

Country and Marine Parks Board
Summary Report of the Marine Parks Committee

1. Purpose

1.1 This paper aims to inform members of issues discussed at the Marine Parks Committee meeting held on 15 November 2016. Major issues discussed at the meeting are summarised below.

2. Hard Coral Restoration Study at Hoi Ha Wan Marine Park

2.1 The Agriculture, Fisheries and Conservation Department (AFCD) briefed members on AFCD's work to address the issues of partial mortality and bio-erosion of corals in Hoi Ha Wan Marine Park (HHWMP). AFCD reported that a research team from the Swire Institute of Marine Science, the University of Hong Kong was commissioned to conduct the Hard Coral Restoration Study.

2.2 The research team briefed members on the methodology of the study and answered members' questions on the research methods and the proposed restoration work such as creation of artificial coral structures through 3D-printing. As regards the current health condition of coral colonies found in HHWMP, they informed members that while the mortality event affected certain coral species, for example *Platygyra*, *Porites* and *Favites*, to a greater extent, the health conditions of other corals such as *Pavona* and *Goniopora* were fair. Members also noted that major coral loss at HHWMP was found in Moon Island whereas health conditions of coral communities in other major coral areas, such as Coral Beach, Gruff Head and the Pier area were relatively stable.

2.3 In response to members' question on the possible cause of the coral partial mortality, the research team stated that it has been influenced by many environmental factors, whilst the occurrence of red tide causing toxic substances accumulating in the coral itself might be one of the possible causes. The current study would help identify the possible causes of the partial mortality and bio-erosion of corals and based on which they could formulate restoration strategy and measures for the coral

communities in HHWMP.

2.4 After discussion, the Committee expressed support to the study and agreed to the proposed restoration work, including creating artificial coral structure through 3D-printing starting with a smaller scale, and that no culling of *Diadema setosum* should be done for the time being. AFCD stated that they would closely collaborate with the research team and step up the coral and environmental monitoring in HHWMP, especially over the coming winter months when red tide usually occurs.

3. Fisheries Resources Surveys at Existing and Proposed Marine Parks, and Cape D’Aguilar Marine Reserve

3.1 AFCD and their consultants briefed members on the fisheries resources surveys which aimed to update the status of adult fisheries resources in existing and proposed marine parks and Cape D’Aguilar Marine Reserve and to recommend the survey protocol for future monitoring.

3.2 Members expressed their support to the surveys and were of the view that the study should be ongoing in order to provide useful data to assess the effectiveness of marine parks/ reserve on enhancement of fisheries resources. Members also advised AFCD to define and adopt a standard survey protocol for the surveys, so that it could be replicated for future studies.

3.3 Given that it will take two years to complete the surveys, AFCD and their consultant agreed that an interim report will be submitted to the Committee to report the progress of the surveys.

4. Advice sought

4.1 This paper is prepared for members’ information.