

**Minutes of the Fifth Meeting of the
Environment and Conservation Fund Committee
held on 17 December 2015 at 9:30 a.m.**

Present

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| Dr Joseph LEE, GBS, JP | (Chairman) |
| Ir Dr CHAN Fuk-cheung | |
| Ir CHAN Wing-hong, Cary | |
| Ms FUNG Dun-mi, Amy, MH | |
| Mr LAM Chiu-ying, SBS | |
| Mr Douglas WOO | |
| Mr TSE Chin-wan, JP | DDEP(1), EPD |
| Dr CHAN Ying-lung, Ellen | CRM, EPD |
| Mr NG Ka-shing, Joe | Principal Education Officer, EDB |
| Mr CHAN Ping-Kwong, Richard | Senior Conservation Officer, AFCD |

In Attendance

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|-----------------------------|---------------------------|
| Ms Anita SW TSUI | CEO(CR)1, EPD (Secretary) |
| Mr TSOI Kwan-sang, Steve | SEO(CR)1, EPD |
| Miss LEUNG Ngar-yan, Phoebe | AS(CR)4, EPD |
| Mr KAM Ka-lung, Simon | EM(CR), EPD |

Absent with Apologies

Ms CHAN Sui-kuen, Agnes
Dr KaChun HUI
Ms LI Chun-chau

In Attendance for Item 3

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| Mr WONG Hon-meng | AD(WR), EPD |
| Mr YUEN Po-hung | S(WR)1, EPD |

In Attendance for Item 4

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| Mr AU Wai-kwong, Elvis, JP | AD(CI), EPD |
| Ms CHAN Sin-wai, Aidia | FO(NC), EPD |
| Dr YIP Yin, Jackie | Senior Conservation Officer (Biodiversity), AFCD |
| Mr WONG Kwong-chiu, Alfred | Senior Country Park Officer (Ranger Services), AFCD |

In Attendance for Item 4(i)

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|-------------------|---|
| Dr YAU Wing-kwong | Chief Executive Officer of Environmental Association Limited (EAL) |
| Ms Colleen CHIU | Project Manager (Nature Conservation) of EAL |
| Mr Nelson SO | Assistant Project Manager (Nature Conservation) of EAL |

In Attendance for Item 4(ii)

Ms Angie CHAN

Deputy Chief Executive Officer of Sai Kung District Community Centre (SKDCC)
Business Director, SE of SKDCC
Executive Councillor of Heung Yee Kuk

Mr William CHAN

Mr MO Ka-hung, Joseph

In Attendance for Item 5(i)

Professor Chak K CHAN

Professor of Division of Environment and Department of Chemical and Biomolecular, The Hong Kong University of Science and Technology

In Attendance for Item 5(ii)

Dr WANG Zhe

Research Assistant Professor of Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University



Opening Remarks

The Chairman welcomed all Members to the fifth meeting of the Environment and Conservation Fund (ECF) Committee.

Agenda Item 1: Confirmation of Minutes of the Meeting held on 1.9.2015

2. The draft minutes of the previous meeting held on 1 September 2015 were circulated to Members on 22 October 2015. The meeting confirmed the draft minutes without amendment.

Agenda Item 2: Matters Arising

Para. 3 Financial Position of ECF

3. Ms Anita SW TSUI reported that as at 31 October 2015, ECF's balance in bank was \$812.22 million. In addition, ECF had a seed money of \$4,700 million and investment return totalling \$271.26 million for 2013 and 2014 kept at the Hong Kong Monetary Authority (HKMA). Taking into account the amount of \$914.04 million already committed, ECF had an overall uncommitted balance of \$4,869.44 million by end of October 2015.

Update on the Review of the Performance of ECF

4. Ms Anita SW TSUI reported that the Task Force formed to oversee and implement the Review on ECF's Performance met on 22 September 2015 to

assess the applications received, and approved in-principle a project proposal submitted by the University of Hong Kong (HKU), subject to HKU's revision of the proposal to take into account the Task Force's various suggestions for enhancement. The Secretariat had since followed up the Task Force's suggestions with HKU. The revised proposal, when ready, would be submitted to the Task Force for consideration and formal endorsement.

