

**Minutes of the Fifth Meeting of the Environment and
Conservation Fund Research Projects Vetting Subcommittee
held on 9 December 2013 at 2:00 p.m.
in Room 502, 5/F., Southorn Centre, Wanchai**

Present

Mr Kenneth CHAN	(Chairman)
Miss Jane HUI	
Mr Luther LT WONG	
Mr LAM Chiu-ying	
Prof Kenneth MY LEUNG	
Dr SHUM Ho-cheung, Anderson	
Dr Daniel TSANG	
Mr Conrad PK LAM	Environment Bureau
Dr YIP Yin	Agriculture, Fisheries & Conservation Department
Mr Patrick LIU	Environmental Protection Department (EPD)
Ms Anita SW TSUI	Secretary (EPD)
Ms Sharon TSAI	Assistant Secretary (EPD)

Absent with Apologies

Prof Irene LO
Dr Arthur PS LAU
Mr Barry MC KWONG
Mr Victor KWONG
Mr Victor C LI

Welcoming Remarks

The Chairman welcomed all Members attending the meeting of the Environment and Conservation Fund (ECF) Research Projects Vetting Subcommittee (RPVSC).

Agenda Item 1: Confirmation of Minutes of the Previous Meeting

2. Draft minutes of the previous meeting were circulated on 10 October 2013. Suggested amendments received from Members were

subsequently incorporated and the amended minutes were further circulated on 18 October 2013. Further comments were received. The further amended minutes were tabled and confirmed by Members.

Agenda Item 2: Matters Arising from Minutes of the Previous Meetings

(a). Woo Wheelock Green Fund

3. Ms Sharon TSAI said that at the previous meeting, Members requested the Secretariat to explore with Woo Wheelock Green Fund (WWGF) on whether the latter would consider supporting more projects approved by the ECF, so that more worthy projects could benefit from WWGF's and ECF's funding each year. Ms Sharon TSAI reported that the Secretariat had since followed up with WWGF over the suggestion. WWGF noted Members' views and indicated that it would maintain its existing mechanism in selecting suitable applications for support.

(b). Project 33/2010 Integrated warning system for monitoring and prediction of dust storm events in Hong Kong [RPVSC Paper 21/2013-2014]

4. Ms Sharon TSAI said that Members' views were previously sought on the requested budget reallocation and project extension for ECF Project 33/2010 set out in RPVSC paper 10/2013-14 circulated on 5 July 2013. As Members had expressed different views on the variation requests, and since a decision on the requests would have implications on the way forward for the project, the case was brought up at the RPVSC meeting on 31 July 2013 for further discussion.

5. Note

6. Note

7. Note

8. Note

9. Note

10. Note

11. The Chairman concluded Members' views that the project should be

terminated. The meeting also requested the PI to submit a certified financial statement covering the project period from 1 February 2011 to 31 July 2013 according to the ECF's funding rules, for consideration of her budget reallocation requests before finalizing the project account. The management of the recipient organization would be informed of the decision.

Agenda Item 3: Review and Updates of the Priority Research Theme
[RPVSC Paper 44/2013-2014]

12. Ms Sharon TSAI briefed Members about RPVSC Paper 44/2013-14. She said that since April 2010, the Environmental Research, Technology Demonstration and Conference Projects (RTDC Projects) funding scheme had used to adopt priority research themes which were reviewed and updated at intervals of two years, so as to focus resources to build knowledge and talents on areas of priority. The priority themes aimed to be indicative of research themes the merits of which had been affirmed by RPVSC, drawing reference from Government policy priorities. Hence, in reviewing the priority themes, RPVSC used to make reference to the suggestions of the Environment Bureau (ENB) and EPD. As the current set of priority themes had been adopted for nearly two years, the RPVSC Secretariat had recently consulted policy divisions within EPD and ENB on proposed updates, so as to facilitate RPVSC in considering priority themes which would stay in line with policy priorities. Their suggestions were set out in the Annex to RPVSC Paper 44/2013-14. Subject to Members' views and decision, the Secretariat would arrange to promulgate the updated set of priority themes through the ECF website and notifications to key stakeholders.

