

**Appendix 14.5 Common Aquaculture in Hong Kong (Ma Wan Aquaculture/
 Lau Fau Shan Oyster Farm)**



Plate 1 Ma Wan Aquaculture Interview



Plate 2 Ma Wan Aquaculture Interview



Plate 3 Ma Wan Aquaculture Rafts



Plate 4 Oyster Aquaculture in Lau Fau Shan



Plate 5 Oyster aquaculture activities



Plate 6 Oyster harvesting



Plate 7 Overview of Lau Fau Shan oyster culture zone

Culture Fisheries

There are 13,200 m² of aquaculture rafts in the Ma Wan Fish Culture Zone (FCZ) with about 50 aquaculturists operating marine fish culture. The Ma Wan FCZ is divided into three zones, namely zone A, zone B and zone C. Aquaculturists rear species of higher market value, such as orange-spotted grouper (*Epinephelus coioides*), goldlined seabream (*Rhabdosargus sarba*), giant grouper (*Epinephelus lanceolatus*), etc. In general, they bought juvenile fish from Southeast Asia, such as Indonesia and Malaysia for rearing up to marketable size. It usually takes around 12 to 18 months for orange-spotted grouper to grow to market size (about 1.2-1.5 kg). The mortality rate of the fish is about 80% according to the aquaculturists. Most of the aquaculturists pointed out that water quality is the major factor that influences the fish mortality rate.

The mudflat at Lau Fau Shan in Deep Bay is the only area for oyster culture activities in Hong Kong. In 2013, Lau Fau Shan produced about 108 tonnes of oyster (meat only) valued at HK\$9 million (AFCD, 2014). San Pui and Lau Fau Shan are located at northwestern Hong Kong and about 14 km away from the proposed project area. Lau Fau Shan is enclosed by Deep Bay, and is shallow and has low wave action. The oyster culture zone is situated along the muddy intertidal shore, which receives fluvial discharges from 7 river channels (namely River Indus, River Ganges, River Beas, Kam Tin River, Yuen Long Creek, Fairview Park Nullah and Tin Shui Wai Nullah). The unique conditions of Lau Fau Shan are particularly suitable for oyster culture.

Brackish water in Lau Fau Shan provides an ideal natural growth environment for oyster. There were approximately 5,000 oyster rafts sized 8 m x 16 m and operated by 70-80 mariculturists (oyster owners). Raft culture method was the most common practice found in Lau Fau Shan, i.e. pre-mature oysters stuck on the concrete tile or cultch and tied vertically on mudflat. Since the improvement of technology, some farmers turned to fattening of medium size oyster imported from Mainland China instead of traditional culture starting from spat collection in Deep Bay. This technology has significantly shortened the harvest time from 4-5 years to 6-9 months, and greatly improved the income for the farmers.

Between February and April the salinity of the water is not suitable for oyster cultivation, so pre-mature oyster are usually cultivated between May and July. The oysters take around 6-9 months to grow to marketable size, and hence only one crop harvest is produced each year (normally after mid-autumn

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festival in October). More than 90% of oysters were sold to Mainland China while the remainder were sold to the seafood markets in Hong Kong.

References

AFCD (2014) Marine fish culture, pond fish culture and oyster culture. Available at
http://www.afcd.gov.hk/english/fisheries/fish_aqu/fish_aqu_mpo/fish_aqu_mpo.html