

**Confirmed Minutes of the 185<sup>th</sup> Meeting of  
the Advisory Council on the Environment  
held on 7 February 2012 at 2:30 pm**

**Present:**

Prof Paul LAM, JP (Chairman)  
Prof CHAU Kwai-cheong, JP (Deputy Chairman)  
Ms Teresa AU  
Dr Dorothy CHAN, BBS  
Mr Oscar CHOW  
Prof FUNG Tung  
Mr Michael JEBSEN, BBS  
Mr Edwin LAU, MH  
Prof LI Xiang-dong  
Ir Dr LO Wai-kwok, BBS, MH, JP  
Dr MAN Chi-sum, JP  
Miss Yolanda NG  
Mr TSANG Kam-lam, JP  
Ms Pansy YAU  
Dr Ray YEP  
Prof Ignatius YU  
Mr Carlson K S CHAN, JP (Secretary)

**Absent with Apologies:**

Ms Betty HO  
Prof Joseph LEE  
Dr Alfred TAM  
Dr Carrie WILLIS, SBS, JP  
Mr Simon WONG, JP  
Dr YAU Wing-kwong

**In Attendance:**

Ms Anissa WONG, JP	Permanent Secretary for the Environment/Director of Environmental Protection
Mr C C LAY	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)

Mr LAU Sing	Assistant Director/Technical Services, Planning Department (PlanD)
Ms Esther LI	Principal Information Officer, Environmental Protection Department (EPD)
Miss Evelyn LEUNG	Chief Executive Officer (CBD), EPD
Ms Joanne CHIN	Executive Officer (CBD), EPD
Ms Daicie TONG	Executive Manager (CBD), EPD

**In Attendance for Agenda Item 3:**

Ms Phyllis LI	Assistant Director (Special Duties), PlanD
Ms Ginger KIANG	Chief Town Planner/Urban Design and Landscape, PlanD
Prof Edward NG	School of Architecture, Chinese University of Hong Kong (CUHK)
Prof Lutz KATZSCHNER	University of Kassel
Dr Chao REN	School of Architecture, CUHK
Mr K S WONG	School of Architecture, CUHK
Ms Betty HO	PlanArch Consultants Limited

**In Attendance for Agenda Item 4:**

Mr C W TSE, JP	Assistant Director (Environmental Assessment), EPD
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**Agenda Item 1 : Confirmation of the draft minutes of the 184<sup>th</sup> meeting held on 16 January 2012**

The draft minutes were confirmed without amendments.

**Agenda Item 2 : Matters arising from the minutes of the 184<sup>th</sup> meeting held on 16 January 2012**

2. There were no matters arising from the minutes of the last meeting.

**Agenda Item 3 : Urban Climatic Map and Standards for Wind Environment Feasibility Study – Stakeholders Engagement**

*(ACE Paper 3/2012)*

3. The Chairman informed Members that a Member had declared interest before the meeting because she was the sub-consultant for this Study, responsible for the stakeholders engagement. She would attend the meeting as a member of the consultancy team. The meeting also noted that three Members were employed by the Chinese University of Hong Kong, the School of Architecture of which was the consultant for the *Urban Climatic Map and Standards for Wind Environment Feasibility Study* (UCM Study), and agreed that the three concerned Members could stay for this item.

4. Ms Phyllis Li briefed Members on the purpose of commissioning the UCM Study. The Urban Heat Island (UHI) effect in Hong Kong was intensifying with rise in urban temperature and decrease in urban wind due to urbanization and global warming. Urban climate should form an important consideration in the planning and building design process to help address the UHI effect. The study started in 2006, with the objectives to (a) examine Hong Kong's urban climatic conditions; (b) identify appropriate planning and design measures to achieve long-term improvement of urban climate; (c) establish a wind performance criterion to determine if a development proposal is acceptable from air ventilation perspective; and (d) refine the air ventilation assessment (AVA) system. The Stakeholders Engagement on the study findings and recommendations commenced in December 2011 and would last until 15 February 2012. Prof Edward Ng briefed Members on the findings and recommendations of the study, including the Urban Climatic Planning Recommendation Map (UC-ReMap) delineating the five urban climatic planning zones (UCPZs), the broad strategic planning actions recommended for each UCPZ, the planning and design measures for improving urban climate, and the refined AVA system, including Wind Performance Criterion for future AVAs.