13. Ms Sharon TSAI reported that Mr LAM Chiu-ying, who was also a Member of the ECF Committee, had previously suggested to the ECF Committee for inclusion of local biodiversity surveys and related studies into the list of RTDC priority research themes. His suggestions were subsequently referred by the ECF Committee to RPVSC for consideration. Further, in response to Mr LAM Chiu-ying's request, his views were also conveyed to EPD and ENB for reference in reviewing the priority themes. Mr LAM Chiu-ying supplemented that the Convention on Biological Diversity was extended to Hong Kong in 2011, and understood that the Government was currently working on a Biodiversity Strategy and Action Plan (BSAP) as part of its

obligations to the Convention. Mr LAM Chiu-ying considered that the participation by non-government organizations (NGOs) in monitoring the diversity of species in different districts with ECF funding support could help gather useful information and data for future reference and for compliance with the Convention.

14. Dr YIP Yin told the meeting that the ENB and AFCD have embarked on the preparation of the BSAP for Hong Kong, which would involve the review of the conservation of the local biodiversity and the formulation of tasks that should be taken by Hong Kong in fulfilling its obligations under the Convention. The BSAP Steering Committee would review the status and trends of biodiversity, threats and opportunities, and identify knowledge gaps. It is anticipated that the BSAP, to be finalized by 2015, would provide further information on research needs in biodiversity. Mr LAM Chiu-ying indicated that pending the BSAP team's completion of its review, the ECF should motivate enthusiastic NGOs to conduct studies on this aspect. He opined that the proposed ecological monitoring studies in item (c) of the priority themes should include site-specific monitoring. Dr YIP Yin said that site-specific monitoring would be covered under ecological monitoring studies. However, whether individual projects on the subject would be given ECF support would depend on the merits and expected contributions of each application to the overall environment of Hong Kong.

15. Replying to Dr YIP Yin, Ms Sharon TSAI said that the finalized list of research themes in full, including the potential research topics listed for illustrative purposes, would be posted on the ECF website and included in the Guide to Application for the RTDC Projects funding scheme. Dr Anderson SHUM noted the recurrence of "air quality" in item (d) of the proposed list, and asked whether the emphasis was on the relationship between air quality on the one hand, and other stated factors such as public health, economic studies, and transportation on the other. Mr Conrad LAM opined that it should refer to the inter-relationship between these factors and air quality, but suggested the Secretariat seeking confirmation from ENB and EPD.

16. Mr Luther WONG considered that apart from food waste recycling, recycling of other types of waste such as electronic waste might also be included in the priority themes. Ms Jane HUI observed that the examples quoted in the proposed list should be for illustrative purposes only, and opined

that studies on recycling of wastes other than food waste should also be covered under the priority themes, although these were not specified. The Chairman shared Ms HUI's views, adding that food waste recycling was specifically the Government's policy priority.

17. After deliberation, the meeting concluded that the way the potential research topics were presented in the list could be made more consistent and specific, in a way as to demonstrate that these were included for illustrative purposes only. In addition, Members would like to ascertain from ENB and EPD as to whether it was their intention, by way of including an example under item (b), to encourage studies on how Government support for waste recycling would be effective and successful. The Secretariat was requested to convey their views and comments above and as incorporated in the modified list of priority research themes at Annex to ENB and EPD for confirmation, before endorsing the updated research priority themes.

