

**Country and Marine Parks Board
Confirmed Minutes of the 84th Meeting**

Date : 7 May 2024 (Tuesday)

File Ref: AF CPA 01/1/0

Time : 2:30 p.m.

Venue : Room 701, Agriculture, Fisheries and Conservation Department (AFCD)
Headquarters

PRESENT

Chairman

Professor LING Kar-kan, SBS

Members Attending in Person

Miss Natalie CHUNG Sum-yue

Dr Caroline LAW Man-yee

Professor LI Xin

Mr LO Pui-lam

Dr Angie NG Ying-sim

Mr SHUM Si-ki

Mr Mickey LAI Kin-ming, JP

Acting Director, AFCD

Ms FUNG Miu-ling

Assistant Director (Leisure Services)³, Leisure and
Cultural Services Department

Members Attending via Zoom Video Conferencing

Mr CHEUNG Siu-keung, BBS, MH

Dr Apple CHUI Pui-yi

Professor Desmond HUI Cheuk-kuen

Dr Jeffrey HUNG Oi-shing

Mr Ian LEUNG Kin-wai

Professor QIU Jianwen

Mr Alex WONG Lap-kei

Mr Henry YAU Yik-chung

Mr YU Hon-kwan, MH, JP

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| Ms Vivian CHEUNG Mei-yee, JP | Assistant Director (2), Home Affairs Department |
| Mr LAI Chi-tung, JP | Assistant Director/Port Control, Marine Department |
| Miss Sapphire LO Pui-yiu | Assistant Director (Specialist 2) (Lands Administration Office/Headquarters), Lands Department |
| Ms Kathy CHAN Cheuk-ling | Senior Town Planner/New Territories District Planning Division Headquarters 1, Planning Department |
| Mr Davis WAN Chin-man | Senior Engineer/Planning Policy 1, Water Supplies Department |
| Miss Sophia ZHONG Shek-wa | Assistant Secretary for Environment & Ecology (Nature Conservation)2, Environment and Ecology Bureau |

Secretary

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| Ms Lily CHEUNG Man-lee | Assistant Secretary (Boards)1, AFCD |
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In Attendance

AFCD

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| Mr Patrick LAI Chuen-chi | Assistant Director (Fisheries and Marine Conservation) |
| Dr Jackie YIP Yin | Assistant Director (Country Parks) |
| Ms Louise LI Wai-hung | Senior Marine Parks Officer |
| Ms NGAR Yuen-ngor | Senior Country Parks Officer (Management)2 |
| Dr Samuel LAM Kin-san | Senior Country Parks Officer (Technical Services) |
| Ms Eva YAU Yee-wa | Senior Country Parks Officer (Ranger Services)2 |
| Mr CHAN Kim-hung | Senior Fisheries Officer (Special Projects) |
| Mr LEE Ying-ming | Country Parks Officer (Protection) |
| Dr Ivan CHAN Kwok-kuen | Marine Parks Officer (Development) |
| Ms Mariah Beth STEWART | Country Parks Ranger Services Officer (Hong Kong) |

For Agenda III Only

Electrical and Mechanical Services Department

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| Mr Eric CHAN Ho-leung | Senior Engineer/Municipal/Project |
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Miss Winnie MOK Wan-kam

Mr TSUI Chi-him

Engineer/Municipal/Project 2

Assistant Information Technology Manager/
Municipal/Project/1

Insight Robotics Limited

Mr Rex Sham

Co-Founder and Chief Science Officer

Absent with Apologies

Ms Vriko YU Pik-fan

OPENING REMARKS BY THE CHAIRMAN

45/24 The Chairman welcomed everyone to the meeting.

46/24 The Chairman informed Members that, as an established practice, audio recording would be made during the meeting to facilitate the taking of minutes. It would be destroyed after the confirmation of the minutes.

AGENDA ITEMS

I. Confirmation of Minutes of the 83rd Meeting held on 2 February 2024

47/24 The minutes of the 83rd meeting held on 2 February 2024 were confirmed without amendments.