Provision of Additional Funding for Environmental Research, Technology Demonstration and Conference projects

5. Ms Anita SW TSUI reported that the ECF Committee had previously allocated \$20 million for the Environmental Research, Technology Demonstration and Conference (RTDC) projects funding scheme for 2015-16. The Research Projects Vetting Subcommittee (RPVSC) invited applications in March 2015, in response to which a total of 89 funding applications were received. After a series of meetings held in August, November and December 2015 to assess these applications, RPVSC approved two conference projects and considered that 32 applications for research and / or technology demonstration projects were worth supporting. The total funding sought for these 34 applications amounted to around \$25.77 million, i.e. a shortfall of \$5.77 million over the allocation of \$20 million. Considering the merits of these applications and the contributions that they might bring to environmental protection and nature conservation, RPVSC finally decided to request the Secretariat to put forth its proposal for additional allocation of \$5.77 million for 2015-16 to the ECF Committee for consideration.

6. A Member opined that a reasonable mechanism in budget allocation was important to ensure the sustainable operation of the ECF. He enquired whether the interest generated from ECF's seed money was sufficient to meet the annual budget requirements. Dr Ellen CHAN said that the ECF's approved budget for 2015-16 was \$200 million, of which \$20 million was allocated for RTDC projects, whereas the interest generated in 2015 was around \$273 million. Hence, the interest income was able to cover the additional funding request at \$5.77 million for RTDC projects.

7. In response to the enquiries of two Members, Dr Ellen CHAN said that in case other ECF funding schemes had requirements for additional allocation, the ECF Committee's endorsement would be sought separately. Dr CHAN further said that the exact ECF expenditure position for 2015-16 could not be confirmed at this stage as the vetting process of some funding schemes was not yet completed. Mr CW TSE added that since the funding invitation in 2015-16 had attracted a larger number of worthwhile research projects, it was reasonable for the ECF to consider additional allocation for the RTDC funding scheme to meet funding requirements. No request for additional funding allocation from other funding schemes had been received so far, and in fact some funding schemes might even expect to have unused funding at the end of the year. In working out the annual ECF budget proposal for 2016-17, the ECF might consider suitably adjusting upwards the allocation for RTDC projects. Another Member expressed his support to RPVSC's request for additional allocation of \$5.77 million for 2015-16.

8. After deliberation, the Chairman concluded the meeting's views that RPVSC's request for additional allocation of \$5.77 million for 2015-16 should be approved.

Agenda Item 3: Funding Support for Non-governmental Organizations to Operate the Plastic Resources Recycling Centre at EcoPark in Tuen Mun (ECF Paper 20/2015-16)

9. Mr WONG Hon-meng briefed Members about the arrangements proposed by the Environmental Protection Department (EPD) to continue the operation of the Plastic Resources Recycling Centre (PRRC) at EcoPark in Tuen Mun for two years by engaging a non-government organization (NGO) as an operator to be selected through an open invitation exercise.

10. Mr WONG Hon-meng said that the PRRC was set up by the Government after the financial crisis in 2008 when the local recycling industry faced gloomy prospects and was not keen on recovering waste plastics. Actions were therefore needed to avoid the plastic wastes being dumped at landfills and to support the local recycling industry. The main objectives of the PRRC were to foster community participation in source separation and waste recovery, offer plastic recycling training opportunities, provide a secure and environmentally sound outlet for local source plastic wastes and facilitate processing of plastic wastes into value-added materials for recycling. Through open invitation, Yan Oi Tong (YOT) had been the operator since March 2010 under two consecutive ECF funding grants. Leveraging on YOT's network and experience, YOT had been able to reach out to the public effectively. As in November 2015, the PRRC had organized over 5,000 educational, promotional and publicity activities to promote recycling of waste plastics and received 40,000 visitors. YOT also expanded the collection points to over 1,000 and engaged more than 900 partners from different community sectors. The accumulated quantity of waste plastics processed exceeded 8,000 tonnes over the years and the recovery rate maintained at a high level of over 75%. While YOT's good reputation in operating the PRRC attracted donations and sponsors, deficits were recorded by YOT in the past years.

