

Confirmed Minutes of the Nature Conservation Subcommittee Meeting
held on 23 June 2016 at 10:00 am
in Room 1523, 15/F, East Wing, Central Government Offices, Tamar

Present:

Prof CHAU Kwai-cheong, BBS, JP (Chairperson)
Ir Cary CHAN
Prof FUNG Tung
Dr Billy HAU
Mr Stanley WONG, SBS, JP
Prof John NG
Ms Becky LAM (Secretary)

Absent with Apologies:

Dr Michael LAU
Prof Albert LEE
Prof Nora TAM, BBS, JP
Dr Eric TSANG
Ir Conrad WONG, BBS, JP
Ms Pansy YAU

In Attendance:

Environmental Protection Department (EPD)

Mrs Vicki KWOK	Deputy Director of Environmental Protection (2)
Mr Elvis AU	Assistant Director (Nature Conservation and Infrastructure Planning)
Ms Vivian CHAN	Senior Administrative Officer (Nature Conservation)
Ms Aidia CHAN	Forestry Officer (Nature Conservation)
Miss Dora CHU	Executive Officer (CBD)

Agricultural, Fisheries and Conservation Department (AFCD)

Mr Simon CHAN	Assistant Director (Conservation)
Dr Winnie KWOK	Senior Conservation Officer / Technical Services
Ms Sunny CHOW	Wetland and Fauna Conservation Officer (Wise Use)

In Attendance for Item 2:

Hong Kong Bird Watching Society

Mr NG Cho-nam	Vice-chairman
Mr YU Yat-tung	Research Manager
Mr CHUNG Chun-kit	Project Officer

Action

The Chairman welcomed Members to the first meeting of the Nature Conservation Subcommittee (NCSC) in 2016, and he welcomed Mrs Vicki Kwok, Ms Becky Lam and Miss Dora Chu of the Environmental Protection Department (EPD), who joined the NCSC meeting for the first time. He informed Members that the ACE secretariat had taken up the secretariat role of the NCSC and Ms Becky Lam was the current secretary of NCSC.

2. The Chairman informed Members that apologies of absence had been received from Dr Michael Lau, Prof Albert Lee, Prof Nora Tam, Dr Eric Tsang, Ir Conrad Wong and Ms Pansy Yau.

Item 1 : Confirmation of the minutes of the meeting held on 10 December 2015

3. The draft minutes of the last meeting held on 10 December 2015 was circulated to Members on 25 April 2016. Comments from Members had been incorporated in the revised draft minutes sent to Members on 17 June 2016. The minutes were confirmed with no further comments from Members.

Item 2 : Matters Arising

4. At the invitation of the Chairman, Ms Vivian Chan briefed Members on the latest status of the two Nature Conservation Management Agreement applications as discussed at the last meeting, which included the Management Agreement (MA) on the Private Land with High Conservation Value at Fung Yuen Valley Site of Special Scientific Interest in Tai Po, as well as the Rehabilitation Project for Sai Wan Area. The key points were highlighted below:-

- The Fung Yuen MA had commenced on 1 February 2016 and the first progress report would be submitted to EPD in September;
- As for the Rehabilitation Project for Sai Wan Area, the meeting of the Environment and Conservation Fund Committee (ECFC) held in December 2015 had advised to adjust downward the proposed budget for renting the agricultural land;
- In view of the reduced budget for renting the agricultural land, the applicant had been liaising with the land owners on the rent for agricultural land. As more time was needed for the liaison, approval had been given to extend the deadline for the applicant to confirm acceptance of the approved fund to 29 July 2016;
- EPD would keep monitoring the progress of the two projects and report to the NCSC on a regular basis.

5. A Member agreed that the land rent should be at a level compatible to the market rate.

Item 3 : Progress of Implementation of two Nature Conservation Management Agreement Projects
(NCSC Paper 1/2016)

6. The Chairman informed Members that the paper provided an update on the latest progress of the following MA projects:-

- (i) Fishpond Conservation Scheme in Ramsar Site 2015-17; and
- (ii) Hong Kong Got Fishpond – Eco-fishpond Management Agreement Scheme 2015-17

He recapped that under the MA scheme, the Environment and Conservation Fund (ECF) approved in February 2015 around \$6.6 million each for the two MA projects on the conservation of fish ponds in the Northwest New Territories carried out by the Hong Kong Bird Watching Society (HKBWS).

7. A Member declared that he was a member of HKBWS. Members agreed that the Member could stay on and participate in the discussion.

8. As invited by the Chairman, Ms Sunny Chow briefed Members on the background, key objectives and scope of the two MA projects. She further recapped the advice of NCSC provided at the meeting on 22 December 2014 and gave an overview on implementation progress of the MA projects.

[Representatives of HKBWS joined the meeting at this juncture.]