Agenda Item 4: New Applications

18. Ms Sharon TSAI said that at the previous meeting on 27 September 2013, Members agreed that the processing and assessment of the 44 applications already received by 4 September should be completed within the 2013-14 financial year, and that the budget of \$14 million allocated by the ECF Committee for RTDC projects in 2013-14 should be reserved solely for use of these applications. Any remaining budget would be returned to the ECF for reallocation next year. Ms TSAI referred to the note summarizing the processing status of these 44 applications tabled at the meeting, and reported that out of these, one application (viz., ECF 10/2013 "The 4th international workshop on regional air quality management in rapidly developing economic regions") had been withdrawn. Initial review by departments and External Assessors (EAs) on 21 applications was completed, such that these applications would be ready for Members' assessment. Ms TSAI told Members that according to the established practice, applications were processed according to the sequence when they were received, i.e. on a first-come-first served basis. These applications were also submitted to RPVSC for consideration in the same sequence, except for one application which was not yet ready for assessment for reason that the review by the EA was still on-going (viz., ECF 28/2012 "Cooling load characteristics and applying task/ambient air conditioning for vehicles during waiting with a switched-off idling engine"). Apart from the 21 applications, Members might also wish to consider whether one other conference project (viz., ECF 13/2013 "City Carbon Portal Conference 2 - Policy and technology integration") should be assessed "out of sequence" at the

present meeting, in view of the impending date of the conference (i.e. 14 January 2014).

19. In view of the limited budget allocated to RPVSC, Prof Kenneth LEUNG suggested that Members might consider screening out projects not worthy for support in the first instance, and assess whether the funding available would be sufficient to meet the requirements of all supported projects. Mr LAM Chiu-ying suggested that the meeting could rate each application according to their merits having regard to the assessment criteria, so that Members could select projects for support based on the rating assigned. The meeting agreed with the suggestions of Prof Kenneth LEUNG and Mr LAM Chiu-ying for handling the 43 applications.

Item 4(a) - ECF Project 03/2012 Plug-in hybrid air-conditioning system [RPVSC Paper 22/2013-14]

20. Ms Sharon TSAI briefed Members about the proposal by the North West Area Taxi Drivers and Operators Association seeking funding support at \$500,000 for a 12-month project which aimed to demonstrate a new technology to provide air-conditioning when a vehicle's engine was idling.

21. Note

22. Note

23. Note

24. After deliberation, the Chairman concluded that the PI should be invited to demonstrate the merits of the proposed project through providing a comparison of the technology proposed under the project and that developed under the two completed ECF-supported projects of ECF 17/2008 and ECF 26/2010 for Members' further consideration.

Item 4(b) - ECF Project 07/2012 Development of novel material from e-Waste for the removal of toxic heavy metal ions from wastewater [RPVSC Paper 25/2013-14]

25. Ms Sharon TSAI briefed Members about the proposal by the Hong Kong University of Science and Technology (HKUST) seeking funding support at \$498,800 for a 12-month project which aimed to make use of low value non-metallic e-waste material to develop high-capacity ion exchange materials for the removal of toxic heavy metals from wastewater streams.

26. Note

27. Note

28. Note

29. The meeting decided that the application should be rejected.

30. Prof Kenneth LEUNG declared interest for items (c) and (d) concerning applications from the State Key Laboratory in Marine Pollution and withdrew from the meeting.

Item 4(c) - ECF Project 12/2012 Ecology and biodiversity of benthic

dinoflagellates in Hong Kong [RPVSC Paper 26/2013-14]

31. Ms Sharon TSAI briefed Members about the proposal by the State Key Laboratory in Marine Pollution, City University of Hong Kong (CityU) seeking funding support at \$500,000 for a 14-month project which aimed to conduct baseline ecological studies and document the biodiversity, habitat and substrate associations of marine benthic dinoflagellates in Hong Kong.

32. Note

33. Note

34. The meeting decided that the application should be approved.

Item 4(d) - ECF Project 15/2012 Assessment of conventional, new persistent organic pollutants (POPs) and trace elements in Hong Kong cetaceans [RPVSC Paper 24/2013-14]

35. Ms Sharon TSAI briefed Members about the proposal by the State Key Laboratory in Marine Pollution, CityU seeking funding support at \$986,240 for a 24-month project which aimed to provide comprehensive information for prioritizing the risk and occurrence of a wide range of contaminants of concern in Hong Kong.