11. Mr WONG Hon-meng informed the meeting that a number of major waste management policy initiatives were being or would soon be implemented to promote waste recovery and enhance the sustainability of the recycling industry, including the Clean Recycling Campaign, the proposed Municipal Solid Waste charging scheme and the Recycling Fund which was formally launched for application in October 2015. As these initiatives would facilitate private recyclers to develop interest and capacity to collect and process waste plastics, EPD proposed to continue the PRRC operation for two more years sustaining the momentum of promotion and allowing flexibility for timely review on the policy effects. Reducing the project duration down to two years would also enable the future PRRC operator more room to manage operation risk. In line with the ECF funding guidelines, the ceiling of funding support for any project was \$10 million. To provide the future PRRC operator greater flexibility in meeting market situations

and different types of waste plastics, it was also proposed to change the minimum percentage of recovery from 75% to 60% while the average daily throughput would be slightly increased.

12. Mr WONG Hon-meng informed the meeting that the proposal was discussed at the Waste Reduction Projects Vetting Subcommittee (WRPVSC) meeting held on 17 September 2015 during which members generally supported the proposal. To address some members' concern, EPD had reviewed the originally proposed target throughput requirements and further proposed to set a minimum daily recovery amount of no less than 4.5 tonnes. For the way forward, subject to the endorsement of the ECF Committee, EPD would seek assistance of the ECF Secretariat to invite NGOs to submit applications for funding support to manage and operate the PRRC after the expiry of the current project on 2 March 2016. EPD would assess the submissions received and put up recommendations to WRPVSC members for discussion at its meeting to be held on 27 January 2016 tentatively. EPD's recommendation, if supported by the WRPVSC, would be circulated to the ECF Committee Members for approval.

13. Note

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23. After deliberation, the Chairman concluded the meeting's view that EPD's proposed way forward for the PRRC should be endorsed and that EPD's recommendations on the submissions, after obtaining WRPVSC's support in January 2016, would be circulated to Members for consideration and endorsement.

Agenda Item 4 Applications under Nature Conservation Management Agreement Scheme (ECF Paper 21/2015-16)

24. Dr Jackie YIP briefed Members that the invitation for Management Agreement (MA) applications for 2015 was open from 9 September to 20 October 2015. The following two applications were received by the deadline –

- (i) Project I: Management Agreement on the Private Land with High Conservation Value at Fung Yuen Valley Site of Special Scientific Interest in Tai Po, Hong Kong (2016-2019) submitted by the Environmental Association Limited (EAL)
- (ii) Project II: Rehabilitation Project for Sai Wan Area submitted by the Sai Kung District Community Centre (SKDCC)

The Assessment Panel, which consisted of members from the Agriculture, Fisheries and Conservation Department (AFCD) and EPD held two meetings on 17 and 26 November 2015 to assess the two applications respectively. The merits of individual applications were evaluated in accordance with the marking scheme endorsed by the Nature Conservation Subcommittee of the Advisory Council on the Environment (NCSC) in October 2014. NCSC was subsequently consulted on the two applications on 10 December 2015.

- (i) Project I: Management Agreement on the Private Land with High Conservation Value at Fung Yuen Valley Site of Special Scientific Interest in Tai Po, Hong Kong (2016-2019)

25. Note

26. Note

27. Representatives of EAL were invited to join the meeting to answer Members' questions at this juncture. Ms Colleen CHIU conducted a brief presentation of the application to Members.

28. Note

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30. Note

31. Representatives of EAL were discharged from the meeting at this juncture.

32. Dr Jackie YIP advised that as the applications were made on a competition-basis, the deliberations on whether Project I should be supported would

be made together with Project II in one go after the presentation of SKDCC on its proposal.

(ii) Project II: Rehabilitation Project for Sai Wan Area

33. For Project II, Mr Alfred WONG briefed the meeting that the Sai Wan enclave was designated as part of the Sai Kung East Country in December 2013 with a view to improving the management of the area, enhancing the overall conservation and landscape value of the area, and increasing its enjoyment and amenity. During the consultation for country park designation, there had already been discussion on seeking funding support from the ECF for implementation of an MA project in Sai Wan area in order to effectively manage the private land and help villagers maintain a living while conserving the historic, cultural and ecological values of Sai Wan. The Working Group on Sai Wan Management formed under the Country Parks Committee of the Country and Marine Parks Board also acknowledged the merit of cooperation between the landowners and NGOs to implement a conservation project and had taken forward the idea of the MA scheme to promote eco-tourism at Sai Wan through local engagement.