9. Mr Yu Yat-tung introduced the objectives and goals of the MA projects, and explained that as the two MA projects had a highly common interface, a majority of the monitoring surveys and implementation programmes had been launched simultaneously. He and Mr Chung Chun-kit briefed Members on the implementation progress of the projects.

10. The Chairman opined that the effectiveness of the projects should be assessed mainly in terms of the knowledge, behavioural and attitude change of the general public, rather than the amount of income generated. He said that a larger sample size for conducting the surveys should be achieved to support the analysis of the effectiveness of the projects.

11. A Member agreed that the financial return of the projects was not a major concern, and a greater focus should be placed on the participation rate of the activities held. He pointed out that amongst the total targeted number of participants; the majority had only participated in off-site education activities without a chance to visit the fishponds. In reply to the Member's question concerning the constraints leading to the small numbers of participants in on-site activities, Mr Chung Chun-kit said that while the number of volunteers was sufficient, the main issue laid in the inaccessibility of the fishponds and the

lack of ancillary facilities. He explained that with narrow roads for accessing Nam Sang Wai and Tai Sang Wai, the size of the coaches for transporting visitors to the sites was constrained. He also mentioned that permission from the Lands Department had to be obtained for setting up the education kiosk at Nam Sang Wai. Such applications were sometimes met with objections from local organizations on the grounds that the increased visitor flow would create burden on the narrow roads at Nam Sang Wai. Mr Chung, however, agreed that more on-site activities could be considered in future. Dr Ng Cho-nam solicited the Government's support in facilitating the processing of applications for organizing exhibitions in Nam Sang Wai, such that the exhibitions would not have to be moved from time to time. A Member considered that the number of participants was not high and it was unlikely for those exhibitions to seriously affect the traffic at Nam Sang Wai. Mrs Vicki Kwok agreed to help facilitate the applications as far as possible, and asked the HKBWS to provide EPD with relevant information.

HKBWS

(Post-meeting note: HKBWS provided relevant information on the applications for organizing exhibitions at Nam Sang Wai to EPD on 8 July 2016. EPD would help facilitate the applications as far as possible.)

12. A Member suggested appealing to the private sector for conducting on-site corporate activities. In order to assess the benefits of the drain-down practice of fishponds to the ecosystem, he wondered if the practice had increased the number and/or diversity of birds of the Deep Bay wetlands or just attracting birds from the nearby area to the drained ponds. Mr Yu Yat-tung said that before the launch of the MA projects, fishermen tended to abandon their fishponds to look for other work opportunities elsewhere. The MA projects provided incentive to the fishermen to stay and continue with pond fish farming and pond draining, thus retaining the ecological value of the fish ponds. Regarding the number of birds in the wider Deep Bay wetlands, while some experts anticipated that the number of birds in the East Asia would drop in the near future, the number of birds in Hong Kong fluctuated with a slightly increasing trend over the past few years. However, the trend was not easy to ascertain and there were many factors affecting the trend, e.g. the condition of wetlands outside Hong Kong along the migratory flyway, climate and weather, etc. HKBWS would conduct further study to look at the benefits of the MA projects to the Deep Bay area.

13. In response to the Chairman's enquiry on the location of the nearest wetland which was listed as a Ramsar site, Mr Yu Yat-tung and Dr Ng Cho-nam advised that the nearest Ramsar Site which was also important to migratory waterbirds was the Haifeng Wetland Nature Reserve in Guangdong Province. There were also other wetlands that were not listed as Ramsar Sites at Wanqingsha Town at Panyu and in Macau. Mr Yu said that the Mai Po Nature Reserve was one of the most important nature reserves that remained in the southern China region. The Chairman said that Hong Kong, being one of the

important stopovers of the migratory flyway, should contribute more to bird conservation.

14. Considering that waterbirds including egrets and herons benefited most from the drain-down practice of fishponds, a Member said that egretty counts and nesting colony surveys conducted by HKBWS at Deep Bay should be able to clearly reflect the effectiveness of the MA projects in bird conservation. While pointing out that there could be discrepancies in egretty counts, Mr Yu Yat-tung said that the increased counts in 2015 could possibly be attributed to increased feeding opportunities created by draining fishponds. He added that the nearby drained fishponds, by providing food to the egrets, might contribute to the Mai Po Nature Reserve being used again as a breeding ground for egrets after many years. However, he also noted a drop in egretty counts in the current year. While such a drop might be caused by the extreme weather conditions, he said that further studies had to be conducted to investigate the main factors accounting for the changes in egretty counts. The Member suggested that in-depth studies on egretty covering also habitats outside the Deep Bay could be conducted, such that it could be identified whether changes in egretty counts were attributable to climatic factors.