36. Note

37. Note

38. The meeting decided that the application should be approved.

[Prof Kenneth LEUNG re-joined the meeting.]

39. Dr Daniel TSANG declared interest for the next item concerning an application from the Polytechnic University of Hong Kong (PolyU) and withdrew from the meeting.

Item 4(e) - ECF Project 20/2012 Developing a rapid detection system for the identification of diesel vehicles with high level of exhaust emissions in Hong Kong [RPVSC Paper 41/2013-14]

40. Ms Sharon TSAI briefed Members about the proposal by PolyU seeking funding support at \$1,667,200 for a 36-month project which aimed to develop a new technology for rapid detection of diesel vehicles with high exhaust emissions in Hong Kong, which would be efficient and economical in application.

41. Note

42. Note

43. Note

44. The meeting decided that the application should be rejected.

45. Prof Kenneth LEUNG and Dr Anderson SHUM declared interest for the items (f), (g) and (h) concerning applications from the University of Hong Kong (HKU) and withdrew from the meeting.

Item 4(f) - ECF Project 10/2012 Photocatalytic degradation of bisphenol A using metal oxide photocatalysts [RPVSC Paper 34/2013-14]

46. Ms Sharon TSAI briefed Members about the proposal by HKU seeking funding support at \$490,000 for a 12-month project which aimed to develop efficient photocatalytic degradation of a common endocrine disruptor pollutant bisphenol A using metal oxide catalysts that were suitable for use in Hong Kong and were environmentally friendly.

47. Note

48. Note

49. Note

50. The meeting decided that the application should be rejected.

Item 4(g) - ECF Project 11/2012 Reducing carbon footprint via bus route

rationalization [RPVSC Paper 27/2013-14]

51. Dr Daniel TSANG informed the meeting that the Co-Investigators (Co-Is) of the project were working in the same department of PolyU as he was, but that they had not discussed this application in any way. The meeting, after review, considered that the situation bore no direct conflict with Dr TSANG's participation in the discussion on this item.

52. Ms Sharon TSAI briefed Members about the proposal by HKU seeking funding support at \$499,240 for a 24-month project which aimed to reduce carbon footprint from buses through developing strategies for bus route rationalization which could minimize effects on profitability of bus companies and service coverage. The project would also provide strategies and recommendations for restructuring bus routes to achieve this purpose.

53. Note

54. Note

55. Note

56. The meeting decided that the application should be rejected.

Item 4(h) - ECF Project 14/2012 Inexpensive method to extract and recycle of precious metals in dental wastes [RPVSC Paper 28/2013-14]

57. Ms Sharon TSAI briefed Members about the proposal by HKU seeking funding support at \$426,420 for a 24-month project which aimed to study and demonstrate the feasibility of extraction and recycling of precious metals (e.g. platinum, silver) in dental wastes.

58. Note

59. Note

60. Note

61. The meeting decided that the application should be rejected.

[Prof Kenneth LEUNG and Dr Anderson SHUM re-joined the meeting.]

62. Dr Daniel TSANG declared interest for the items (i) and (j)

concerning applications from PolyU, and withdrew from the meeting.

Item 4(i) - ECF Project 08/2012 The use of rubberized asphalt mixture incorporated with warm asphalt additives on urban road pavements in Hong Kong [RPVSC Paper 31/2013-14]

63. Ms Sharon TSAI briefed Members about the proposal by PolyU seeking funding support at \$490,000 for a 30-month project which aimed to design rubberized asphalt mix incorporated with warm asphalt additives and to promote the use of such materials in Hong Kong.

64. Note

65. Note

66. Note

67. The meeting decided that the PI should be invited to modify the proposal through taking into account Members' various suggestions. The revised proposal would be further considered by Members.

Item 4(j) - ECF Project 25/2012 Development of an effective software for energy performance assessment and diagnosis of existing information-poor buildings [RPVSC Paper 43/2013-14]

68. Ms Sharon TSAI briefed Members about the proposal by PolyU seeking funding support at \$1,375,000 for a 24-month project which aimed at developing an effective software tool for energy performance assessment and diagnosis of existing buildings with poor information.

