

Legislative Council Panel on Economic Services

**Consultancy Study on Fisheries Resources
and Fishing Operations in Hong Kong Waters**

INTRODUCTION

At the meeting of the Legislative Council Panel on Economic Services on 28 September 1998, Members were briefed on the major findings and recommendations of the Consultancy Study on Fisheries Resources and Fishing Operations in Hong Kong Waters (hereafter referred to as “the Study”) commissioned by the Agriculture and Fisheries Department (AFD). Members were informed that the Administration would conduct a public consultation exercise and, in the light of views received, formulate a fisheries management strategy. The Administration undertook to report progress to Members. This paper summaries the views received during the consultation exercise and sets out the approach that AFD proposes to take in working out the way forward in consultation with the parties concerned.

BACKGROUND

2. The Study indicates that fisheries resources in Hong Kong have declined. It notes that depletion in fisheries resources is an international problem occurring in various parts of the world. To conserve fisheries resources and to promote the sustainable development of the fishing industry, efforts are being made in different places or countries to control fishing operations to avoid overfishing and to restock fisheries resources.

3. To conserve fisheries resources in Hong Kong waters, the Consultants have examined and prioritised 13 management options on the basis of ease of implementation, cost-effectiveness and scientific robustness with reference to the circumstances in Hong Kong. A list of the options and their priorities are at Appendix I. Of the 13 options, the following six are considered to be of high priority and recommended to be implemented first -

- (a) establishing a fishing licence programme;
- (b) limiting entrants;
- (c) setting up nursery and spawning ground protection areas;
- (d) habitat enhancement;
- (e) habitat restoration; and
- (f) restocking.

The medium and low priority management options are recommended to be considered later.

4. As certain fisheries management measures are likely to be controversial, a consultation exercise was carried out between end September 1998 and end December 1998 to solicit views of the public, including major fishermen associations, major green groups, academics, relevant advisory committees and all Provisional District Boards (PDBs), to help formulate a fisheries management strategy suitable for Hong Kong. A total of 18 written representations were received. The list of parties who have made written submissions and a summary of their responses are set out in Appendix II and III respectively.

GENERAL FEEDBACK

5. The majority of the submissions (including those from some fishermen associations) generally support the implementation of management measures to help to rebuild fish stocks in Hong Kong waters. They also agree with the Consultants that the six high priority management options should be implemented first. However, some fishermen associations raise objection because they are concerned that the proposed fishing licence programme may limit the development of the fishing industry and that the other fisheries management measures (such as protection of nursery and spawning grounds, habitat enhancement etc.) may not be cost-effective and not achieve economic value in the case of Hong Kong.

6. Amongst those supportive of the Consultants' recommendations, there are also divergent views on the extent and pace of implementation. Fishermen's main concern is the likely impact of the management measures on their livelihood. Some of them suggest that ex-gratia payment should be made to affected fishermen to compensate them for the possible loss of fishing grounds resulting from some of the proposed management measures. On the contrary, green groups press for a faster pace of implementation of fisheries management measures and suggest that additional measures be adopted to rectify the present situation.

7. Apart from the high priority options, other options are also suggested in the submissions, including the control of the use of non-selective fishing methods (such as trawl and trammel nets) in certain areas and the promotion of recreational fishing as an alternative employment for fishermen.

HIGH PRIORITY OPTIONS

Establishing A Fishing Licence Programme and Limiting New Entrants

8. The Consultants recommend that the fishing licence programme should be implemented as a first priority. The programme would enable the Government to take a more proactive role in managing fishing activities. It would also provide valuable information about fishing operations, such as gear type, catch and area fished,

which are important for stock assessment and fisheries management purposes.

9. The Consultants also propose that upon the establishment of the fishing licence programme, fishing in Hong Kong waters should be restricted to existing vessels with fishing licences and no licences should be issued to new entrants, with a view to containing the number of fishing vessels at the present level. They also suggest that this measure should be kept under regular review in the light of the prevailing fish stock levels.

10. The majority of the submissions support the fishing licence programme and limiting new entrants. Some fishermen organisations however suggest that the licensing programme should first be introduced in some selected areas only. Others raise objection to these two options as they are concerned that they would limit their fishing operations in Hong Kong waters and thus affect their livelihood.

Establishing Nursery and Spawning Ground Protection Areas

11. This option involves either restricting or prohibiting all forms of fishing in areas where commercially important fish species are spawning, or where there are high abundance of fry or juveniles. The Consultants have identified most of the eastern and southern waters (about one third of Hong Kong waters) as spawning and nursery areas for protection. Amendments to the Fisheries Protection Ordinance would need to be made to provide legal backup for the implementation of the proposal.

12. This is a controversial option and views received are divergent. Green groups give full support to its implementation. On the other hand, some fishermen associations and Provisional District Board members suggest that the establishment of nursery and spawning protection areas should first be introduced in some selected areas only. Other fishermen associations objected to the option because they are worried about its impact on the livelihood of fishermen.