15. In view of the ecological importance of the Mai Po Inner Deep Bay Ramsar Site and the development threats of the nearby area, Mr Elvis Au considered that the MA projects contribute to maintaining the ecological value of the Deep Bay wetlands, which might otherwise diminish due to lack of conservation management. Moreover, the fish ponds within the Wetland Buffer Area serve as a buffer between the Mai Po Inner Deep Bay Ramsar Site and nearby development. Maintaining the ecological value of the fishponds would also contribute to the overall ecological value of the whole region. A Member agreed and said that long-term monitoring of egretty would provide invaluable data for evaluating the long-term effectiveness of the conservation measures.

16. Dr Ng Cho-nam agreed with Mr Elvis Au that it was challenging, however important, to retain the ecological value of the buffer area. With reference to a report by the National Aeronautics and Space Administration (NASA), the Pearl River Delta (PRD) was the region with the highest urbanization rate in the past 30 years, and vast stretches of wetlands had been lost. The Mai Po Inner Deep Bay Ramsar Site was the safest stopover site for migratory water birds. He said that the effectiveness of the projects could be observed from the number of birds feeding at the fishponds drained on a rotational basis.

17. As regards public education, Dr Ng Cho-nam said that education programmes had been launched to raise awareness among fishpond operators on the importance of fishpond conservation. This had led to a gradual increase in the number of fishpond operators willing to carry out fishpond management work as a partner, and/or opening up their fishponds for conducting on-site

activities. He said that in collaboration with the Tai Sang Wai village, the Fishpond Festival had been organized from 2014 onwards as an annual event. By entering into an agreement with HKBWS, fishpond operators would not only be required to implement the drain-down practice, but they would also refrain from using lethal bird deterring device which was prohibited by law. This helped conserve birds effectively, and at the same time reduced the resources required for monitoring and prosecuting against illegal activities.

18. A Member expressed his support towards the implementation of the MA projects. With reference to the feedback collected by HKBWS, he pointed out that only 1 out of 8 fishpond operators reflected that the fishpond MA projects were beneficial to the ecosystem. On top of introducing financial incentives to fishpond operators, he opined that more educational activities targeting fishpond operators could be organized so as to enhance their understanding on the importance of fishpond conservation and to achieve greater buy-in. To gain support and promote public engagement, the awareness of the general public on fishpond conservation should also be raised via public education. Mr Elvis Au said that while different stakeholders might have different interests and priorities, such differences were acceptable as long as common interests could be identified and reinforced. Ms Sunny Chow clarified that the concerned feedback was the proactive response of fishpond operators to an open-ended question on the meaning of the MA projects, hence those who had not mentioned that the fishpond MA projects were beneficial to the ecosystem did not imply a disagreement or lack of awareness. Another Member and the Chairman said that improvements to the design of the questionnaires could be considered.

19. Dr Ng Cho-nam said that the ecologically friendly pond fish farming could serve as a good example for other cities in China. The Chairman suggested HKBWS to consider cross-boundary cooperation, in terms of information and experience sharing, and to include the outcomes in the final report of the MA projects. Mr Yu Yat-tung agreed to consider the suggestion and mentioned that some authorities and non-government organizations (NGO) from the Mainland had already approached and consulted HKBWS on its experience in fishpond conservation.

20. The Chairman enquired whether a baseline study would be conducted to evaluate the impact of the proposed residential developments at Fung Lok Wai on the buffer areas. A Member advised that as the project was a designated project defined under the Environmental Impact Assessment Ordinance (EIAO), the project proponent would be required to go through an EIA process and carry out follow up monitoring in accordance with the Environmental Monitoring and Audit (EM&A) manual. Dr Ng Cho-nam said that the existing wise use zone consisting of fishponds at Fung Lok Wai would be maintained as an enhanced and managed Wetland Nature Reserve, which would have different operations and functions compared to fishponds. The project proponent had

proposed to resume the traditional drain-down practice of fishponds after completion of the project to provide food for water birds. A Member opined that it was important to strike a balance between urbanization and conservation. Mr Yu Yat-tung said that while there were difficulties in gaining access to the project site after land resumption by the project proponent, HKBWS would continue to monitor and collect data from the surrounding areas. He mentioned that the abandoned fishponds at Fung Lok Wai were currently observed to be partially covered by weeds and aquatic plants. Mr Chung Chun-kit supplemented that the fishponds had been drained and some were now refilled by rainwater.

21. The Chairman thanked HKBWS for their presentation, and invited them to consider the comments and suggestions provided by the Members. Dr Ng Cho-nam invited Members to a site visit to the fishponds at Northwest New Territories. The Chairman suggested the site visit to be held in Autumn of 2016. Mr Chung Chun-kit said that Members would be invited to the Fishpond Festival to be held in February 2017.

[Representatives of HKBWS left the meeting at this juncture.]