69. Note

70. Note

71. Note

72. The meeting decided that the application should be rejected.

73. Mr Lam Chiu-ying declared interest for the next item concerning an application from the Chinese University of Hong Kong (CUHK) and withdrew

from the meeting.

Item 4(k) - ECF Project 22/2012 Monitoring of formaldehyde indoor sources and quantification of their emissions from building materials and household products [RPVSC Paper 35/2013-14]

74. Ms Sharon TSAI briefed Members about the proposal by CUHK seeking funding support at \$500,000 for a 24-month project which aimed to investigate the emission of formaldehyde from building materials and household products by passive flux sampler method; determine the emission of carbonyl compounds from high emission products by environmental emission chamber method and desiccators methods; and draw a calibration curve between the PFS method, chamber test and desiccators test to suit Hong Kong's indoor environment; and develop a formaldehyde emission data bank for household products in Hong Kong.

75. Note

76. Note .

77. The meeting decided that the application should be rejected.

Item 4(l) - ECF Project 23/2012 A study on green consumerism and sustainable lifestyle in Hong Kong: creating a new baseline [RPVSC Paper 36/2013-14]

78. Ms Sharon TSAI briefed Members about the proposal by Hong Kong Baptist University (HKBU) seeking funding support at \$189,520 for a 12-month project which aimed to study Hong Kong consumers' attitude towards green consumerism and sustainable lifestyle.

79. Note

80. Note

81. Note

82. The meeting decided that the application should be rejected.

83. Dr Daniel TSANG declared interest for items (m) and (n)

concerning applications from PolyU and withdrew from the meeting.

Item 4(m) - ECF Project 21/2012 Application of active noise control for improved sound transmission loss across ventilation windows [RPVSC Paper 42/2013-14]

84. Ms Sharon TSAI briefed Members about the proposal by PolyU seeking funding support at \$948,800 for a 32-month project which aimed to investigate the effectiveness of active control system in improving the acoustical performance of ventilation windows, and to develop a prototype for practical implementation. Ms Sharon TSAI further reported that cross-checking with the General Research Fund revealed that the latter had approved funding support for a similar project from the PI, viz., "The aeroacoustics of Helmholtz resonators at low Mach number and its control". In response to the Secretariat's request for clarifications, the PI explained that the two projects were different. The PI's response was tabled for Members' reference.

85. Note .

86. Note

87. Note

88. The meeting decided that the application should be rejected.

Item 4(n) - ECF Project 27/2012 Simultaneous partial nitrification, anammox and denitrification in an innovative fluidized-bed aerated membrane bioreactor (FAMBR)) for reduction of energy consumption and greenhouse gas emission [RPVSC Paper 33/2013-14]

89. Ms Sharon TSAI briefed Members about the proposal by PolyU seeking funding support at \$500,000 for a 24-month project which aimed to develop a novel simultaneous partial nitrification, anammox and denitrification process in an innovative fluidized-bed membrane aerated bioreactor for low biodegradable chemical oxygen demand to nitrogen ratio wastewaters such as landfill leachate and digester reject waters in Hong Kong.

90. Note

91. ^{Note}

92. ^{Note}

93. The meeting decided that the application should be rejected.

[Dr Daniel TSANG re-joined the meeting.]

Item 4(o) - ECF Project 26/2012 Environmental education on sustainability and ecological studies of rivers in Lantau Island [RPVSC Paper 37/2013-14]

94. Ms Sharon TSAI briefed Members about the proposal by HKBU seeking funding support at \$392,120 for a 12-month project which aimed to investigate the fist and benthic macroinvertebrate community structures in three rivers; quantify the sediment concentrations of polycyclic aromatic hydrocarbons and heavy metals (Pb, Zn, Cu, Cd, Cr, Hg, As) related to river ecosystems in the three rivers; and provide the local community with access to environmental knowledge through field trips, thus facilitating their understanding of the important roles of conservation and restoration.