5. A Member welcomed the UC-ReMap and the Wind Performance Criterion in the refined AVA system. She enquired how the newly introduced mitigation measures could be incorporated in UCPZ 4 and UCPZ 5 which were subject to strong thermal comfort and poor dynamic potential. Prof Edward Ng acknowledged the difficulty and said that the strategy was a progressive

introduction of the mitigation measures starting from individual sites, which could then be agglomerated to form larger sites wherever practicable so as to improve the overall urban living environment in Hong Kong in the long run.

6. A Member said that most people were living in UCPZ4 and UCPZ5 that required improvement. On the other hand, the implementation of the study's recommendations, e.g. reduction in ground coverage of buildings, might call for amendments of the relevant building regulations, which ran contrary to the prevailing practice of the property sector in maximizing the allowed plot ratio when designing their buildings. This concern was echoed by another Member, particularly with regard to building height. Ms Phyllis Li replied that the proposed mitigating design measures would be implemented through the existing planning and development control systems. At district planning level, PlanD would take forward the study recommendations as appropriate when reviewing Outline Zoning Plans (OZPs) by including measures like non-building areas, setbacks, building separations as well as appropriate building height profiles, etc.. The development intensity permitted in the OZPs would not be affected. In planning New Development Areas, AVA would be undertaken to ensure consideration of air ventilation in early planning stage. At project level, AVAs would be required through planning permission and lease conditions. PlanD would also liaise with Buildings Department (BD) to align the proposed measures under the Alternative (Prescriptive) Approach with that specified under the *Sustainable Building Design Guidelines* (SBD Guidelines) currently adopted by BD where appropriate. PlanD recommended the 100% site coverage currently permitted up to 15m be reduced to 65% for AVA-applicable sites, and greenery provision be increased up to 30% for very large sites to help reduce urban temperature, and thereby mitigating the UHI effect.

7. Prof Edward Ng cited the planning success of Singapore in having extensive tree planting in the city in the past decades to cool off urban temperature under its tropical climate. Hong Kong had once enjoyed good air ventilation benefited from summer monsoons for cooling off city temperature in the past. It would probably take similar time frame to implement the UCM Study recommendations to bring about gradual improvements in Hong Kong's urban climate and the quality of its living environment. Prof Lutz Katzschner supplemented that it was important for the Government to map out the planning

strategy to bring about urban climate improvement measures, such as the refined AVA system, by linking up the green belts and air paths which currently were in dispersed pockets in different parts of the city. Prof Ng further explained that canyons caused by very tall buildings were not conducive to air ventilation. With the tall buildings in Hong Kong, controlling building height alone was not effective and should be coupled with other five planning and design measures in order to realize the improvement.

8. In response to a Member's enquiry on the planning and design strategy of Hong Kong with other comparable cities, Prof Edward Ng said that different jurisdictions had to devise their strategies in consideration of their own climatic conditions. The strategy for Hong Kong emphasized both greening and air ventilation whereas Singapore had to rely solely on greenery as it was not endowed with much wind resources. On the Member's suggestion of factoring in air pollution on top of human thermal comfort in coming up with the Wind Performance Criterion, Ms Phyllis Li said that the primary objective of UCM Study was to improve urban climate for healthier and more comfortable and sustainable urban living. Air pollution was beyond the scope of the current study.

9. In response to Members' concern on the proposed implementation mechanism, Ms Phyllis Li said that the existing statutory and administrative mechanisms would be sufficient to take forward the study's recommendations. With incorporation of the UC-ReMap and the refined AVA system into the Technical Circular and *Hong Kong Planning Standards and Guidelines* (HKPSG), both the government and private sectors had to carry out AVA for projects that might have air ventilation implications under the existing planning and development control system. Regarding the long-term goal for wind performance, Prof Edward Ng said that it was to plan wisely so that the desirable wind environment would be restored and maintained. The goal should match with citizens' expectations and the need for thermal comfort which would evolve with time.