22. A Member said that while the resources should not be committed under the two MA projects, he agreed with the Chairman that baseline measurements should be taken so as to enable the study of the impact of the proposed residential developments at Fung Lok Wai on the buffer areas.

23. A Member brought to Members' attention that a large percentage of the approved funding was distributed to fishpond operators engaging in the projects as financial incentives, and only a small percentage was used for public education. Based on the budget allocation, he was of the view that the participant numbers of the education activities were reasonable. Ms Sunny Chow said that the rate of financial incentives was \$4,900 per ha, with an additional \$700 per ha for fully-drained fishponds. As many of the fishpond operators only tended to their fishponds on a part-time basis and/or as a leisure activity, and in fact frequent drain-downs were not essential to the operation of the fishponds, the Member opined that financial incentives were needed to encourage fishpond operators to perform regular drain-downs. In reply to another Member's concern towards the sustainability of the fish farming industry in Hong Kong, the Member said that with increasing prices of the fish supply from Mainland, there could be a greater demand for local fish supply in the near future.

Item 4 : Conservation of *Aquilaria sinensis* (Incense Tree) in Hong Kong (NCSC Paper 2/2016)

24. The Chairman recapped that the status and conservation of *Aquilaria sinensis* (Incense Tree) in Hong Kong had been discussed at the NCSC meeting

held in December 2013. He invited Dr Winnie Kwok to update Members on the measures undertaken to enhance protection of the species in Hong Kong. With the aid of a powerpoint presentation, Dr Kwok briefed Members on the conservation status of the species in Hong Kong and the enhanced protection measures for conserving the species.

25. A Member shared his encounters on illegal felling of Incense Trees and expressed that it was very difficult to deal with the problem even with fencing and automatic sensors. As it was difficult to catch offenders on the spot, and that the effectiveness of installing metallic tree guards was unknown, the Member opined that greater efforts should be deployed in planting more Incense Trees to compensate for the loss. He also suggested strengthening the enforcement against the smuggling of agarwood specimens out of Hong Kong, which should be the most cost-effective measure in combating the illegal felling of Incense Trees.

26. A Member opined that it was important to conserve the damaged trees, and shared that biology professors had been invited to tend to the damaged Incense Tree at the institute he worked at, while professors from the engineering faculty had been engaged in designing an alarm system for detecting illegal tree felling. He said that the felling of Incense Trees was organized and was usually conducted in a swift and skilled manner. In order to promote community-based monitoring, the Member opined that it was important to raise awareness via public education. He also suggested making reference to overseas experience in developing web-based platforms to facilitate the reporting of irregularities by the public. Dr Winnie Kwok said that AFCD had been engaging relevant concern groups in mobilizing their members and hikers to report suspected irregularities to the authorities.

27. In order to deter illegal felling of Incense Trees, a Member suggested including *Aquilaria sinensis* under the Forestry Regulation, Cap. 96A. Mr Simon Chan advised that as persons who acted in contravention of Cap. 96A would only be liable to a maximum fine of \$25,000, offenders involved in the illegal felling of Incense Trees were mainly prosecuted under the Theft Ordinance, Cap. 210, which carried a maximum penalty of imprisonment for 10 years. He said that so far the maximum penalty imposed on cases involving illegal felling of Incense Tree was 55 months imprisonment. AFCD had been collaborating with the Police to step up enforcement actions in combating the illegal felling of Incense Trees.

28. A Member enquired the feasibility of adopting the DNA barcoding technique, which although costly, could facilitate the identification of the Incense Trees concerned in court proceedings. Mr Simon Chan said that there were indeed difficulties at present in proving the origin of agarwood specimens seized. According to a research, Incense Trees in South China had very little genetic variation, and he agreed that a more sophisticated method would be

required to identify the genetic variation among Incense Trees from different regions. AFCD was considering commissioning a research study to identify a distinctive genetic marker that belonged to the population of Incense Trees in Hong Kong.

29. In reply to the Chairman's enquiry on the production rate of Incense Tree seedlings, Mr Simon Chan advised that around 10,000 seedlings were planted at country parks per year. There were however difficulties in increasing the production rate as the seeds could only be collected from mature Incense Trees, which had been exploited illegally in an extensive manner.

30. A Member shared that the institute he worked at had procured an aerial drone with hyperspectral sensor. The model which was capable of taking accurate images might be suitable for AFCD to survey and monitor Incense Trees.

31. The Chairman concluded that Members were generally supportive of AFCD's efforts on conserving Incense Trees, and stressed the importance of local propagation of Incense Trees.

Item 5 : Any Other Business

32. There was no other business for discussion at the meeting. The Chairperson informed Members that the next meeting was likely to be held in late 2016. Members would be advised on the agenda in due course.

**Nature Conservation Subcommittee Secretariat
June 2016**