34. Note

The Assessment Panel hence made revisions to the proposed budget (Annex VIII of ECF Paper 21/2015-16 was relevant) without compromising the major elements of the project and the recommended budget for approval was \$9,877,730.

35. Note

36. Note

37. Representatives of SKDCC and HYK were invited to join the meeting to answer Members' questions at this juncture. Ms Angie CHAN and Mr William CHAN conducted brief presentations of the history and organization of SKDCC, and the application to Members.

38. Note

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43. Representatives of SKDCC and HYK were discharged from the meeting at this juncture.

44. Note

45. After deliberation, the Chairman concluded the meeting's views on the two applications as follows –

- (i) Project I should be approved at the budget at \$8,927,955.61 with the approval conditions imposed by the Assessment Panel and NCSC; and
- (ii) Project II should be approved at the budget at \$9,367,730 with the approval conditions imposed by the Assessment Panel and NCSC.

In view of the conditions imposed by the Assessment Panel and NCSC under the ACE, EAL and SKDCC would be required to take follow-up actions accordingly.

(Post-meeting notes:

There was a miscalculation on the approved budget for Project I, i.e. Management Agreement on the Private Land with High Conservation Value at Fung Yuen Valley Site of Special Scientific Interest in Tai Po, Hong Kong (2016 – 2019). The approved budget should be \$8,920,455.71 instead of \$8,927,955.61 as suggested in the ECP Paper 21/2015-16.

There was a miscalculation on the approved budget for Project II, i.e. Rehabilitation Project for Sai Wan Area. The recommended budget should be \$9,967,730 instead of \$9,877,730 as suggested in the ECF Paper 21/2015-16. Taking into account the amendment to the recommended budget, the approved budget should be \$9,457,730 instead of \$9,367,730.)

Agenda Item 5 Presentation of Research Projects Completion

- (i) ECF 04/2009 – Air quality in Hong Kong: A supersite programme for real-time characterization of Particulate Matter on Hong Kong's air
(ECF Paper 23/2015-16)
- (ii) ECF 07/2009 – Study of photochemical air pollution in Hong Kong
(ECF Paper 24/2015-16)

46. Ms Anita SW TSUI informed the meeting that two research projects on air quality, viz., ECF 04/2009 and ECF 07/2009 had been completed recently. Representatives of the two project teams had been invited to attend the meeting to brief Members about their results and findings.

47. Ms Anita SW TSUI briefed Members that the project ECF 04/2009 was carried out by the Hong Kong University of Science and Technology (HKUST) with a budget of \$6,609,000 approved by the ECF Committee in March 2010. The Principal Investigator (PI) was Prof Chak K CHAN. The project completion was considered by RPVSC at its meeting held on 30 September 2015. RPVSC considered that the findings and achievements of the project were very impressive and fully appreciated the efforts of the project team in taking forth the project Ms

TSUI further said that the project ECF 07/2009 was carried out by the Hong Kong Polytechnic University (PolyU) with a budget of \$6,554,936 approved by the ECF Committee in March 2010. The PI was Prof WANG Tao. The project completion was also examined by RPVSC at its meeting held on 30 September 2015. RPVSC, after examining the two projects' results and achievements, decided to recommend their project completion to the ECF Committee for consideration.

48. Prof Chak K CHAN of HKUST and Dr WANG Zhe of the project team of PolyU were invited to join the meeting at this juncture for the presentation.

49. Prof Chak K CHAN briefed Members that the project aimed to develop a partnership programme between academic institutions and the Government to conduct intensive air quality research with state-of-the-art instruments to characterize the physical and chemical properties of particulate pollutants. The outcomes of the project would create a research-based foundation on which to build air quality improvement programmes. Prof CHAN reported the major scientific findings of this project as follows -

- (a) HKUST was an ideal site for investigating regional air pollution, based on long term detailed filter-based and real time aerosol characterization. Overwhelming majority (>75%) of the particulate matter observed at this site were secondary in nature. They were likely transported from outside Hong Kong;
- (b) Nitrate, much less emphasized than sulfate in the past, could be more abundant than sulfate and could account for up to 20% of PM_{2.5} during nitrate episodes, especially in winter;
- (c) Cooking emissions contributed more to organic aerosol in Mong Kok than traffic emissions did. This conclusion was supported by the clear diurnal profiles of cooking organic aerosol, which showed aerosol mass spectrometer (AMS) peaks even stronger than those of hydrocarbon-like organic aerosol from traffic at meal times. However, this was the first time in Hong Kong that HR (high resolution)-AMS measurements were made and these measurements were made only at one site for four months;
- (d) The inclusion of representative size distribution of aerosols, volatility basis set of organic aerosols and the aqueous phase NO₂ oxidation of SO₂ had significantly improved the model predictions of PM_{2.5} and its compositions to the level that it could be used for forecasting purposes;
- (e) Remote sensing techniques had matured and provided reliable surface PM data via aerosol optical depth measurements; and
- (f) The PolyU Roadside PM was influenced by different sources during the four seasons.

