations and societies. They should meet once in a quarter. The Council should have powers to debate and recommend rules as necessary for effective management of fisheries. The scientific inputs for management of fisheries should be taken from research institutes and universities.
58. The rules and regulations recommended by the FVC or DFC should ultimately be passed by the SFC within a period of one year and transmitted to DOF-GOK for implementation. The rule making power is vested with the Government.
59. At the FVC level separate councils can be formed for specific fishery commodities, such as for example clam fisheries. A village level clam fisheries council can exist separately and they should pass on their recommendations to the DFC.

60. The DOF-GOK should urgently promote the wide dissemination of KMFR rules and regulations among fishermen, boat owners and other related stakeholders.
61. This booklet should also be compulsorily given to fishermen and boat owners when they are given identity cards, licenses and registration cards.
62. The KMFR and its rules should be placed in the website of DOF-GOK.
63. The DOF-GOK should ensure that future evaluation and expert committees should have adequate representation from stakeholders.

**Implementation Plan [page 65]**

64. The Director of Fisheries, GOK should constitute an internal committee/ committees to examine the recommendations and suggest which of the recommendations would lead to amendments to the KMFR Act and which can be accommodated by changing the rules. This process should be completed at the earliest and should involve the Legal Officer.
65. The DOF-GOK should be strengthened with more technical personnel with fisheries background and should be made into a technical department.
66. The recommended administrative changes within the DOF-GOK, such as strengthening of the Marine Enforcement Wing should be completed within 3 months.

*Jayaram*  
*Director Fisheries*