II. Matters Arising

(a) Progress of Designation of Robin's Nest Country Park

48/24 Ms NGAR Yuen-ngor reported that Robin's Nest Country Park (RNCP) was officially established on 1 March 2024, becoming the 25th country park in Hong Kong. A series of work had commenced or were under preparation. The Robin's Nest Country Trail

and Lin Ma Hang Country Trail were open for use. The AFCD had installed maps, information boards, directional signs and distance posts along the hiking trails, and had set up viewing points at Hung Fa Chai where people can overlook the scenery of Starling Inlet and Wutong Mountain. The AFCD would continue to enhance various hiking facilities in future. The AFCD would conduct regular patrols to regulate illegal activities in accordance with the Country Parks and Special Areas Regulations and implement various conservation measures such as setting up firebreaks and planting native species. As for visitor services, the AFCD provided various visitor information on its website in early March, including detailed descriptions of transportation, hiking trails and attractions. Relevant information were also provided at trail entrances, including maps and waymarks. The AFCD was collating information on the unique attractions and relevant history of Robin's Nest and aimed to release the information progressively in the second half of this year. Currently, the AFCD, in collaboration with the Civil Engineering and Development Department, was revitalising the abandoned lead mine into an open museum. The lead mine was presently cordoned off for stabilizing works and was expected to be open to the public upon completion of the works by the end of this year. Besides, the AFCD had established close communication channels with the Shenzhen authority and was currently discussing with them the details of co-operation on enhancing the ecological corridor between RNCP and Wutong Mountain in Shenzhen, which was expected to be finalised within this year. The AFCD had completed the designation work of RNCP. On behalf of the AFCD, Ms NGAR sincerely thanked Members for their support and valuable input over the years.

49/24 The Chairman enquired about the use of RNCP by the public and their initial response after its opening.

50/24 Dr Jackie YIP Yin said that RNCP had received a lot of positive media coverage since its opening and the public had also given positive response to RNCP through different channels. The number of visitors increased from approximately 3 000 per month before its establishment to approximately 6 000 in March 2024 (the first month after its establishment). The number of visitors was expected to increase again during peak hiking seasons towards the end of the year. By that time, the AFCD would take corresponding measures, including continuous enhancement of hiking trails, strengthening of publicity and provision of supporting facilities.

51/24 The Chairman appreciated the efforts of the AFCD in the designation of RNCP over the past decade.

(b) Progress of Designation of North Lantau Marine Park

52/24 Ms Louise LI Wai-hung reported that the AFCD aimed to seek the approval of the Chief Executive in Council on making a designation order for the area shown in the approved map of the marine park in accordance with the Marine Parks Ordinance by June 2024. The AFCD would then gazette the designation order and introduce it into the Legislative Council for negative vetting. It was expected that North Lantau Marine Park would be designated in the fourth quarter of this year. The AFCD had started the preparation work for the management of the new park and would make timely reports at meetings of the Marine Parks Committee (MPC).

**III. The Use of Technology in Management of Country and Marine Parks
(Working Paper: WP/CMPB/5/2024)**

(Representatives of the Electrical and Mechanical Services Department (EMSD)
and Insight Robotics Limited joined the meeting at this juncture.)

53/24 The Chairman welcomed representatives of the EMSD and Insight Robotics Limited to the meeting.

54/24 Dr Samuel LAM Kin-san briefly introduced the background of the AFCD's application of technology in the management of country parks and marine parks. With PowerPoint presentations, Ms Mariah Beth STEWART, Mr LEE Ying-ming and Dr Ivan CHAN Kwok-kuen explained the details of three pilot projects.

55/24 A Member enquired whether the data collected by the automatic people counters would be made available to the academic sector for research purpose with a view to conducting analyses such as visitor distributions and activities.

56/24 Ms Mariah Beth STEWART remarked that the automatic people counters used infrared sensors to record the number of visitors and could not provide more detailed record of the statistical data about visitors such as age, gender or the activities they were engaging in.

The data collected would be used by the AFCD for internal analyses for the time being and would be released to the public on a yearly basis.

57/24 A Member enquired whether the AFCD would enhance the transport and recreational facilities of the country parks in response to the increased number of visitors, such as increasing the number of barbecue sites or increasing the transport frequencies during weekends and holidays. He also enquired about the efficacy of the automated hill fire detectors. Moreover, he said that hikers hoped the hiking mobile applications would be updated. He suggested adding educational information on biodiversity to make hiking more interesting to hikers.

58/24 A Member suggested exploring with the electric companies the possibility of onsite power supply so as to overcome the constraints of power supply in country parks. He also enquired about the discrepancy between the results of using automatic people counters and manual counting. Regarding hill fire detection, he suggested using drones to identify more accurately the location where the hill fire broke out after the automated hill fire detector had detected a hill fire. Moreover, he enquired whether artificial intelligence (AI) technology would be employed to collect ecological data for assisting in various types of academic research.

