

**For discussion on
2 April 2019**

**Legislative Council
Special Meeting of the Panel on Food Safety and Environmental Hygiene**

Proposal to Strengthen the Management of Licensed Marine Fish Farms

Purpose

This paper outlines the proposal to strengthen the management of licensed marine fish farms and the support provided to the mariculture sector.

Background

2. The Government briefed the Panel on the development of mariculture (LC Paper No. CB(2)748/18-19(07)) on 12 February 2019, including among others, the proposal for the Agriculture, Fisheries and Conservation Department (“AFCD”) to strengthen the management of fish culture zones (“FCZs”) for better utilisation of culture area. To encourage licensees to actively engage in mariculture, AFCD is currently consulting the mariculture sector on requiring fish rafts to attain a certain level of production.

Current Situation of Local Mariculture

3. All marine fish culture activities are required to operate with valid marine fish culture licence (“MFCL”) in designated FCZs under the Marine Fish Culture Ordinance (Cap. 353) (“Ordinance”). Currently, there are a total of 930 licensed fish farms¹, covering a total licensed area of about 27 hectares, in 26 FCZs (which span a total sea area of about 209 hectares). Based on AFCD’s observation and assessment, about 20% of licensees are actively conducting mariculture activities on rafts. Productions of some individual fish farms may even exceed ten tonnes per annum. However, the remaining 80% of licensees maintain an extremely low level of mariculture activities while some rafts are left idle. The local mariculture productions kept decreasing, from about 3 000 tonnes per annum in 1990s to 850 tonnes in 2018. It is estimated based on AFCD’s statistics that about 90% of the said annual

¹ As of 28 February 2019

productions came from the more active fish farms.

4. Active fish farms are more willing to invest in upgrading culture facilities and introducing new technologies, including establishment of the recirculation culture (fry culture) system on rafts, use of wave resistant high-density polyethylene cage system for mariculture, and test breeding of new or high-value fish species, such as white flower croakers, whiteleg shrimps, orange-spotted spinefoot and pearl oysters. These marine fish farmers also are able to find the room in the local market to promote and sell their quality products.

Support Measures for the Mariculture Sector

5. The Government strives to promote the sustainable development of aquaculture by providing appropriate supports and environment to encourage fish farmers to upgrade their management and technical standards for providing quality fisheries products to the public. We have been implementing various measures in stages according to the recommendations of the Committee on Sustainable Fisheries², including enhancing technical support and training to the fisheries sector, promoting the adoption of advanced and environmentally-friendly culture practices, applying new technology for monitoring water quality and red tides, funding aquaculture-related research projects, exploring the designation of new FCZs and issuing new MFCLs, etc. The support measures provided to the sector are set out in the following paragraphs.

6. In recent years, AFCD has been introducing new technologies such as implementation of a real-time water quality monitoring system and test run of real-time phytoplankton imaging and computer modelling tools to detect changes in water quality and occurrence of red tides, so as to give timely alerts and reduce the risks of red tides to fish farmers. In the past three years, AFCD issued a total of about 200 alerts to fish farmers.

7. On improving water quality, AFCD deploys biofilters in suitable FCZs and advises fish farmers on the use of feed to improve the water quality of the zones. The Environmental Protection Department has been implementing various measures over the years to protect and improve water quality, including strictly enforcing control on sewage discharge, planning for sewage collection and treatment facilities, reducing the potential impact of

² The Committee on Sustainable Fisheries was established by the Government in December 2006 to study the long-term goals, the direction and feasible options for sustainable development of the local fisheries sector. The Report of the Committee on Sustainable Fisheries (LC Paper CB(2)1472/09-10(03)) was discussed at the FSEH panel meeting on 11 May 2010.

development projects on water quality through environmental impact assessments and planning. In recent years, there is an overall improvement in the environmental conditions in most FCZs where nitrogen loading (the most serious environmental problem brought about by mariculture) was reduced by more than 90% from 1990 to 2018.

8. To enhance the skill level of the mariculture sector and its competitiveness, AFCD has been studying fish culture operations and new species, and transfers relevant technical skills to fish farmers. Also, AFCD is planning to set up a modern mariculture demonstration farm in Hong Kong to serve as a base for promoting modern mariculture technologies as well as training and research purposes. Moreover, AFCD has been adopting a multi-pronged approach in promoting modern fish farm and health management practices to fishermen through training workshops, seminars and on-farm demonstrations, with a view to helping them adopt a more efficient culture method and improved culture technologies. So far, more than 2 200 fishermen have joined these training courses.