Habitat Enhancement and Habitat Restoration

13. On habitat enhancement, the Consultants recommend that the deployment of Artificial Reefs (ARs) and the management of AR sites should be implemented to provide an effective means for rebuilding fish stocks in Hong Kong waters. On habitat restoration, the Consultants recommend that opportunities to restore disturbed habitats be pursued whenever practical.

14. These options represent existing measures that AFD has been undertaking in the rehabilitation of fisheries resources in Hong Kong waters. With regard to habitat enhancement, AFD is implementing the AR programme and results to-date are encouraging. With regard to habitat restoration, Environmental Impact Assessments

(EIAs) are required to be prepared for all designated projects under the Environmental Impact Assessment Ordinance. The Guidelines for the Ordinance, i.e. the relevant EIA Technical Memoranda, encourage projects to identify opportunities for post-project habitat restoration. AFD is responsible for examining the ecology and fisheries impacts and will continue to pursue opportunities to restore disturbed habitat under this legislative framework.

15. The majority of the submissions are supportive of these options but some fishermen associations question the cost-effectiveness and the economic value of these measures in enhancing fish stocks in the case of Hong Kong.

Restocking

16. It has been reported that restocking with proper management helps rebuild depleted fisheries resources and is a useful tool for resources enhancement. This option can be complementary to other high priority options, such as habitat enhancement or protection of sensitive areas. Restocking is now being employed in many places in the region, including Japan and Taiwan. Juveniles of commercial species grown in hatcheries are released into the sea for later capture as adult fish. In view of the mixed results observed with programmes of this sort in Japan and to ensure funds for such a costly project would not be wasted, the Consultants recommend that a trial be conducted prior to embarking on a substantial programme. The trial would examine the best time, location and species for restocking and the return rate of the released fish.

17. There are divergent views on this option. Some fishermen associations believe that restocking is the most effective means to rehabilitate the depleted resources and its implementation would provide good incentive for the fishermen to cooperate and support the fisheries management strategy. However, some question its cost-effectiveness and economic value. Local green groups caution that restocking should only be attempted in a well-managed fishery.

MEDIUM AND LOW PRIORITY OPTIONS

18. The Consultants are of the view that the medium priority options show promise but existing obstacles have to be overcome before they can be implemented. Options ranked as medium priority include establishment of a demersal trawl ban, introduction of fishing quotas, mesh size regulation and establishment of pelagic fisheries protection areas. The Consultants do not recommend the implementation of low priority options, including restricting age/size at first capture, banning unselective gear and sea ranching, at this time due to drawbacks including cost implications, lack of sufficient scientific information etc. However, in some of the submissions, those pressing for a faster pace of control over fishing activities suggest that some of the medium priority measures should be implemented first.

WAY FORWARD

19. Given the divergent views received during the consultation period, AFD has set up a Working Group on Fisheries Management to advise on matters relating to the formulation and implementation of fisheries management strategy in Hong Kong waters. Such matters include, among others, the case for implementing the six high priority management measures recommended by the Consultants and the extent and pace of implementation. The Working Group comprises representatives from the fishing community, green groups, academic and relevant government departments/bureau. The first Working Group meeting was held on 9 June 1999 and members had useful discussions on various management issues. AFD will further discuss with the Working Group and take their views into account in the formulation of the fisheries management strategy.

Economic Services Bureau/
Agriculture and Fisheries Department

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Prioritisation of Fisheries Management Options

Management Option	Ease of Implementation	Cost Implications	Scientific Basis	Priority
1. Fishing License	New procedures and government administrative units would be required to supplement existing permits system.	Incur ongoing administrative costs, and some enforcement costs. A licensing fee could be used to recoup costs.	Licenses are an ideal means of assessing and controlling fishing operations and would generate key information for fisheries management.	High
2. Limiting Entrants	Limiting new entrants would be less controversial than restricting existing fishers	May require a buy-back scheme; may encourage speculation.	Alone this measure does not guarantee a reduction in fishing effort but over time it could result in a decrease in effort as vessels leave the fishery.	High
3. Nursery and Spawning Areas	Closed areas may be opposed by fishermen and may lead to overfishing in other areas.	Enforcement effort can be concentrated in specific areas.	Would protect key areas and key seasons from fishing pressure with potentially large benefits to stocks.	High
4. Habitat Enhancement	Fishermen would support ARs as long as interference with existing fishing activities is minimised.	Capital investment in artificial reefs, and maintenance and enforcement costs may be significant.	Expected to enhance production of high value species and would protect some areas from the impacts of trawling.	High
5. Habitat Restoration	Could be achieved through mitigation of coastal/marine project's impacts.	Cost could be incorporated into project budget as mitigation cost.	Actual benefits to the fishery remain to be studied/quantified.	High
6. Restocking	Implementation would be relatively easy and possibly beneficial to habitat enhancement areas and protected areas.	Cost expected to be high, but have not been studied in detail.	Recommended that a pilot scheme be tested before embarking on an intensive programme.	High
7. Introduction of Quotas	Requires a fishing license system.	Monitoring and enforcement costs may be significant.	Sufficient data not yet available to support implementation.	Medium
8. Mesh Size	potential unfair burden on fishing operations which target small organisms (eg. prawns).	Monitoring costs are low but enforcement would require costly onboard inspections.	Optimal mesh size has been determined through bioeconomic modelling.	Medium
9. Trawl Ban	Would be strongly opposed by trawlers.	Relatively easy to enforce through port and sea-based gear inspections.	Ecosystem modelling has shown this option would allow demersal fish and prawn stocks to recover.	Medium
10. Pelagic Protection Area	Would be strongly opposed by purse seiners, gillnetters and other pelagic fisheries fishermen.	As much pelagic fishing takes place at night, enforcement would be relatively more difficult than for option nos. 3&9.	Ecosystem modelling has shown this option would allow pelagic stocks to recover which in turn would benefit their predators, ie large demersals.	Medium
11. Restrict Age/Size	Requires measurement on board and inspection in landing ports.	Monitoring and enforcement costs may be significant.	Could involve wastage of undersized individuals.	Low
12. Ban Unselective Methods	Would require a major restructuring of the fishery since at present the major gear types are unselective.	Relatively easy to enforce through port and sea-based gear inspection.	Alternative (selective) gear technologies are not presently available.	Low
13. Sea Ranching	Implementation would be relatively easy.	Costs expected to be high, but have not been studied in detail.	Scientific basis insufficient at this time to recommend pursuing this option.	Low

