

ADVISORY COUNCIL ON THE ENVIRONMENT

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(ACE 5/94)
(For Information)

Mariculture-Progress Report

Introduction

This is the fifth progress report to members on the implementation of the recommendations of the consultancy on mariculture. The last report was considered at the EPCOM meeting on 19 July 1993.

2. Implementation of the consultants' recommendations is being co-ordinated by a working group composed of representatives from Economic Services Branch (ESB) (Chairman), Planning, Environment and Lands Branch, Agriculture and Fisheries Department (AFD), Environmental Protection Department, Marine Department, Regional Services Department, City and New Territories Administration and Planning Department.

Identification of Open Sea Mariculture Sites

3. The working group previously identified four possible sites suitable for trial operations. These are Po Toi, Tung Lung Chau South, Tap Mun East and Kai Kung Tau. The former two, however, are presently surrounded by marine borrow area, and would not be used for culture trial until the dredging work has been completed. Mariculturists have expressed interests in undertaking trial operations in the latter two sites and some suggested another site off Pak Sha Chau (Southeast of Kai Kung Tau). The proposal is being assessed by the AFD.

Review of Existing Fish Culture Zones

4. The relocation of mariculturists currently operating in environmentally unacceptable Fish Culture Zones (FCZs) depends largely upon the development of open sea cage culture and the identification of suitable sites. It will therefore be a long term process.

5. The working group agreed that the boundaries of five existing FCZs (i.e. Tap Mun, Sham Wan, Kau Sai, Sok Kwu Wan and Cheung Sah Wan) should be revised and extended to improve fish culture conditions. The affected mariculturists were consulted and the boundary adjustments gazetted on 15 August 1992. Relocation of raft sites has been completed in four of the zones. Relocation of rafts in Cheung Sha Wan FCZ is being discussed with the licensees.

Enforcement Action Against Domestic Dwellings and Oversized Structures on Rafts

6. An appeal by a mariculturist against a conviction for erecting an oversized structure on a raft was heard on 14 May 1992. The Court of Appeal ruled that since the structure was erected before mid 1990 when the relevant regulation came into effect, no offence had been committed, even though the dimensions of the structure exceeded those laid down in the appellant's current licence.

7. The Director of Agriculture and Fisheries, in consultation with the ESB and the Attorney General's Chambers, decided to exercise his discretionary power under section 9 of the Marine Fish Culture Ordinance (Cap 353) to cancel or not to renew these licences with effect from 1 October 1992 on the grounds of non-compliance with licence conditions. As a result, the problem of oversized structures has now been resolved.

Improvement of Farming Techniques and Zone Management

(a) Experimental Open-sea Fish Culture

8. AFD is evaluating two designs of raft for open sea use. There is a Japanese rope cage design made of strong ropes and buoys which can be assembled by mariculturists themselves and is much cheaper than the rubber-framed design used in trials to date. A prototype of this design was set up at Tai Hang Tun to test durability. This raft, however, was found suitable only for slightly exposed waters, such as the outer regions of existing FCZs where conventional wooden rafts may not be strong enough to withstand the heavier waves. Use in more exposed waters would pose operational difficulties because the design would not provide firm footing in such conditions.

9. There is also a Norwegian open sea raft cage system. The raft is made of high density polyethylene tubing which can be strengthened according to the exposure of the site. This design is also cheaper than that of the rubber-framed design used so far. A live fish trader has shown interest in conducting a culture trial with this raft design at Tap Mun East. Detailed hydrological data of the eastern waters of Hong Kong has been sent to the Norwegian manufacturer for assessment of the strength of tubing for the raft and the mooring system required. Measures to overcome security problem is under consideration.

(b) Improvement of Fish Feed Formulation

10. AFD has successfully developed a pellet feed formulation, comprising trash fish, fish meal, a binder and vitamin mixture, to replace the traditional minced trash fish. The pellet feed results in substantially less feed wastage and leaching. Fish fed with the pellet feed are observed to grow faster and healthier.

11. A trial extension programme was set up at Kat O Fisheries Station in June 1993. Three mariculturists in the FCZs around Kat O volunteered to use the pellet feed. The results were encouraging. Seminars and demonstrations have been held to introduce the formulation to mariculturists.

12. AFD and the Fish Marketing Organization plan to set up a pilot pellet feed production plant at Aberdeen Fish Market to extend the use of pellet feed to the mariculturists off Lamma Island. Further extension of the use of pellet feed to mariculturists in Tolo Harbour and Port Shelter is being planned.

(c) Refuse Collection and Disposal

13. Education of individual fish farmers on refuse collection and proper disposal is continuing. Periodic reminders have been sent or warnings given during regular patrols.

Next Progress Report

14. It is proposed that a further progress report be submitted to members in six months.

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