59/24 A Member enquired about the clarity of images captured by the video analytic systems (VAS) used at marine parks and whether the systems could adapt to different weather conditions and operate at night. He also enquired how the systems could identify more than one vessel on the sea and whether the photos taken by the systems would be used for enforcement purpose.

60/24 Dr Samuel LAM Kin-san responded that the through the 2nd City I&T Grand Challenge this year, AFCD tried to encourage participants to use innovative technology solutions to enhance the management of country parks, as well as provide hikers with interactive information to enhance their hiking experience. The Challenge sought to collect smart solutions to improve the management and operation of country parks and campsites. As for the use of automated hill fire detectors, it could on one hand save manpower and on the other hand improve the detection accuracy of hill fires so as to facilitate prompt deployment

of fire-fighting work. He remarked that the current reliability of hill fire detection was acceptable and would consider using drones to enhance the accuracy further in future if needed.

61/24 Regarding the VAS used at marine parks, Dr Ivan CHAN Kwok-kuen said that the systems could capture images of the activities on board and could monitor vessels entering the monitored area at night by using the thermal detection technology. The systems could collect useful information to facilitate the AFCD's patrol and enforcement arrangements. A trial run was being conducted at South Lantau Marine Park to collect information and intelligence. He said that the system could be further developed in future to assist enforcement.

62/24 Mr Rex SHAM added that the cameras of the VAS would capture images of the vessels on the sea one by one. With only a few photos, the AI technology of the systems was able to analyse the activities of the vessels.

63/24 Ms Eva YAU Yee-wa responded that the AFCD had analysed the data collected by the automatic people counters and initially found that the visitor flow and distribution varied significantly at different time slots and locations. The AFCD would properly allocate the resources for the management of country parks according to the outcomes of the analysis, such as stepping up cleansing and adding recreational facilities at popular entrances/exits and attractions. The AFCD would also share data with other government departments and improve the transportation support as needed. Regarding the accuracy of the automatic people counters, the results of the trial runs showed that the overall accuracy was close to 100%. Comparing the results of the automatic people counters and manual counting, the discrepancy in 2023 was 70%, reflecting that manual counting had its constraints and the number of visitors might have all along been underestimated. The automatic people counters were more reliable and accurate and could provide more data about the visitor flow and distribution.

64/24 A member enquired how many automatic people counters were planned to be installed throughout the territory. He also enquired whether automatic and manual people counting were conducted concurrently at present.

65/24 A member enquired whether the VAS used at marine parks could clearly capture the vessel licence numbers to facilitate prosecution. Moreover, she suggested using the systems to monitor the Chinese white dolphins population.

66/24 A member enquired about the area in country parks that could be covered by the automated hill fire detection system following full implementation of the system. Regarding the law enforcement actions against illegal fishing, she asked whether there was normally a certain distance between the berthing location of the AFCD's enforcement vessels and the site of illegal fishing.

67/24 A member opined that some ecologically sensitive areas were packed with visitors. She suggested that the AFCD could consider making available real-time visitor statistics for those popular scenic spots, so as to facilitate the public in planning their itineraries and divert the flow of people. She concurred with a Member's suggestion and opined that innovative technology should be applied for educational purpose, such as introducing the ecosystems in country parks.

68/24 A member enquired how the automatic people counters would handle repeated counting of multiple entries and exits of visitors. In addition, he suggested introducing automatic people counters at campsites to facilitate campsite management by the AFCD. Besides, regarding the VAS of marine parks, he suggested testing the systems for law enforcement against illegal fishing activities at sea.

69/24 Dr Samuel LAM Kin-san responded that the automated hill fire detection system would be installed at 11 strategically located fire lookouts, covering the majority of important habitats and woodlands. He expressed support for using technology to educate visitors and enrich their experience of visiting the countryside.

70/24 Ms Eva YAU Yee-wa said that the AFCD had planned to install the automatic people counters at country parks in the central New Territories and on Hong Kong Island by the end of this year and gradually expand to other country parks. By that time, around 100 automatic people counters would be installed across Hong Kong. Within the first year after installation of the automatic people counters, automatic and manual people counting would be conducted concurrently to ensure the accuracy of the data.

71/24 The Chairman asked how the automatic people counters would solve the problem of repeated counting of multiple entries and exits of visitors.