9. The Government has been providing financial assistance through the \$500 million Sustainable Fisheries Development Fund (“SFDF”) since 2014 to help the fisheries sector move towards sustainable or high value-added operations and enhance the overall competitiveness of the fisheries sector. Eleven applications have been approved, among which nine projects seek to promote the development of local aquaculture. To enhance fish health and biosecurity measures of fish farms, SFDF funds the Jockey Club College of Veterinary Medicine and Life Sciences of City University of Hong Kong for providing on-site veterinary and vet drug prescription services to fish farms to improve culture efficacy. To promote modernisation of the fisheries sector, the Equipment Improvement Project scheme has been set up under SFDF to help fish farmers acquire equipment for enhancing productivity. AFCD will provide technical support and streamline the application procedures to encourage fish farmers to make good use of SFDF.

10. Apart from the above measures, AFCD and the Fish Marketing Organization (“FMO”) have spared no effort in marketing promotion work. Since 2005, AFCD has been implementing the Accredited Fish Farm Scheme (“AFFS”) to build up a brand name of quality and safety of local aquaculture products so as to enhance the competitiveness of the sector. As of February 2019, 119 fish farms, representing about 23% of the total area of local fish farms, are registered under AFFS. AFCD and FMO have also been actively publicising local quality fisheries products through various promotional activities. Currently, clients include supermarket chains, green food stores, online and mobile phone sales platforms and the catering industry. To help

fish farmers draw up plans to produce local fisheries products that could meet market demand with greater certainty and confidence, FMO is planning to sign procurement contracts with some of the fish farmers registered under AFFS. AFCD has helped match fish farmers registered under AFFS with business clients under a project approved under SFDF recently for opening up sales channels in the catering industry. AFCD also organises FarmFest jointly with the sector to promote local fisheries products, develop local brands and provide quality seafood and delicacies to the public. Now in its thirteenth edition, FarmFest is a well-received function that successfully promotes local fisheries products.

11. Regarding relief support for natural disasters, urgent financial assistance is given to those affected in the agricultural and fisheries sectors, including fish farmers for resumption of their fish farm operations, through the Emergency Relief Fund. The Government adjusts the amounts of the grants annually, taking into account the operational situation of the sector as well as changes in expenditure. Mariculturists in need of capital to re-establish their business may apply to AFCD for low-interest loans from Kadoorie Agricultural Aid Loan Fund as the working capital for resumption of business.

12. In addition, to facilitate the development of mariculture, upgrading and switching to a sustainable mode of operation, and adoption of modern culture techniques, the Government has proposed designating new FCZs at suitable locations in Hong Kong waters, as well as resuming issuance of new MFCLs. The Panel supported this policy direction at the meeting on 12 February 2019.

Strengthening the Management of Licensed Marine Fish Farms

13. We are of the view that proper management of FCZs and effective use of finite culture area are essential to the sustainable development of mariculture. Some members of the mariculture sector have opined that the Government should effectively manage FCZs and make best use of the culture areas so as to expand the rooms for active mariculturists' further development and create an environment conducive to interested newcomers' joining the business. Apart from designating new FCZs and issuing new MFCLs, some members of the sector agree that it is necessary for AFCD to properly manage existing FCZs, as prolonged idling of fish rafts is not desirable and will hinder the development of the sector.

14. Marine fish culture involves the use of public resources of Hong Kong waters. The main objective of the Ordinance is to regulate and protect marine fish culture. To rectify the current idling situation of fish rafts and promote sustainable development of mariculture, AFCD, as the licensing authority, has the responsibility to strengthen the management of licensed marine fish farms so as to ensure the effective use of public resources. At present, the licence conditions require that the licensees shall “maintain raft(s) actively engaged in fish culture”. In handling an appeal case against the cancellation of an MFCL, the Administrative Appeals Board (“AAB”)³ pointed out that AFCD had adopted a rather lenient approach in considering whether the licensee had “maintained the raft(s) actively engaged in fish culture”. In order to enforce the licence conditions effectively and make the requirements clear to licensees for conducting culture operations, AFCD intends to lay down standards in the licence conditions of what “maintain the raft(s) actively engaged in fish culture” entails, which should be reflected in the operations and output of fish rafts.