10. In response to a Member's enquiries on the implementation of the AVA, particularly in very large sites like Kai Tak and its implications on the project's visual impact and permitted development intensity, Ms Phyllis Li explained that while controlling the building volume would be beneficial to

reduce heat dissipation and reduction of thermal load, it was not the sole determining factor for improvement. Given the same development intensity, the impact of individual projects on urban climate could vary subject to the overall site and building designs. In this respect, PlanD was working to incorporate the proposed planning and building design measures into the HKPSG to provide guidance to government departments and property developers in the private sector on their project planning and design.

11. Prof Edward Ng said that PlanD had adopted different design measures to promote better urban climate, e.g. street grids in alignment with prevailing wind direction, more greenery and reduced ground coverage in planning new development areas like Kai Tak. Ms Betty Ho supplemented that refinements to the AVA system were proposed to control developments along the waterfront. In case of government land, there would be proper assessments to help determine the appropriate development parameters such as plot ratio and building height before land disposal. She said that one of the study objectives was to ensure that the planning and design measures would be taken into account during the planning and development process.

12. In response to the enquiries of a Member on the effect of greenery and water body for easing urban heat problems, Prof Edward Ng said that while vertical greening could assist in lowering urban temperature, the impact would depend much on the location of greening, i.e. the lower, the better. In view that buildings in Hong Kong were very tall, roof-top greening could not benefit the pedestrian environment. Similarly, while water could reduce temperature, it would reflect heat. Tree planting at ground level was a preferred option as air mass could be trapped under tree canopies to cool off the surrounding areas. The foremost challenge facing developments in Hong Kong was the optimization of all the planning and design measures to achieve a sustained balance of environmental, social and economic needs, with urban climate being one of the important considerations in the process.

13. In response to a Member's comment on his experience in Shinjuku, Japan and his enquiry on the progress of the engagement exercise, Prof Edward Ng said that the city morphology such as building heights and ground coverage in Japan was very different from Hong Kong. He emphasized that the wide setback in Shinjuku had encouraged wind penetration, heat

dissipation and thereby improvement to urban climatic environment in general. As for the progress of the engagement exercise, Ms Betty Ho advised that there were briefings, engagement forum and technical experts workshop for different stakeholders in the past two months. The participants had shown support to the study and urged to implement the measures to provide a sustainable climatic environment in Hong Kong. There were also written comments on the study. A report on the outcome of the engagement would be prepared after conclusion of the exercise in February 2012.

14. A Member enquired on the delineation of UCPZs under the UC-ReMap and the impact of developments over time on the UCPZ of an area. Prof Edward Ng explained that the UC-ReMap should be interpreted by pattern or cluster of the UCPZ but not individual pixels. It was recommended that the UC-ReMap would be reviewed once every five to ten years to cater for changes in urban climatic characteristics due to developments. Prof Katzschner supplemented that the development within one UCPZ would affect its neighbourhood and the change would be dynamic.

15. A Member cited the examples in Europe and enquired if provision of water bodies such as fountains would be recommended at particular locations to give the cooling effect to the urban area. Prof Edward Ng pointed out that Hong Kong was very humid in summer months. Water bodies would not be effective to re-radiate heat as compared with the situation in countries with lower humidity level. The cooling effect of trees had proved far more superior to surface water. It would be more important to get these first order measures as proposed in the Study in place first. Prof Katzschner said that water would give direct cooling effect on the skin and its impact on the neighbouring area was relatively low. Further, surface water increased the humidity level which would not be conducive to human thermal comfort.

16. Ms Phyllis Li supplemented that Hong Kong was endowed with many natural attributes which the city should preserve and fully utilize, e.g. the long coastline as well as river valleys and bays such as Shing Mun River, Tuen Mun River and Tseung Kwan O Bay. These natural features could bring in sea breezes and river breezes to keep down urban temperature. She pointed out that with prudent planning to allow wind penetration into the core urban areas, there should be gradual improvements to the urban living environment in Hong

Kong.