72/24 Ms Eva YAU Yee-wa explained that the automatic people counters would be installed at the entrances and exits of country parks. The AFCD would only count the number of people entering the country parks, thus visitors would not be repeatedly counted. In the light of the power supply constraints in country parks, the AFCD was exploring with the service provider the feasibility of disseminating real-time visitor statistics of popular scenic spots. As regards counting number of campsite users, considering campers were in and out of the campsite more frequently and the automatic people counters would count them repeatedly, such counters might not be suitable for use at campsites. The AFCD would continue to explore other technologies, such as AI, for assisting in the management of campsites.

73/24 Dr Jackie YIP-yin remarked that with the advancement of technology, the management of country parks had become increasingly refined. Having undergone years of testing and improvement, the automatic people counters were able to give accurate and reliable data. The AFCD would collect more data with a view to analysing more accurately the visitor flow, visitor behaviour and frequency of their activities, etc. In the long run, the AFCD would further explore the possibility of collaborating with the academic community to study the relevant data in detail.

74/24 Mr CHAN Kim-hung responded that marine enforcement actions would target waters where illegal fishing was more likely to take place and focus the resources on combating illegal activities. Currently, enforcement operations were mainly arranged based on daily patrols and intelligence collected from other channels. Once suspicious illegal activities were detected by the VAS, the AFCD, in collaboration with the marine police, might take enforcement actions based on the information collected. As for whether the information kept in the systems could be admitted as evidence in court, the Sea Enforcement Team of the AFCD would further study the matter.

75/24 Dr Ivan CHAN Kwok-kuen replied that theoretically speaking, the VAS could be developed for monitoring dolphins but it would involve developing and training another AI system. That issue would be explored again if resources so permitted in future.

76/24 Mr Rex Sham added that the existing system had a monitoring range of approximately 1 kilometre. Theoretically, it could detect dolphins leaping out of the water

with the infrared thermal imaging camera, but it would take time and resources to develop another AI system specifically for identifying dolphins.

77/24 Mr Patrick LAI Chuen-chi said that the AFCD had been using acoustics technology to monitor the occurrence and activities of dolphins. Besides, the automatic identification system could track the activities, speeds and navigation routes of vessels in all Hong Kong waters. The AFCD would analyse suspicious illegal activities through different new technology and the use of AI to analyse illegal activities with a view to enhancing the effectiveness of its enforcement actions.

(Representatives of the EMSD and Insight Robotics Limited
left the meeting at 3:50 p.m.)

78/24 The Chairman commented that the automated hill fire detectors and the VAS had extensive coverages but the two existing control rooms were too small in scale. He suggested expanding the control rooms. Besides, he suggested that the AFCD should continue exploring the possibility of submitting the information kept in the VAS as evidence in court so as to facilitate law enforcement.

IV. Summary Report of the Country Parks Committee (Working Paper: WP/CMPB/6/2024)

79/24 Mr LO Pui-lam, Chairman of the Country Parks Committee (CPC), briefed Members on Working Paper WP/CMPB/6/2024, which provided a summary of the issues discussed at the CPC meeting held on 26 March 2024. Members noted the report.

V. Summary Report of the Marine Parks Committee (Working Paper: WP/CMPB/7/2024)

80/24 Professor QIU Jianwen, Chairman of the Marine Parks Committee (MPC), briefed Members on Working Paper WP/CMPB/7/2024, which provided a summary of the issues discussed at the MPC meeting held on 9 April 2024. Members noted the report.

**VI. Country and Marine Parks Authority Progress Report
(Working Paper: WP/CMPB/8/2024)**

81/24 Dr Jackie YIP Yin presented the Country and Marine Parks Authority Progress Report for the period from 1 January to 31 March 2024 (Working Paper: WP/CMPB/8/2024).

82/24 The Chairman asked whether there had been any improvements in the situation of illegal activities in country parks.

83/24 Ms Eva YAU Yee-wa stated that there was a total of 323 enforcement cases between January and March 2024. Most of the cases involved illegal entry by bicycles/vehicles into country parks, illegal camping and illegal lighting of fire. Overall speaking, after the pandemic, the number of illegal activities had slightly decreased as compared with the same period in the previous year.

VII. Any Other Business

84/24 There was no other business to discuss.

VIII. Date of Next Meeting

85/24 The Chairman informed Members that the next meeting was tentatively scheduled for 10 September 2024 (Tuesday) at 2:30 p.m.

(Post meeting note: The next meeting was rescheduled to 30 September 2024 (Monday) at 2:30 p.m.)

86/24 The meeting adjourned at 4:10 p.m.

- End -