Prof Chak K CHAN told the meeting that the project findings had been reported in detail in 20 peer-reviewed journal articles, and had received elaborate media coverage.

50. Dr WANG Zhe briefed the meeting that the main purpose of the project ECF 07/2009 was to advance the knowledge of atmospheric science, provide scientific support to the governments of Hong Kong and Guangdong in mitigating photochemical smog, and develop research tools and human resources for long-term management of air quality in the region. Dr WANG reported the major scientific findings of this project as follows -

- (a) The ambient concentrations of NO_x and CO had been decreasing at most of the stations in Hong Kong. Meanwhile, the O₃ concentrations had still shown an increasing trend in most areas in Hong Kong-Pearl River Delta region (PRD). The local ozone production in Hong Kong had been reduced through the strict VOC control by the Government. However, the background ozone levels had increased more significantly, which were mainly attributed to the regional transport from the PRD and eastern China. This regional impact had negated the local control efforts of Hong Kong; and
- (b) The heterogeneous chemistry of nitrous acid (HONO) was found to be a dominant radical source at Tung Chung (TC), not only in the morning but also throughout the daytime. Some new insights about direct emission and heterogeneous production of HONO on aerosol and ground surfaces were obtained. 'Missing' daytime source of HONO was found at TC, and further analysis revealed the possible contribution by aerosol surface. The emission factors of HONO were derived from the field measurement. The research results also suggested the important role of sea surface in the heterogeneous HONO formation and hence atmospheric photochemistry in the coastal areas like Hong Kong. These results had improved model simulations of ozone pollution in Hong Kong.

51. A Member enquired whether the application of electrical cooking stoves would help decrease cooking emissions. Prof Chak K CHAN responded that the emissions mainly came from heating of the substances being cooked. The methods of cooking would only have slight effect on the amount of cooking emissions.

52. The Chairman enquired about the follow-up actions that might be considered by the Government in the light of the findings of ECF 4/2009, viz., that cooking fumes had contributed more to PM_{2.5} than road traffic emissions. Prof Chak K CHAN said that there might be a need to introduce legislative measures to strengthen the reduction of cooking fume emissions. Mr CW TSE advised that the project would help EPD to better understand the problems and the need for new measures. Oil fume control devices had already been installed by many restaurants and EPD would examine the study findings and consider further need for and the availability of appropriate solutions before deciding on the way forward.

53. The Chairman opined that as revealed by the study of ECF 9/2009, ambient ozone levels had been increasing in Hong Kong in the past two decades, such that cross-boundary cooperation with the Guangdong government was needed to control air pollution. A Member said that while the two projects were scientifically technical in nature, their findings were also very useful for education purpose in raising the community's awareness to problems of air pollution.

54. The Chairman thanked Prof Chak K CHAN and Dr WANG Zhe for the presentations. Both Prof CHAN and Dr WANG left the meeting at this juncture.

55. After deliberation, the Chairman concluded the meeting's views that the completion of the two projects, viz., ECF 04/2009 and ECF 07/2009, should be endorsed.

Agenda Item 6: Any Other Business

56. Members had no other business to raise.

Agenda Item 7: Date of Next Meeting

57. The next Meeting would be held in February 2016. The Secretariat would inform Members about the details in due course.

58. The meeting ended at 12:20 p.m.

**Secretariat, Environment and Conservation Fund Committee
January 2016**

Note: The paragraph will not be included in the version of notes to be uploaded to the webpage of ECF according to the standing practice of not disclosing the detailed reasons for supporting or rejecting an application. The ECF webpage contains a general disclaimer that "Reasons for supporting/rejecting an application had been made known to the project proponents concerned, and the public could ask the project proponents direct for such information."