17. A Member recalled that there had once been a proposal to use air shafts along Yee Wo Street and Hennessy Road in Causeway Bay to enable better air circulation along the road corridors. Prof Edward Ng responded that while Singapore had a similar arrangement at Clarke Quay, he did not recommend going for such active system which might result in increased energy consumption.

18. To address Members' concern on possible hurdles that might impede the effective implementation of UCM recommendations in Hong Kong, Ms Phyllis Li said that the private sector might have worry if the study proposal would create new obstacles to the development process. However, she stressed that the Government was trying to align the study recommendations with the SBD Guidelines in order to simplify the entire planning and design process and to strike a balance between development and control. The UCM Study aimed to guide a more sensible and sustainable development, with mitigating design measures. The recommendations should not frustrate land development.

19. The Chairman summarized Members' views that the Council was supportive of the UCM Study's recommendations to improve the urban climate and urban living environment. The Council agreed that the planning and building design measures should be implemented as soon as possible through the concerted efforts of both the public and the private sectors to bring about gradual improvements in the urban climate and the quality of the living environment in Hong Kong.

**Agenda Item 4 : Report on the 119<sup>th</sup> Environmental Impact Assessment (EIA) Subcommittee meeting**  
*(ACE Paper 4/2012)*

20. The Chairman informed Members that the paper reported on the recommendations of the Environmental Impact Assessment (EIA) Subcommittee on the four Environmental Impact Assessment (EIA) reports submitted by the MTR Corporation Limited (MTRC) on "Shatin to Central Link (SCL)" which described the following sections of the SCL alignment, namely –

- (i) Tai Wai to Hung Hom Section;
- (ii) Mong Kok East to Hung Hom Section;
- (iii) Hung Hom to Admiralty Section; and
- (iv) Stabling Sidings at Hung Hom Freight Yard

21. The Chairman informed Members that a Member has declared that her company was involved in the public engagement exercise relating to the Hung Hom-Admiralty Section. The meeting agreed that she should abstain from the meeting to avoid any potential conflict of interest. There was no other Member declaring interest on this discussion item.

22. The Chairman informed Members that the public inspection period of the EIA reports was from 24 November 2011 to 23 December 2011. EPD had received nine sets of public comments during the public inspection period. The public comments had been circulated to Subcommittee Members for reference before the Subcommittee meeting. MTRC's response to the comments raised by a Member on the reports had also been circulated for information of Members before the Subcommittee meeting.

23. The Chairman of EIA Subcommittee reported on the recommendations of the Subcommittee that the EIA reports could be endorsed with conditions.

24. The meeting agreed with the recommendations of the EIA Subcommittee on the EIA reports. The Chairman concluded that the Council endorsed the four EIA reports with the conditions and the recommendations as set out in paragraphs 24 and 25 of the paper.

#### **Agenda Item 5: Any other business**

##### Retreat

25. The Chairman confirmed with Members that the retreat would be held at the Hyatt Regency Hong Kong, Shatin on 20 February 2012. The Secretariat would inform Members of the details of the programme and other logistical arrangements of the retreat in due course.

Tentative items for discussion at the next meeting

26. The Chairman informed Members that the agenda was being compiled. Members would be informed in due course.

EIA Reports for Members

27. A Member suggested if the Secretariat could provide soft copies or the web links of the EIA reports in lieu of printed copies given the bulk of the reports and in consideration of saving paper. The Chairman informed Members that the issue of adopting a paperless meeting had been discussed at a previous meeting. Apart from security consideration, Members had indicated the practical difficulties to go through the considerable number of charts and graphs as well as different site maps usually involved in an EIA report. Further, there was the legal dimension which the Secretariat had to look into as to the validity of sending out soft copies instead of a full set of paper copy of the EIA report to Members for their comments as required under the EIA Ordinance (EIAO).

28. The Secretary supplemented that a conscious decision was reached in the previous meeting that EIA Subcommittee was not an appropriate forum to introduce the paperless meeting due to the special operation of the Subcommittee. While the issue could be further reviewed, the Secretariat should seek advice from relevant officers on the legal aspect of the requirement before advising on the way forward. Secretariat

**Agenda Item 6 : Date of next meeting**

29. The Chairman informed Members that the next meeting was scheduled for 19 March 2012.