95. ^{Note}

96. ^{Note}

97. The meeting decided that the application should be rejected.

Item 4(p) - ECF Project 13/2013 City carbon portal conference 2: "Policy and technology integration" [RPVSC Paper 23/2013-14]

98. Ms Sharon TSAI briefed Members about the conference project proposed by the Climate Group (Hong Kong) Limited. The total budget for the conference was \$722,800, and the PI sought ECF's funding support at \$500,000 (i.e. about 69.2% of the total budget). The conference aimed to highlight Hong Kong's low carbon leadership through providing learning and partnership opportunities for Hong Kong to identify new strategies, leverage existing initiatives and reach consensus with stakeholders to deliver green growth solutions and accelerate desired low-carbon outcomes.

99. ^{Note}

100. ^{Note} I

101. ^{Note}

102. The meeting decided that in-principle funding support would be given for the items of "venue setup" and "subsidy to invited speakers" at a total budget of \$323,500, on the basis that the applicant organization would not charge any attendance / registration fee for the conference, and on the condition that government departments, green groups, professional institutions and tertiary institutes would also be invited to attend. The applicant organization should also provide the ECF with a record of invitations issued for reference. Any unspent funding should not be used on other budget items of the conference.

103. Dr Daniel TSANG declared interest for the following item concerning applications from PolyU and withdrew from the meeting.

Item 4(q) - ECF Project 24/2012 Smart water leakage detection [RPVSC Paper 32/2013-14]

104. Ms Sharon TSAI briefed Members about the proposal by PolyU seeking funding support at \$498,160 for a 36-month project which aimed to investigate and develop accurate automated systems to detect water pipe leaks.

105. ^{Note} .

106. ^{Note}

107. ^{Note} " .

108. The meeting decided that the application should be rejected.

109. Prof Kenneth LEUNG and Dr Anderson SHUM declared interest for items (r), (s), (t), (u) and (v) concerning applications from HKU and withdrew from the meeting.

Item 4(r) - ECF Project 16/2012 Can stream drift be used to monitor climate

change? Development of a protocol for assessing the effects of temperature rise on biodiversity in Hong Kong streams [RPVSC Paper 29/2013-14]

110. Dr YIP Yin informed the meeting that the PI of the proposed project was previously her supervisor for her postgraduate study. The meeting, after review, considered that the situation bore no direct conflict with Dr YIP Yin's participation in the discussion on this item.

111. Ms Sharon TSAI briefed Members about the proposal by HKU seeking funding support at \$464,500 for a 30-month project which aimed to compare the assemblage composition of stream invertebrates collected in 1983 with new samples obtained using the same methods in 2013 and 2014, with a view to assessing the magnitude of both long-term (1983 vs 2013/14) and short-term (2013 vs 2014) changes in biodiversity. The results would be used to devise a protocol for long-term annual monitoring of stream biodiversity.

112. Note

113. Note

114. The meeting decided that the application should be approved.

Item 4(s) - ECF Project 18/2012 The economic welfare of the Hong Kong Global Geopark: An application of the travel cost method [RPVSC Paper 30/2013-14]

115. Dr Daniel TSANG informed the meeting that the PI of the project had once worked in the same department of PolyU as he was, but the PI had not discussed this application with him in any way. The meeting, after review, considered that the situation bore no direct conflict with Dr Daniel TSANG's participation in the discussion on this item.

116. Ms Sharon TSAI briefed Members about the proposal by HKU seeking funding support at \$290,750 for a 12-month project which aimed to estimate the economic welfare of the Hong Kong Global Geopark through the travel cost method so as to provide scientific information for sustainable management of the unique geological heritage in Hong Kong and to fulfill the

principal co-objectives of conservation and geotourism development.