15. AFCD has considered the views of AAB on how to strengthen the management of licensed marine fish farms. In drawing up the preliminary mariculture standards, AFCD uses fish cages and output as the basis, taking into account existing practices of fish farmers, environmental factors and cost analysis. From the standpoint of optimising the use of public resources, fish rafts should be constructed as close to the licensed area as possible and maintain a certain level of production. Recognising that, in practice, certain part of the fish raft must be set aside for installation of ancillary facilities (e.g. equipment and feed storage, watch sheds and structural partitions of rafts) and thus could not be fully used for fish cages, AFCD recommends that the area of fish cages should not be less than 70% of the raft. In setting the production standard, AFCD takes into account the findings of annual statistical surveys that the median production is about 20 kg/m² for active fish farmers, and over 50 kg/m² for top producers. AFCD recommends that the output should reach the level of 10 kg/m² during the production cycle.

16. AFCD recognises the fact that the operational conditions may vary from one fish farm to another during the production cycle. AFCD will observe the production situation during inspection visits to fish farms, provide technical advice and allow sufficient time for licensees’ compliance. If a fish farm persistently fails to meet the requirements over a reasonable period of

³ AAB, established under the Administrative Appeals Board Ordinance, Cap. 442, will hear and determine appeals against a decision made in respect of an appellant. AAB’s jurisdiction covers certain decisions made by the Director of Agriculture, Fisheries and Conservation under the Marine Fish Culture Ordinance.

time, AFCD will request for an improvement plan from the licensee, who will be given sufficient time to improve the operation according to the plan. Only if the licensee fails to carry out the plan to improve the operation without justifications will AFCD take actions, such as non-renewal or cancellation of the licence as provided in the Ordinance. If the licensee is aggrieved by AFCD's decision to cancel the licence, he or she may appeal to AAB. The licence will remain valid until the case is determined by AAB.

Consultations

17. AFCD has been liaising with the fisheries organisations (at **Annex**) on the proposal to strengthen the management of licensed marine fish farms. In December 2018, AFCD wrote to all licensees to invite them to attend consultation sessions. From January to March 2019, eight consultation sessions were held to listen to the views of licensees and other stakeholders. AFCD also attended a meeting of the Tai Po District Council to discuss the mariculture standards on 7 March 2019, and provided information to Sai Kung District Council in writing for its discussion on the same subject.

18. Based on the views collected during the consultation period, the majority of fish farmers have expressed that they lacked confidence in the prospects of mariculture and were not prepared to invest in their fish farms to increase productions. As they are concerned that they might lose their licences for failing to meet the proposed standards, they are opposed to the proposal. The problems they have raised about mariculture are summarised as follows:

- Operating environment: poor water quality of FCZs
- Susceptibility to weather conditions: the threats of red tides and typhoons
- Commercial considerations: high costs, low competitiveness and lack of marketing channels for local mariculture products
- Technical issues: low survival rate for cultured fish, fish fry and feed supply problem, insufficient support from the Government

19. Besides, some participants questioned the legal basis for AFCD to add mariculture standards in the licence conditions. AFCD explained at the consultation sessions the considerations and justifications of the proposal as well as the various support measures provided to the sector. There were views

that the Government should launch a “buy-back” scheme for inactive mariculturists to surrender their licences and leave the business. AFCD does not have any plan to put forward such a scheme.

The Way Forward

20. AFCD will continue to listen to views of the mariculture sector, including those on the feasibility of mariculture standards, implementation timetable and the Government’s support measures. AFCD will only implement the new requirements after thorough discussion and consultation with the sector as well as allowing sufficient time for compliance. The Government will continue to implement appropriate support measures to promote the sustainable development of mariculture so as to provide the public with quality local fisheries products.

**Food and Health Bureau
Agriculture, Fisheries and Conservation Department
March 2019**

Marine Fish Culture Licence – Mariculture Standards
Organisations Consulted

Fishermen Organisations	
Hong Kong Fishermen Consortium	Tai Po Yim Tin Tsai (E) Marine Fish Culture Business Association
Hong Kong Quality Aquaculture Development Association	Tai Po Yim Tin Tsai Marine Fish Culture Business Association
Federation of Hong Kong Aquaculture Associations	The N.T. Sum Wan Fishermen's Recreation Club
New Territories Fishermen Fraternity Association Limited	The Sha Tau Kok Kat O Fish Culture Association
Hong Kong Fishing Villages Representatives Association	Leung Shuen Wan Fish Culture Business Association
Hong Kong Fishing Rafts Association Limited	Sai Kung District Fishermen Association
Yung Shue Au Marine Fish Culture Business Association	Ma Wan Fisheries Rights Association Limited