List of Submissions Received during the Consultation Period

(A) Fishing Community

1. The Joint Committee of Hong Kong Fishermen's Organization (JCHKFO)
(The Organization represents more than 60 major fishermen associations)
2. Hong Kong Fishery Alliance (HKFA)
(The Alliance represents 14 fishermen associations)
3. Tai Po trawlers Fishermen's Co-operative Society Unlimited (TPTFCSU)
4. A fishing vessel builder

(B) The Advisory Committees

5. Advisory Committee on Agriculture and Fisheries (ACAF)
6. ACAF Aquaculture and Capture Fisheries Sub-Committees (ACAF-SC)
7. Marine Parks Committee (MPC)
8. Advisory Council on the Environment (ACE)
9. A member of MPC

(C) Provisional District Boards

10. Agriculture, Fisheries, Commerce & Industries Committee under the Tai Po Provisional District Board
11. Islands Provisional District Board
12. Central & Western Provisional District Board

13. Tuen Mun Provisional District Board

(D) Green Groups / Professionals

14. The Marine Biological Association of Hong Kong (MBAHK)

15. World Wide Fund For Nature Hong Kong (WWFHK)

16. A post-graduate student of Hong Kong University of Science and Technology

17. A lecturer of Hong Kong University

18. An individual

Summary of Responses from the Consultation Exercise

Comments and Suggestions on the proposed high priority management options

(1) & (2) Establishing a fishing licence programme and Limiting entrants to the fishery

- The majority of the submissions support full implementation of the options.
- Some submissions support the implementation of the options on condition that the associated administrative and enforcement costs would not be borne by fishermen.
- One submission supports the implementation of the options in selected areas only.
- One submission does not support the proposal.
- One submission objects to the proposals.

(3) Establishing nursery and spawning ground protection areas

- The majority of the submissions fully support this option.
- Some submissions support the implementation of the option in selected areas only.
- One submission raises objection to the proposal.

(4) Habitat enhancement

- The majority of the submissions support the implementation of habitat enhancement by deployment of ARs if combined with proper management measures.
- One submission supports the implementation of the option in selected areas only.
- Some submissions support the option if ARs are to be deployed outside the trawlers' fishing grounds.
- One submission supports the AR option if ex-gratia allowances are paid to affected fishermen.

- One submission does not support the option.
- One submission raises objection to the option.

(5) Habitat restoration

- The majority of the submissions support the option.
- One submission suggests the introduction of offsite mitigation measures to help rehabilitate the damaged environment.
- One submission raises objection to the option.

(6) Restocking

- The majority of the submissions support full implementation of the option.
- Some submissions support the implementation of the option in areas of ARs first.
- One submission supports implementation of the programme in selected areas only.
- Some submissions do not support the proposal until a well-managed fishery is developed.
- One submission raises objection to the proposal.

Other Management Suggestions not discussed in the Study

- Some submissions suggest to ban the use of trammel net which has poor size selectivity, i.e. fish are to be caught by the net regardless of the size of the fish.
- Some submissions consider that the nature of Hong Kong fishery should be encouraged to change from a commercial oriented industry to a recreational one to help reduce fishing effort.
- Some submissions point out that there is a need to increase the fisheries resources base by developing distant water fishing.

- One submission suggests that the option of granting Territorial User Right in Fisheries to local fishermen should be considered. with a view to fostering a sense of responsibility for better management of the fisheries resources in Hong Kong waters.
- One submission suggests to set up a central fund to carry out offsite environment rehabilitation measures to mitigate environmental impacts of development projects on fisheries resources.