117. Note

118. The meeting decided that the application should be rejected.

Item 4(t) - ECF Project 19/2012 Revealing historical profile of marine ecological degradation in Hong Kong using paleoecological approaches [RPVSC Paper 38/2013-14]

119. Ms Sharon TSAI briefed Members about the proposal by HKU seeking funding support at \$500,000 for a 36-month project which aimed to quantitatively evaluate the vulnerability of sub-tropical Hong Kong's marine ecosystem against human-induced environmental changes; elucidate critical factor(s) for human-induced marine ecological degradation; develop ecosystem health index using paleoecological data; and reconstruct marine ecological degradation history and pre-impacted natural baseline for the past few hundreds of years in Hong Kong.

120. Note

121. Note

122. The meeting decided that the application should be approved.

Item 4(u) - ECF Project 29/2012 An in-depth investigation of the microbial community underpinning renewable biogas production from North East New Territories landfill [RPVSC Paper 39/2013-14]

123. Ms Sharon TSAI briefed Members about the proposal by HKU seeking funding support at \$498,150 for an 18-month project which aimed to unravel the microbial mystery and identify key interactions in biogas production from landfill sites.

124. Note

125. Note

126. After deliberation, the Chairman concluded that the PI should be invited to provide a more detailed sampling plan of the proposed project for

Members' further consideration.

Item 4(v) - ECF Project 30/2012 To investigate microbial diversity and antibiotic resistant genes in Hong Kong marine sediment [RPVSC Paper 40/2013-14]

127. Dr Daniel TSANG informed the meeting that the Co-Investigator (Co-I) of the project was working in the same department of PolyU as he was, but that the Co-I had not discussed this application with him in any way. The meeting, after review, considered that the situation bore no direct conflict with Dr Daniel TSANG's participation in the discussion on this item.

128. Ms Sharon TSAI briefed Members about the proposal by HKU seeking funding support at \$494,760 for a 12-month project which aimed to investigate microbial diversity and antibiotic resistant genes in Hong Kong marine sediment. Ms TSAI further reported that cross-checking with the GRF revealed that the latter had approved funding support for a project on a similar subject initiated by the PI, viz., "Fates of Antibiotics Resistant Bacteria and Genes in Sewage Treatment Plants". In response to the Secretariat's request for clarifications, the PI explained that the two projects were different. The PI's response was tabled for Members' reference.

129. Note

130. Note

131. The meeting decided that the application should be approved.

[Prof Kenneth LEUNG and Dr Anderson SHUM re-joined the meeting.]

Agenda Item 5: Any Other Business

132. The meeting had no other business to discuss.

Agenda Item 6: Date of Next Meeting

133. The next meeting would be held around February 2013. The

Secretariat would inform Members of the details once available.

134. The meeting ended at 4:30 p.m.

**Secretariat, ECF Research Projects Vetting Sub-committee
December 2013**

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 and / or the performance and other matters related to a specific organization or person. 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".

**Proposed Priority Research Themes
(from 1 April 2014 - 31 March 2016)**

[with some potential research topics for illustrative purposes]

- (a) **Climate Change - Adaptation and Mitigation**
[e.g. energy efficiency, energy audit and use of low carbon energy; green transport technologies such as electric vehicle; carbon emissions measurement, reporting and benchmarking; ecosystem and wildlife adaptation; etc.]

- (b) **Waste Recycling**
[e.g. technology in handling food waste in urban setting; studies on how Government support for waste recycling would be effective and successful; etc.]

- (c) **Biodiversity Studies and Conservation, and Geo Conservation**
[e.g. taxonomic studies of native species; ecological monitoring studies; impacts of and control on invasive alien species, biology and ecology of native species; ecosystem services, vulnerability of biodiversity to climate change; Geopark-related science popularisation methods; etc.]

- (d) **Air quality**
[e.g. air quality and public health; air quality and economic studies; regional air quality in Hong Kong - Pearl River Delta; air quality and transportation (roadside and marine included); etc.]

[Note: The above priority themes aim to be indicative and applications for research projects outside the scope of priority research themes would still be considered on individual merits.]